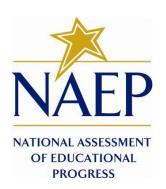
#### NATIONAL CENTER FOR EDUCATION STATISTICS NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

## National Assessment of Educational Progress (NAEP) 2019 and 2020

Long-Term Trend (LTT) 2020 Update'4

# Appendix K1 NAEP 2019 Student Questionnaires

OMB# 1850-0928 v.16



October 2018

No changes since v.11

Appendix F provides the library of possible items to be used in the NAEP 2019 and 2020 questionnaires. This appendix (Appendix K1) includes the final version of the NAEP 2019 Student questionnaires, as well as a summary of any minor, non-substantive, wording changes made as a result of pilot and cognitive interview results and final reviews. In addition, note that some of the questionnaires will utilize spiraling in order to minimize respondent burden while maximizing the amount of items that can be piloted. The spiral maps for these questionnaires are also included. The confidentiality citation has been updated in September 2018 and is consistent with that provided in Part A.

Abbreviation Key
CAFS: Computer Access and Familiarity
ESQ: Extended Student Questionnaire
NIES: National Indian Education Study

The items presented in this appendix are those to be used in the digitally based assessments. Some of the questionnaires will also be administered in paper based assessments. Adaptations to the item-level directions may be made, as appropriate (for example, "select one answer choice on each row" in DBA would become "fill in one oval on each line" in PBA).

## Contents

$\sim$ 1 $^{\circ}$	<u> </u>	
Student	( )IIASTIAT	nnairae
Ottadent	Question	mancs

Student Login Screen	5
Appendix K-1a: Summary of Changes Operational and Pilot Student Debrief	
Grades 4, 8, and 12	6
Appendix K-1b: Operational and Pilot Student Debrief Grades 4, 8, and 12	
	9
Appendix K-1c: Summary of Changes Operational Grade 4 Core	11
Appendix K-1d: Operational Grade 4 Core	17
Appendix K-1e: Summary of Changes Pilot Grade 4 Core	25
Appendix K-1f: Pilot Grade 4 Core	31
Appendix K-1g: Spiral Map Grade 4 Core	38
Appendix K-1h: Summary of Changes Operational Grade 8 Core	41
Appendix K-1i: Operational Grade 8 Core	49
Appendix K-1j: Summary of Changes Pilot Grade 8 Core	58
Appendix K-1k: Pilot Grade 8 Core	65
Appendix K-1I: Spiral Map Grade 8 Core	74
Appendix K-1m: Summary of Changes Operational Grade 12 Core	77
Appendix K-1n: Operational Grade 12 Core	87
Appendix K-1o: Summary of Changes Operational Grade 4 Reading	97
Appendix K-1p: Operational Grade 4 Reading	103
Appendix K-1q: Summary of Changes Pilot Grade 4 Reading	110
Appendix K-1r: Pilot Grade 4 Reading	
Appendix K-1s: Spiral Map Grade 4 Reading	125
Appendix K-1t: Summary of Changes Operational Grade 8 Reading	128
Appendix K-1u: Operational Grade 8 Reading	135
Appendix K-1v: Summary of Changes Pilot Grade 8 Reading	145
Appendix K-1w: Pilot Grade 8 Reading	154
Appendix K-1x: Spiral Map Grade 8 Reading	163
Appendix K-1y: Summary of Changes Operational Grade 12 Reading	167
Appendix K-1z: Operational Grade 12 Reading	175
Appendix K-1aa: Summary of Changes Operational Grade 4 Mathematics	
	186
Appendix K-1ab: Operational Grade 4 Mathematics	193
Appendix K-1ac: Summary of Changes Pilot Grade 4 Mathematics	200
Appendix K-1ad: Pilot Grade 4 Mathematics	208
Appendix K-1ae: Spiral Map Grade 4 Mathematics	216

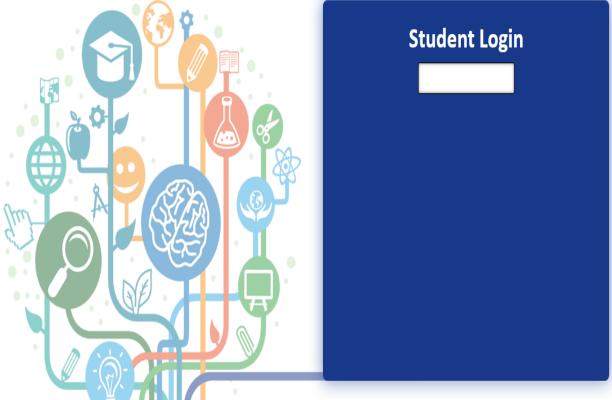
Appendix K-1af: Summary of Changes Operational Grade 8 Mathematics	
	219
Appendix K-1ag: Operational Grade 8 Mathematics	230
Appendix K-1ah: Summary of Changes Pilot Grade 8 Mathematics	240
Appendix K-1ai: Pilot Grade 8 Mathematics	252
Appendix K-1aj: Spiral Map Grade 8 Mathematics	262
Appendix K-1ak: Summary of Changes Operational Grade 12 Mathematics	
	266
Appendix K-1al: Operational Grade 12 Mathematics	280
Appendix K-1am: Summary of Changes Operational Grade 4 Science	291
Appendix K-1an: Operational Grade 4 Science	299
Appendix K-1ao: Summary of Changes Operational Grade 8 Science	308
Appendix K-1ap: Operational Grade 8 Science	315
Appendix K-1aq: Summary of Changes Operational Grade 12 Science	323
Appendix K-1ar: Operational Grade 12 Science	333
Appendix K-1as: Summary of Changes Operational Grade 4 NIES	344
Appendix K-1at: Operational Grade 4 NIES	354
Appendix K-1au: Summary of Changes Operational Grade 8 NIES	365
Appendix K-1av: Operational Grade 8 NIES	376
Appendix K-1aw: Summary of Changes Operational Grade 4 CAFS	
Appendix K-1ax: Operational Grade 4 CAFS	395
Appendix K-1ay: Summary of Changes Operational Grade 8 CAFS	403
Appendix K-1az: Operational Grade 8 CAFS	413
Appendix K-1ba: Summary of Changes Operational Grade 12 CAFS	428
Appendix K-1bb: Operational Grade 12 CAFS	443
Appendix K-1bc: Summary of Changes Operational Grade 4 ESQ	458
Appendix K-1bd: Operational Grade 4 ESQ	466
Appendix K-1be: Summary of Changes Operational Grade 8 ESQ	479
Appendix K-1bf: Operational Grade 8 ESQ	488
Appendix K-1bg: Summary of Changes Operational Grade 12 ESQ	505
Appendix K-1bh: Operational Grade 12 ESQ	514

#### **Student Login Screen**

## Welcome to NAEP

Grade 04 Booklet M151 School (FULCRUM), 9813151

Session: QC0401 Router: Disconnected Admin: Disconnected



According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850-0928. The time required to complete this information collection is estimated to average 90 minutes, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving this collection, or any comments or concerns regarding the status of your individual submission, please write to: National Assessment of Educational Progress (NAEP), National Center for Education Statistics (NCES), Potomac Center Place, 550 12th St., SW, 4th floor, Washington, DC 20202.

#### OMB No. 1850-0928 APPROVAL EXPIRES 09/30/2021

National Center for Education Statistics (NCES) is authorized to conduct NAEP by the National Assessment of Educational Progress Authorization Act (20 U.S.C. §9622). All of the information provided by participants may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §1513). By law, every NCES employee as well as every NCES agent, such as contractors and NAEP coordinators, has taken an oath and is subject to a jail term of up to 5 years, a fine of \$250,000, or both if he or she willfully discloses ANY identifiable information about you. Electronic submission of your information will be monitored for viruses, malware, and other threats by Federal employees and contractors in accordance with the Cybersecurity Enhancement Act of 2015. The collected information will be combined across respondents to produce statistical reports.

eNAEP version 4.1.1.34969, 9/6/18 9:27 AM (EST). Database version 673, 8/31/18 7:13 AM (EST) eNAEP Chrome Extension Version 3.1.5

## Appendix K-1a: Summary of Changes Operational and Pilot Student Debrief Grades 4, 8, and 12

Previous item		<b>2019 item</b>	D/A/ R/NC+	Rationale	
1. How important was it to you to do well on this test?  Description  Somewhat important  Important  Very important  Very important	VICENSE	N/A		D	To keep student burden low, this item was dropped.
(2018 Grade 4, 8, and 12)	VICIONI				
2. How easy or difficult was this test?  © Extremely difficult  © Quite difficult  © Somewhat difficult  © Somewhat easy  © Quite easy  © Extremely easy  (2018 Grade 4, 8, and 12)		I. How easy or difficult  Extremely difficult  Quite difficult  Somewhat difficult  Somewhat easy  Quite easy  Extremely easy	VID6013	NC	N/A
3. How much effort did you apply to succeed on this test?  No effort at all  Very little effort  Some effort  Quite a bit of effort  A lot of effort  (2018 Grade 4, 8, and 12)	VIOSSASS	2. How much effort did you apply to succeed on this test?  ① No effort at all ① Very little effort ② Some effort ② Quite a bit of effort ② A lot of effort	VHIDASI	NC	N/A
4. How challenging was taking this test?  © Not challenging at all  © A little challenging  © Somewhat challenging  © Quite challenging  © Extremely challenging  (2018 Grade 4, 8, and 12)	унтью	N/A		D	To keep student burden low, this item was dropped.

Previous item	2019 item	D/A/ R/NC+	Rationale
<ul> <li>5. How much time pressure did you feel when taking this test?</li> <li>No time pressure at all</li> <li>A little bit of time pressure</li> <li>Some time pressure</li> <li>Quite a bit of time pressure</li> <li>A lot of time pressure</li> </ul>	N/A	D	To keep student burden low, this item was dropped.

## Appendix K-1b: Operational and Pilot Student Debrief Grades 4, 8, and 12

1.	How	easy	or	difficult	was	this	test
----	-----	------	----	-----------	-----	------	------

- Extremely difficult
- © Somewhat difficult
- Somewhat easy
- © Quite easy
- © Extremely easy

#### 2. How much effort did you apply to succeed on this test?

- No effort at all
- ® Very little effort
- © Some effort
- Quite a bit of effort
- A lot of effort

## **Appendix K-1c: Summary of Changes Operational Grade 4 Core**

2019 item			
	D/A/ R/NC+	Rationale	
<ul> <li>3. Are you Hispanic or Latino? Select one or more answer choices.</li> <li>No, I am not Hispanic or Latino.</li> <li>Yes, I am Mexican, Mexican American, or Chicano.</li> <li>Yes, I am Puerto Rican or Puerto Rican American.</li> <li>Yes, I am Cuban or Cuban American.</li> <li>Yes, I am from some other Hispanic or Latino background.</li> </ul>	VH24387	NC	N/A
4. Which of the following best describes you? Select one or more answer choices.   White  Black or African American.  Asian  American Indian or Alaska Native  Native Hawaiian or other Pacific Islander	VH240588	NC	N/A
5. About how many books are there in your home?  © Few (0–10)  © Enough to fill one shelf (11–25)  © Enough to fill one bookcase (26–100)  © Enough to fill several bookcases (more than 100)	VII240186	NC	N/A
	<ul> <li>⚠ Asian</li> <li>⚠ American Indian or Alaska Native</li> <li>⚠ Native Hawaiian or other Pacific Islander</li> </ul> Issue: Race/Ethnicity 5. About how many books are there in your home? <ul> <li>♠ Few (0-10)</li> <li>♠ Enough to fill one shelf (11-25)</li> <li>♠ Enough to fill one bookcase (26-100)</li> <li>♠ Enough to fill several bookcases (more than 100)</li> </ul>	Asian  American Indian or Alaska Native  Native Hawaiian or other Pacific Islander     Issue: Race/Ethnicity	Asian  American Indian or Alaska Native  Native Hawaiian or other Pacific Islander  Issue: Race/Ethnicity  About how many books are there in your home?  Few (0–10)  Enough to fill one shelf (11–25)  Enough to fill one bookcase (26–100)

		2	2019 O	perational Grade 4 Core S	Student				
Previous item				2019 item	D/A/ R/NC+	Rationale			
9. Do you have any of the following in your home	e? Select one answer ch	oice on each row.	VH271104	6. Do you have any of the following in your hom	R	Due to			
	Yes	No				concerns			
a. Access to the Internet	Ø	(1)	VH271105	a. Access to the Internet	Yes	No ®	VH271105		about
b. Clothes dryer just for your family	Ø	(1)	VH336756	b. Your own bedroom	0	100	VH336762		
c. Dishwasher	Ø	(1)	VH336759	c. A desktop or laptop computer (including	•	•	VH591976		content
d. Your own bedroom	<b>®</b>	(6)	VH336762	Chromebooks) that you can use	Φ	(1)	41591976		relevance and
e. A desktop or laptop computer (including Chromebooks) that you can use f. A tablet (for example, Surface Pro, iPad,	0	(1)	VH591976	d. A tablet (for example, Surface Pro, iPad, Kindle Fire) that you can use	<b>®</b>	•	VH271110		to keep
Kindle Fire) that you can use g. A smartphone (for example, iPhone,	∅	(1)	VH271110	e. A smartphone (for example, iPhone, Samsung Galaxy, HTC One) that you can use	•	•	VH271112		student
Samsung Galaxy, HTC One) that you can use	•	•	VH271112			J			burden low, sub-items b and c were dropped.
(2018 Grade 4)			VH354591	Issue: Socioeconomic Status			VH354591		
10. How often do you use the Internet for homes  Never  About once or twice a month  About once or twice a week  Almost every day  Every day  (2018 Grade 4)			VIEDI99	7. How often do you use the Internet for homew  Never  About once or twice a month  About once or twice a week  Almost every day  Every day  Issue: Technology Use	NC NC	N/A N/A			
None				None					
® 1 or 2 days				1 or 2 days					
© 3 or 4 days				© 3 or 4 days					
© 5 to 10 days				© 5 to 10 days					
More than 10 days				More than 10 days					
(2018 Grade 4)				Issue: School Climate					
12. How often do you talk about things you have your family?	studied in school with	someone in	VH240189	9. How often do you talk about things you have syour family?	studied in school with	someone in	VH240189	NC	N/A
<ul> <li>Never or hardly ever</li> </ul>				<ul> <li>Never or hardly ever</li> </ul>				1	
⑤ Once every few weeks				Once every few weeks				1	
About once a week				About once a week					
Two or three times a week				Two or three times a week					
© Every day				© Every day					
(2018 Grade 4)				Issue: Socioeconomic Status					

revious item				2019 item	D/A/ R/NC+ NC	Rationale N/A			
Do any of the following people live in your he row.	ome? Select one ansv	wer choice on each	VH271144	Do any of the following people live in your he row.					
	Yes	No			Yes	No	1		
a. Mother	<b>®</b>	•	VH271145	a. Mother			VH271145		
b. Stepmother	<b>®</b>	(1)	VH271146	b. Stepmother	<b>®</b>	(8)	VH271145 VH271146		
c. Foster mother or other female legal guardian	0	(8)	VH271147	c. Foster mother or other female legal guardian	@	®	VH271147		
d. Father	<b>®</b>	(1)	VH271148	d. Father	Φ	•	VH271148		
e. Stepfather	(4)	(1)	VH271149	e. Stepfather	(3)	•	VH271149		
f. Foster father or other male legal guardian	<b>®</b>	•	VH271150	f. Foster father or other male legal guardian	<b>®</b>	<b>®</b>	VH271150		
In this school year, how often did you use a laptor Chromebooks) during your classes at school?	op or desktop compu	ter (including		11. In this school year, how often did you use a la Chromebooks) during your classes at school?	nptop or desktop com	puter (including	VH591969	NC	N/A
Never				Never					
In some classes				In some classes					
In about half of the classes				© In about half of the classes					
In more than half of the classes				In more than half of the classes					
① In all or almost all classes				© In all or almost all classes					
2018 Grade 4)				Issue: Technology Use					
		-1.	VH271276		ic sor site		VH271276	NC	N/A
15. In this school year, how often did you use a table Kindle Fire) during your classes at school?	t (for example, Surfac	ce Pro, iPad,		12. In this school year, how often did you use a ta Kindle Fire) during your classes at school?	140				
Never				Never					
In some classes				In some classes					
<ul> <li>In about half of the classes</li> </ul>				© In about half of the classes					
In more than half of the classes				In more than half of the classes					
In all or almost all classes				In all or almost all classes					
2018 Grade 4)				Issue: Technology Use					

revious item							2019 item							D/A/ R/NC+	Rationale
6. How much does each one answer choice on		ng statements	describe a per	rson like you?	Select	VH271337	13. How much does each choice on each row.	R	After examining						
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me			data from th
. I finish whatever I begin.	@	<b>®</b>	0	Φ	<b>©</b>	VH271338	a. I finish whatever I begin.	<b>®</b>	<b>®</b>	0	Φ	© V	H733142		two version
. I try very hard even after making mistakes.	0	(1)	0	Φ	<b>(D)</b>	VH271339	b. I try very hard even after making mistakes.	<b>®</b>	<b>®</b>	0	Φ	(D)	H733143		of this item
I keep working hard even when I feel like quitting.	0	•	0	Φ	<b>©</b>	VH271342	c. I keep working hard even when I feel like quitting.	<b>®</b>	®	0	0	(b)	H733145		that were
I keep trying to improve myself, even when it takes a long time to get there.	0	•	0	Φ	Φ.	VH271345	d. I keep trying to improve myself, even when it takes a long time to get there.	<b>®</b>	<b>®</b>	0	•	Φ \	H733144		in the pilot, one version
7. How much does each choice on each row.	Not at all like me	A little bit	Somewhat like me	Quite a bit		h									of the item was droppe
I finish whatever I begin.	Ф	@	0	0	0	VH753142									
I try very hard even after making mistakes.	@	•	0	0	Ф	VH733143									
I keep working hard even when I feel like quitting.	•	0	0	0	Φ	VII733145									
. I keep trying to improve myself, even when it takes a long time to get there.	@	(3)	0	•	θ	VH733144									
2018 Grade 4)	6.1		6.1 6 P	101		VH271367	Issue: Grit  15. In this school year, how choice on each row.	w often have y	vou done each	of the followi	ng? Select one	answer answer	VH271367	NC	N/A
8. In this school year, no choice on each row.	Never or	Less than	About half	More than	All or			Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			
	hardly ever	half of the time	of the time	half of the time	almost all of the time		a. I started working on assignments right			1.14					
I started working on assignments right away rather than waiting until the last	0	•	0	Φ	<b>©</b>	VH271370	away rather than waiting until the last minute.	0	(3)	0	0	•	VH271370		
minute.  I paid attention and						VH271372	<ul> <li>I paid attention and resisted distractions.</li> </ul>	⊗	<b>®</b>	0	Φ	Φ	VH271372		
resisted distractions.  I stayed on task	@	•	0	Φ	•		c. I stayed on task without reminders from my teacher.	@	(1)	0	Φ	•	VH271374		
without reminders from my teacher.	<b>®</b>	•	0	Φ	•	VH271374	d. I paid attention in class even when I was	0	®	0	Φ	•	VH271375		
. I paid attention in class even when I was	0	<b>®</b>	0	Φ	<b>(D)</b>	VH271375	not interested.	•	9						

revious item							2019 item						D/A/ R/NC+	Rationale	
19. How much does each one answer choice on		ng statements	describe a per	son like you?	Select	VH271749	14. How much does each of the following statements describe you? Select one answer choice on each row.							R	After examining
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me			data from th
n. I like complex problems more than easy problems.	Ø	<b>®</b>	0	Φ	<b>©</b>	VH271750	a. I like complex problems more than easy problems.	<b>®</b>	®	0	0	<b>(</b>	VH733150		two versions
I like activities that challenge my thinking abilities.	Ø	®	0	•	<b>©</b>	VH271752	b. I like activities that challenge my thinking abilities.	<b>®</b>	(8)	0	0	•	VH733151		of this item that were
. I enjoy situations where I will have to think about something.	<b>®</b>	(1)	0	0	•	VH171753	c. I enjoy situations where I will have to think about something.	0	®	0	Θ	•	VH733155		administere in the pilot,
<ol> <li>I enjoy thinking about new solutions to problems.</li> </ol>	•	ூ	0	•	•	VH271756	d. I enjoy thinking about new solutions to problems.	8	(3)	0	0	Θ	VH733154		one version of the item
problems nore than easy problems.  I like activities that challenge my thinking abilities.  I enjoy situations where I will have to think about	© ©	100	0 0	© ©	Φ Φ	VH733151 VH733151 VH733155									
something. d. I enjoy thinking about	Φ	•	0	Φ	©	VH733154	<b>Issue:</b> Desire for	l earning	g						
d. I enjoy thinking about new solutions to problems.															
d. I enjoy thinking about new solutions to			f the following	g ways about y	rour	VH271934	16. In this school year, ho school? Select one ans	w often have	you felt any o	f the following	g ways about y	70ur	VH271934	NC	N/A
d. I enjoy thinking about new solutions to problems.  O18 Grade 4)  21. In this school year, he			About half of the time	ways about y  More than half of the time	All or almost all o the time		16. In this school year, ho	w often have	you felt any o	About half of the time	More than half of the time	All or almost all of the time		NC	N/A
d. I enjoy thinking about new solutions to problems.  O18 Grade 4)  21. In this school year, he	swer choice or Never or	Less than half of the	About half	More than half of the	All or almost all o		16. In this school year, ho	w often have wer choice or Never or	you felt any on each row.  Less than half of the	About half	More than half of the	All or		NC	N/A

## **Appendix K-1d: Operational Grade 4 Core**

VILIDA	∩21	1

1.	How	easy	or	difficult	was	this	test?
----	-----	------	----	-----------	-----	------	-------

- Extremely difficult
- Quite difficult
- Somewhat difficult
- Somewhat easy
- Quite easy
- © Extremely easy

#### 2. How much effort did you apply to succeed on this test?

- No effort at all
- Very little effort
- © Some effort
- Quite a bit of effort
- A lot of effort

VH240387

#### **3.** Are you Hispanic or Latino? Select **one or more** answer choices.

- No, I am not Hispanic or Latino.
- (B) Yes, I am Mexican, Mexican American, or Chicano.
- © Yes, I am Puerto Rican or Puerto Rican American.
- Tes, I am Cuban or Cuban American.
- © Yes, I am from some other Hispanic or Latino background.

4.	Which of the follo	wing best describ	es you? Select <b>one o</b>	more answer choices.
----	--------------------	-------------------	-----------------------------	----------------------

- White
- ® Black or African American
- Asian
- © Native Hawaiian or other Pacific Islander

- **5.** About how many books are there in your home?
  - **◎** Few (0–10)
  - ® Enough to fill one shelf (11–25)
  - © Enough to fill one bookcase (26–100)
  - © Enough to fill several bookcases (more than 100)

**6.** Do you have any of the following in your home? Select **one** answer choice on each row.

	Yes	No	
a. Access to the Internet	(A)	®	VH271105
b. Your own bedroom	A	®	VH336762
c. A desktop or laptop computer (including Chromebooks) that you can use	<b>(A)</b>	<b>®</b>	VH591976
d. A tablet (for example, Surface Pro, iPad, Kindle Fire) that you can use	<b>(A)</b>	<b>®</b>	VH271110
e. A smartphone (for example, iPhone, Samsung Galaxy, HTC One) that you can use	<b>@</b>	<b>®</b>	VH271112

VH354591

- 7. How often do you use the Internet for homework at home?
  - Never
  - About once or twice a month
  - About once or twice a week
  - Almost every day
  - © Every day

- 8. How many days were you absent from school in the last month?
  - None
  - ® 1 or 2 days
  - © 3 or 4 days
  - © 5 to 10 days
  - © More than 10 days

- **9.** How often do you talk about things you have studied in school with someone in your family?
  - Never or hardly ever
  - Once every few weeks
  - About once a week
  - Two or three times a week
  - © Every day

**10.** Do any of the following people live in your home? Select **one** answer choice on each row.

	Yes	No	
a. Mother	(A)	®	VH271145
b. Stepmother	<b>(A)</b>	®	VH271146
c. Foster mother or other female legal guardian	<b>®</b>	®	VH271147
d. Father	<b>(A)</b>	®	VH271148
e. Stepfather	(A)	®	VH271149
f. Foster father or other male legal guardian	(A)	®	VH271150

- **11.** In this school year, how often did you use a **laptop or desktop computer** (including Chromebooks) during your classes at school?
  - Never
  - In some classes
  - © In about half of the classes
  - In more than half of the classes
  - © In all or almost all classes

- **12.** In this school year, how often did you use a **tablet** (for example, Surface Pro, iPad, Kindle Fire) during your classes at school?
  - Never
  - In some classes
  - In about half of the classes
  - In more than half of the classes
  - © In all or almost all classes

**13.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me	
a.	I finish whatever I begin.	<b>(A)</b>	B	O	0	Œ	VH733142
b.	I try very hard even after making mistakes.	(A)	B	0	0	Œ	VH733143
c.	I keep working hard even when I feel like quitting.	<b>(</b> A)	®	0	0	Ē	VH733145
d.	I keep trying to improve myself, even when it takes a long time to get there.	(8)	®	0	0	Œ	VH733144

**14.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me	
a.	I like complex problems more than easy problems.	(A)	®	0	0	©.	VH733150
b.	I like activities that challenge my thinking abilities.	<b>(</b> A)	®	0	0	©	VH733151
c.	I enjoy situations where I will have to think about something.	0	<b>®</b>	0	Φ	©.	VH733155
d.	I enjoy thinking about new solutions to problems.	<b>(A)</b>	ß	©	0	©	VH733154

VH271367

**15.** In this school year, how often have you done each of the following? Select **one** answer choice on each row.

		Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
assignm away ra	l working on lents right ther than until the last	<b>®</b>	<b>®</b>	0	0	©.	VH271370
	tention and distractions.	<b>(A)</b>	B	0	0	Ē	VH271372
	on task reminders y teacher.	(A)	®	0	0	©	VH271374
d. I paid at class eve not inte	en when I was	(A)	®	0	0	©	VH271375

**16.** In this school year, how often have you felt any of the following ways about your school? Select **one** answer choice on each row.

	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a. I felt awkward and out of place at school.	<b>(A)</b>	B	0	0	Ē	VH271942
b. I felt happy at school.	(A)	®	0	0	(E)	VH271944
c. I felt that I learned something that I can use in my daily life.	<b>(A)</b>	®	0	0	Œ	VH336903

## **Appendix K-1e: Summary of Changes Pilot Grade 4 Core**

Previous item				2019 item			VH240387	D/A/ R/NC+	Rationale	
6. Are you Hispanic or Latino? Select one or more  No, I am not Hispanic or Latino.  Yes, I am Mexican, Mexican American, or G  Yes, I am Puerto Rican or Puerto Rican Am  Yes, I am Cuban or Cuban American.  Yes, I am from some other Hispanic or Latin	Chicano. erican.		VH2.0387	13. Are you Hispanic or Latino? Select one or mo  ② No, I am not Hispanic or Latino. ③ Yes, I am Mexican, Mexican American, or ② Yes, I am Puerto Rican or Puerto Rican An ⑤ Yes, I am Cuban or Cuban American. ② Yes, I am from some other Hispanic or Lat	NC	N/A				
2017 Grade 4)				Issue: Race/Ethnicity						
. Which of the following best describes you? Sele  White  Black or African American  Asian  American Indian or Alaska Native  Native Hawaiian or other Pacific Islander	ect one or more answer	r choices.	V1(24)388	14. Which of the following best describes you? S  White Black or African American Asian American Indian or Alaska Native Native Hawaiian or other Pacific Islander	NC	N/A				
2017 Grade 4)				Issue: Race/Ethnicity						
<ul> <li>S. About how many books are there in your hom</li> <li>Few (0-10)</li> <li>Enough to fill one shelf (11-25)</li> <li>Enough to fill one bookcase (26-100)</li> <li>Enough to fill several bookcases (more than</li> </ul>			VH240186	<ol> <li>About how many books are there in your hom</li> <li>Few (0-10)</li> <li>Enough to fill one shelf (11-25)</li> <li>Enough to fill one bookcase (26-100)</li> <li>Enough to fill several bookcases (more than</li> </ol>	NC	N/A				
2017 Grade 4)				Issue: Socioeconomic Status						
9. Do you have any of the following in your hom	ne? Select one answer cl	hoice on each row.	VH271104	2. Do you have any of the following in your home	e? Select one answer c	hoice on each row.	VH880711	R	Sub-items b	
a. Access to the Internet	Yes ②	No ®	VH271105	a. Access to the Internet	Yes ③	No	VH271405		and c were dropped to	
b. Clothes dryer just for your family c. Dishwasher	<b>®</b>	® ®	VH336756	b. Your own bedroom	<b>®</b>	•	VH336762		keep student	
d. Your own bedroom	0	®	VH336762	c. Your own desktop or laptop computer (including Chromebooks)	•	•	VH853088		•	
e. A desktop or laptop computer (including Chromebooks) that you can use	8	•	VH591976	d. Your own tablet (for example, Surface Pro, iPad, or Kindle Fire)	<b>®</b>	(5)	VH853090		burden low,	
f. A tablet (for example, Surface Pro, iPad, Kindle Fire) that you can use	0	•	VH271110	e. Your own smartphone (for example, iPhone, Samsung Galaxy, or HTC One)					and sub-items	
g. A smartphone (for example, iPhone, Samsung Galaxy, HTC One) that you can use	⊗	•	VH271112						e, f, and g were revised to examine performance of alternative	

Previous item				2019 item				D/A/ R/NC+	Rationale	
10. How often do you use the Internet for hom	nework at home?		VH354591	3. How often do you use the Internet for homey	vork at home?		VH354591	NC	N/A	
Never				Never						
About once or twice a month				About once or twice a month						
About once or twice a week				<ul> <li>About once or twice a week</li> </ul>						
Almost every day				Almost every day						
© Every day				Every day						
(2017 Grade 4)				Issue: Technology Use						
11. How many days were you absent from scho	ool in the last month?		VH240190	4. How many days were you absent from scho	ol in the last month?		VH240190	NC	N/A	
None				None						
® 1 or 2 days				® 1 or 2 days						
© 3 or 4 days				© 3 or 4 days						
5 to 10 days				© 5 to 10 days						
© More than 10 days				More than 10 days						
(2017 Grade 4)				Issue: School Climate			VH240189			
12. How often do you talk about things you ha your family?	ive studied in school w	ith someone in	VH240189	How often do you talk about things you ha your family?	NC	N/A				
<ul> <li>Never or hardly ever</li> </ul>				<ul> <li>Never or hardly ever</li> </ul>						
Once every few weeks				Once every few weeks						
About once a week				<ul> <li>About once a week</li> </ul>						
Two or three times a week				Two or three times a week						
© Every day				© Every day						
(2017 Grade 4)				Issue: Socioeconomic Status						
13. Do any of the following people live in your row.	r home? Select one ans	wer choice on each	VH271144	Do any of the following people live in you row.	r home? Select one answ	wer choice on each	VH271144	NC	N/A	
	Yes	No			Yes	No				
a. Mother	0	(8)	VH271145	a. Mother	<b>®</b>	(1)	VH271145			
b. Stepmother c. Foster mother or other female legal	0	(8)	VH271146	b. Stepmother	0	•	VH271146			
guardian	0	•	VH271147	c. Foster mother or other female legal guardian	0	(1)	VH271147			
d. Father e. Stepfather	0	•	VH271148 VH271149	d. Father	0	<b>®</b>	VH271148			
f. Foster father or other male legal guardian	0	(B)	VH271149 VH271150	e. Stepfather	0	•	VH271149			

Previous item							2019 item							D/A/ R/NC+	Rationale
In this school year, how Chromebooks) during y			or desktop co	mputer (inclu	ıding	VH591969	7. In this school year, how often did you use a laptop or desktop computer (including Chromebooks) during your classes at school?							NC	N/A
Never     Never															
① In some classes															
© In about half of the classes  © In about half of the classes															
© In more than half of the classes															
© In all or almost all classes  © In all or almost all classes															
2017 Grade 4)							Issue: Technology	y Use							
15. In this school year, how often did you use a tablet (for example, Surface Pro, iPad, Kindle Fire) during your classes at school?  ② Never ③ In some classes ③ In about half of the classes ⑤ In more than half of the classes ⑤ In all or almost all classes ① In all or almost all classes							8. In this school year, how often did you use a tablet (for example, Surface Pro, iPad, Kindle Fire) during your classes at school?  ① Never ① In some classes ② In about half of the classes ① In more than half of the classes ① In all or almost all classes  Issue: Technology Use						NC R	N/A The stem of	
one answer choice on	Not at all	A little bit	Somewhat	Quite a bit	Very much	ı	choice on each row.	Not at all	A little bit	Somewhat	Ouite a bit	Very much			this item wa
a. I finish whatever I	like me	like me	like me	like me	like me	1		like me	like me	like me	like me	like me			revised for
begin.	<b>®</b>	(1)	0	Ф	0	VH271338	<ol> <li>I finish whatever I begin.</li> </ol>	<b>(A)</b>	(10)	0	Φ	•	VH733142		clarity.
<ul> <li>I try very hard even after making mistakes.</li> </ul>	•	•	0	Φ	0	VH271339	<ul> <li>I try very hard even after making mistakes.</li> </ul>	0	(3)	0	Φ	0	VH733143		
c. I keep working hard even when I feel like quitting.	@	•	0	0	Œ	VH271342	c. I keep working hard even when I feel like quitting.	<b>®</b>	(8)	0	0	<b>®</b>	VH733145		
d. I keep trying to improve myself, even when it takes a long time to get there.	<b>®</b>	<b>®</b>	0	Φ	•	VH271345	d. I keep trying to improve myself, even when it takes a long	<b>®</b>	<b>®</b>	0	Φ	<b>©</b>	VH733144		

revious item							2019 item							D/A/ R/NC+	Rationale
<ol><li>In this school year, ho choice on each row.</li></ol>	w often have y	ou done each	of the following	ng? Select one	answer	VH271367	<ol><li>In this school year, how choice on each row.</li></ol>	w often have y	ou done each	of the followir	ng? Select one	answer	VH271367	NC	N/A
	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			
I started working on assignments right away rather than waiting until the last minute.	<b>®</b>	<b>®</b>	0	•	Ф	VH271370	a. I started working on assignments right away rather than waiting until the last minute.	0	<b>®</b>	0	Φ	Ф	VH271370		
<ul> <li>I paid attention and resisted distractions.</li> </ul>	Φ	(1)	0	•	0	VH271372	b. I paid attention and resisted distractions.	0	<b>®</b>	0	0	•	VH271372		
<ul> <li>I stayed on task without reminders</li> </ul>	<b>®</b>	<b>®</b>	0	Φ	Φ	VH271374	c. I stayed on task without reminders	0	•	©	Φ	Φ	VH271374		
from my teacher.	- 100							_	100			-			
from my teacher.  d. I paid attention in class even when I was not interested.	Φ	Ѿ	0	Φ	Ф	VH271375	from my teacher.  d. I paid attention in class even when I was not interested.	0	(3)	0	Φ	Φ	VH271375		
d. I paid attention in class even when I was not interested.  O17 Grade 4)	of the following					VH271375	d. I paid attention in class even when I was	•				•	VH271375	R	
d. I paid attention in class even when I was not interested.  O17 Grade 4)	of the following						from my teacher. d. I paid attention in class even when I was not interested.  Issue: Grit  11. How much does each	•		es describe you		•		R	this item wa
d. I paid attention in class even when I was not interested.  O17 Grade 4)  18. How much does each	of the following each row.	ng statements	describe a pe	rson like you	? Select		from my teacher. d. I paid attention in class even when I was not interested.  Issue: Grit  11. How much does each	of the follow	ing statement	s describe you	? Select one a	winswer  Very much like me		R	The stem of this item wa revised for clarity.
d. I paid attention in class even when I was not interested.  O17 Grade 4)  18. How much does each one answer choice on one answer choice on one answer choice on one problems more than	of the following ach row.  Not at all like me	ng statements A little bit like me	describe a pe Somewhat like me	rson like you Quite a bit like me	? Select  Very much like me	VH271749	from my teacher. d. I paid attention in class even when I was not interested.  Issue: Grit  11. How much does each choice on each row.  a. I like complex problems more than	of the follow  Not at all like me	ing statement  A little bit like me	s describe you Somewhat like me	? Select one a  Quite a bit like me	unswer  Very much like me	VH733149	R	this item wa
d. I paid attention in class even when I was not interested.  O17 Grade 4)  18. How much does each one answer choice on one answer choice on the problems more than easy problems.  I like activities that challenge my thinking	of the following each row.  Not at all like me	ng statements  A little bit like me	describe a pe	rson like you  Quite a bit like me	Select  Very much like me	VH271749 VH271750	from my teacher. d. I paid attention in class even when I was not interested.  Issue: Grit  11. How much does each choice on each row.  a. I like complex problems more than easy problems. b. I like activities that challenge my thinking	of the follow  Not at all like me	ing statement  A little bit like me	s describe you  Somewhat like me	? Select one a  Quite a bit like me	winswer  Very much like me	VH73M49	R	this item wa

						201	9 Pilot Grade 4	Core S	tuden	t					
Previous item							2019 item							D/A/ R/NC+	Rationale
19. In this school year, ho school? Select one ans		each row.	f the following			VH271934	12. In this school year, ho school? Select one ans	w often have wer choice or	you felt any o n each row.	f the following	; ways about y	your	VH27J934	R	New sub- items (d, e,
	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			and f) were
a. I felt awkward and out of place at school.     b. I felt happy at school.	8 8	® ®	0 0	0	Θ	VH271942	<ul> <li>I felt awkward and out of place at school.</li> </ul>	0	<b>(b)</b>	0	0	0	VH271942		added to expand
c. I felt that I learned something that I can use in my daily life.	0	•	0	0	Ф	VH336903	b. I felt happy at school. c. I felt that I learned something that I can use in my daily life.	0	®	0	0	(f)	VH271944 VH336903		measurement of this
							d. I worried about crime and violence at my school.	<b>®</b>	®	0	0	Œ	VH271940		content.
							e. I felt my teachers treated me fairly.	<b>®</b>	<b>B</b>	0	0	®	ўН853117		
							f. I felt safe on my way to or from school.	<b>®</b>	®	0	•	Φ	VH853118		
(2017 Grade 4)						VH254028	Issue: School Clin	nate							
20. Write the ZIP code of your line of your	our home add	lress in the bo	ox.				N/A							D	Due to the time burden associated with completing this item and to keep student burden low,
(2017 Grade 4)															this item was dropped.

## **Appendix K-1f: Pilot Grade 4 Core**

171	12	40	114	26

- 1. About how many books are there in your home?
  - ♠ Few (0–10)
  - ® Enough to fill one shelf (11–25)
  - © Enough to fill one bookcase (26–100)
  - © Enough to fill several bookcases (more than 100)

2. Do you have any of the following in your home? Select **one** answer choice on each row.

VH880711

	Yes	No	
a. Access to the Internet	(A)	®	VH271105
b. Your own bedroom	<b>(A)</b>	®	VH336762
c. Your own desktop or laptop computer (including Chromebooks)	(9)	®	VH853088
d. Your own tablet (for example, Surface Pro, iPad, or Kindle Fire)	(4)	®	VH853090
e. Your own smartphone (for example, iPhone, Samsung Galaxy, or HTC One)	<b>®</b>	®	VH853089

- 3. How often do you use the Internet for homework at home?
  - Never
  - About once or twice a month
  - About once or twice a week
  - Almost every day
  - © Every day

4.	How	many	days	were	you	absent	from	school	in	the	last	month	1?
----	-----	------	------	------	-----	--------	------	--------	----	-----	------	-------	----

- None
- ® 1 or 2 days
- © 3 or 4 days
- ① 5 to 10 days
- © More than 10 days

## **5.** How often do you talk about things you have studied in school with someone in your family?

- Never or hardly ever
- ® Once every few weeks
- About once a week
- Two or three times a week
- © Every day

**6.** Do any of the following people live in your home? Select **one** answer choice on each row.

	Yes	No	
a. Mother	(A)	®	VH271145
b. Stepmother	(A)	®	VH271146
c. Foster mother or other female legal guardian	<b>(a)</b>	®	VH271147
d. Father	(A)	®	VH271148
e. Stepfather	(A)	®	VH271149
f. Foster father or other male legal guardian	(A)	₿	VH271150

VH591969

- **7.** In this school year, how often did you use a **laptop or desktop computer** (including Chromebooks) during your classes at school?
  - Never
  - In some classes
  - In about half of the classes
  - In more than half of the classes
  - In all or almost all classes

- **8.** In this school year, how often did you use a **tablet** (for example, Surface Pro, iPad, Kindle Fire) during your classes at school?
  - Never
  - In some classes
  - In about half of the classes
  - In more than half of the classes
  - © In all or almost all classes

**9.** How much does each of the following statements describe you? Select **one** answer choice on each row.

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me	
a. I finish whatever I begin.	<b>(A)</b>	B	O	0	Ē	VH733142
b. I try very hard even after making mistakes.	<b>(A)</b>	B	0	0	Œ	VH733143
c. I keep working hard even when I feel like quitting.	<b>(A)</b>	®	0	0	©	VH733145
d. I keep trying to improve myself, even when it takes a long time to get there.	<b>(A)</b>	®	0	0	Œ	VH733144

VH271367

**10.** In this school year, how often have you done each of the following? Select **one** answer choice on each row.

		Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a.	I started working on assignments right away rather than waiting until the last minute.	(4)	<b>®</b>	0	0	©.	VH271370
b.	I paid attention and resisted distractions.	<b>(A)</b>	B	0	0	Œ	VH271372
c.	I stayed on task without reminders from my teacher.	(A)	®	0	0	Œ	VH271374
d.	I paid attention in class even when I was not interested.	<b>(A)</b>	®	0	0	Œ	VH271375

**11.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me	
prob	te complex blems more than y problems.	(8)	®	0	0	©	VH733150
chal	te activities that llenge my thinking lities.	(A)	®	0	0	Œ	VH733151
whe	ijoy situations ere I will have to nk about nething.	0	®	0	Φ	©.	VH733155
new	joy thinking about v solutions to blems.	(A)	®	0	0	Œ	VH733154

**12.** In this school year, how often have you felt any of the following ways about your school? Select **one** answer choice on each row.

		Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a.	I felt awkward and out of place at school.	<b>(A)</b>	B	0	0	Œ	VH271942
b.	I felt happy at school.	(A)	®	0	0	Œ	VH271944
c.	I felt that I learned something that I can use in my daily life.	(A)	®	0	0	Œ	VH336903
d.	I worried about crime and violence at my school.	(8)	®	0	0	Œ	VH271940
e.	I felt my teachers treated me fairly.	<b>(A)</b>	B	0	0	Œ	VH853117
f.	I felt safe on my way to or from school.	<b>(A)</b>	B	0	0	Œ	VH853118

VH240387

- **13.** Are you Hispanic or Latino? Select **one or more** answer choices.
  - No, I am not Hispanic or Latino.
  - (3) Yes, I am Mexican, Mexican American, or Chicano.
  - © Yes, I am Puerto Rican or Puerto Rican American.
  - Yes, I am Cuban or Cuban American.
  - ① Yes, I am from some other Hispanic or Latino background.

- **14.** Which of the following best describes you? Select **one or more** answer choices.
  - White
  - Black or African American
  - © Asian

  - © Native Hawaiian or other Pacific Islander

# **Appendix K-1g: Spiral Map Grade 4 Core**

Accnum	Grade	Grade 4 OMB PDF Sequence Number	Number of Grade 4 booklets item appears in	Grade 4 booklets item appears in
VH240186	4, 8, 12	01 00	3	1, 2, 3
VH880711	4, 8, 12	02 00	2	1, 2
VH271105	4, 8, 12	02 <u>_</u> 01	2	1, 2
VH336762	4, 8, 12	02_02	2	1, 2
VH853088	4, 8, 12	02_03	2	1, 2
VH853090	4, 8, 12	02_04	2	1, 2
VH853089	4, 8, 12	02_05	2	1, 2
VH354591	4, 8, 12	03_00	3	1, 2, 3
VH240190	4, 8, 12	04_00	1	3
VH240189	4, 8, 12	05_00	1	3
VH271144	4, 8, 12	06_00	2	1, 2
VH271145	4, 8, 12	06_01	2	1, 2
VH271146	4, 8, 12	06_02	2	1, 2
VH271147	4, 8, 12	06_03	2	1, 2
VH271148	4, 8, 12	06_04	2	1, 2
VH271149	4, 8, 12	06_05	2	1, 2
VH271150	4, 8, 12	06_06	2	1, 2
VH591969	4, 8, 12	07_00	1	3
VH271276	4, 8, 12	08_00	1	3
VH733141	4, 8, 12	09_00	2	1, 2
VH733142	4, 8, 12	09_01	2	1, 2
VH733143	4, 8, 12	09_02	2	1, 2
VH733145	4, 8, 12	09_03	2	1, 2
VH733144	4, 8, 12	09_04	2	1, 2
VH271367	4, 8, 12	10_00	2	1, 2
VH271370	4, 8, 12	10_01	2	1, 2
VH271372	4, 8, 12	10_02	2	1, 2
VH271374	4, 8, 12	10_03	2	1, 2
VH271375	4, 8, 12	10_04	2	1, 2

ide		Grade 4 booklets item appears in
, 12 11_00	1	3
, 12 11_01	1	3
, 12 11_02	1	3
, 12 11_03	1	3
, 12 11_04	1	3
, 12 12_00	2	1, 2
, 12 12_01	2	1, 2
, 12 12_02	2	1, 2
, 12 12_03	2	1, 2
, 12 12_04	2	1, 2
, 12 12_05	2	1, 2
, 12 13_00	3	1, 2, 3
, 12 14 00	3	1, 2, 3
	Sequence Number  11_00 12	Grade 4 OMB PDF Sequence Number booklets item appears in  12 11_00

## **Appendix K-1h: Summary of Changes Operational Grade 8 Core**

2019	Operational Grade 8 Core Student			
Previous item	2019 item		D/A/ R/NC+	Rationale
6. Are you Hispanic or Latino? Select one or more answer choices.  ② No, I am not Hispanic or Latino.  ③ Yes, I am Mexican, Mexican American, or Chicano.  ③ Yes, I am Puerto Rican or Puerto Rican American.  ③ Yes, I am Cuban or Cuban American.  ④ Yes, I am from some other Hispanic or Latino background.	3. Are you Hispanic or Latino? Select one or more answer choices.  ① No, I am not Hispanic or Latino.  ① Yes, I am Mexican, Mexican American, or Chicano.  ② Yes, I am Puerto Rican or Puerto Rican American.  ① Yes, I am Cuban or Cuban American.  ① Yes, I am from some other Hispanic or Latino background.	VH240357	NC	N/A
(2018 Grade 8)	Issue: Race/Ethnicity			
7. Which of the following best describes you? Select one or more answer choices.  © White  © Black or African American  © Asian  © American Indian or Alaska Native  © Native Hawaiian or other Pacific Islander	4. Which of the following best describes you? Select one or more answer choices.  White  Black or African American  Asian  American Indian or Alaska Native  Native Hawaiian or other Pacific Islander	VH240388	NC	N/A
(2018 Grade 8)	Issue: Race/Ethnicity			
8. About how many books are there in your home?  © Few (0-10)  © Enough to fill one shelf (11-25)  © Enough to fill one bookcase (26-100)  © Enough to fill several bookcases (more than 100)	5. About how many books are there in your home?  © Few (0-10)  © Enough to fill one shelf (11-25)  © Enough to fill one bookcase (26-100)  © Enough to fill several bookcases (more than 100)	VH240186	NC	N/A
(2018 Grade 8)	Issue: Socioeconomic Status			

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

revious item				2019 item					Rationale
9. Do you have any of the following in your home	e? Select one answer ch	oice on each row.	VH271104	6. Do you have any of the following in your home	R	Due to			
	Yes	No			Yes	No			concerns
a. Access to the Internet	<b>®</b>	(1)	VH271105	a. Access to the Internet	<b>®</b>	(1)	VH271105		about
b. Clothes dryer just for your family	<b>®</b>	(1)	VH336756	b. Your own bedroom	<b>®</b>	(1)	VH336762		about
c. Dishwasher	<b>(A)</b>	(1)	VH336759	c. A desktop or laptop computer (including	@	<b>®</b>	VH591976		content
d. Your own bedroom	<b>®</b>	(1)	VH336762	Chromebooks) that you can use d. A tablet (for example, Surface Pro, iPad,			1 71		relevance a
e. A desktop or laptop computer (including Chromebooks) that you can use	<b>®</b>	(6)	VH591976	Kindle Fire) that you can use	<b>®</b>	(1)	VH271110		
f. A tablet (for example, Surface Pro, iPad, Kindle Fire) that you can use	<b>©</b>	(1)	VH271110	e. A smartphone (for example, iPhone, Samsung Galaxy, HTC One) that you can	<b>®</b>	<b>®</b>	VH27[112		to keep
g. A smartphone (for example, iPhone, Samsung Galaxy, HTC One) that you can use	<b>®</b>	•	VH271112	use					student burden low,
2018 Grade 8)				Issue: Socioeconomic Status					sub-items b and c were dropped.
2018 Grade 8)			VH354591	+			VH354591	1	
	als as bassas?		711104071	7. How often do you use the Internet for homework	at home?			NC	N/A
How often do you use the Internet for homework	rk at home!				at nome:				
Never				Never					
About once or twice a month				About once or twice a month					
About once or twice a week				<ul> <li>About once or twice a week</li> </ul>					
Almost every day				Almost every day					
© Every day				© Every day					
2018 Grade 8)				Issue: Technology Use					
How many days were you absent from school i	in the last month?		VH240190	8. How many days were you absent from school in	NC	N/A			
None				None					
® 1 or 2 days				® 1 or 2 days					
© 3 or 4 days				© 3 or 4 days					
© 5 to 10 days				© 5 to 10 days					
More than 10 days				More than 10 days					
2018 Grade 8)				Issue: School Climate					
2. How often do you talk about things you have st your family?	tudied in school with	someone in	VH240189	How often do you talk about things you have stud your family?	ied in school with so	meone in	VH240189	NC	N/A
Never or hardly ever				<ul> <li>Never or hardly ever</li> </ul>					
Once every few weeks									
				Once every few weeks					
About once a week				About once a week					
Two or three times a week				Two or three times a week					
© Every day									

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

	2019 O	perational Grade 8 Core Student			
Previous item		2019 item		D/A/ R/NC+	Rationale
13. How far in school did your mother go?	VH240192		VH240192	NC	N/A
		10. How far in school did your mother go?			
She did not finish high school.		She did not finish high school.			
<ul> <li>She graduated from high school.</li> <li>She had some education after high school.</li> </ul>		She graduated from high school.			
She had some education after high school.     She graduated from college.		She had some education after high school.			
		She graduated from college.			
© I don't know.		① I don't know.			
(2018 Grade 8)		Issue: Socioeconomic Status			
A II of the latest section of	VH240193	12 9: 12	VH240193	NC	N/A
4. How far in school did your father go?		11. How far in school did your father go?			
He did not finish high school.		A He did not finish high school.			
He graduated from high school.		He graduated from high school.			
He had some education after high school.		He had some education after high school.			
He graduated from college.		He graduated from college.			
□ I don't know.		© I don't know.			
(2018 Grade 8)		Issue: Socioeconomic Status			
	VH336776	A S S S S S S S S S S S S S S S S S S S	VH336776	NC	N/A
15. Does your mother work?		12. Does your mother work?		1	1.77
Yes					
® No		® No			
© I don't know.		© I don't know.			
(2018 Grade 8)					
•		Issue: Socioeconomic Status			
16. Does your father work?	VH336779	13. Does your father work?	VH336779	NC	N/A
∇ Yes     ∇ Yes					
® No		® No			
© I don't know.		© I don't know.			
(2018 Grade 8)					
2010 Grade of		Issue: Socioeconomic Status			

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

a. Mother b. Stepmother c. Foster mother or other fenguardian d. Father e. Stepfather f. Foster father or other male  2018 Grade 8)  8. In this school year, how of Chromebooks) during you  • Never • In some classes	male legal le legal guardi: often did you u ur classes at se	in lise a laptop o	Yes	N d d d	0 D D D D D D	VHIZ5165 VHIZ5165 VHIZ5164 VHIZ5164 VHIZ5164 VHIZ5166 VHIZ5166 VHIZ5166	a. Mother b. Stepmother c. Foster mother or other freguardian d. Father e. Stepfather f. Foster father or other many contents of the contents	emale legal	in your home	Yes  ©  ©		No  ©  ©	VH271145 VH271145 VH271146 VH271147	NC	N/A
b. Stepmother c. Foster mother or other fen guardian d. Father e. Stepfather f. Foster father or other male  2018 Grade 8)  8. In this school year, how of Chromebooks) during you  © Never	e legal guardi. often did you u ar classes at se	ase a laptop o	© © © ©	0 0 0	D D D D D	VHZ71145 VHZ71147 VHZ71146 VHZ71146	b. Stepmother     c. Foster mother or other foguardian     d. Father     e. Stepfather			<ul><li>Ø</li><li>Ø</li></ul>		(B)	VH271146		
b. Stepmother c. Foster mother or other fen guardian d. Father e. Stepfather f. Foster father or other male  2018 Grade 8)  8. In this school year, how of Chromebooks) during you  © Never	e legal guardi. often did you u ar classes at se	ase a laptop o	© © ©	9	D D D	VHZ71145 VHZ71147 VHZ71146 VHZ71146	b. Stepmother     c. Foster mother or other foguardian     d. Father     e. Stepfather			<ul><li>Ø</li><li>Ø</li></ul>		<b>®</b>	VH271146		
c. Foster mother or other fen guardian d. Father e. Stepfather f. Foster father or other male 2018 Grade 8) 8. In this school year, how of Chromebooks) during you	e legal guardi. often did you u ar classes at se	ase a laptop o	© © ©	q q	D D	VH173147 VH173148 VH173148	b. Stepmother     c. Foster mother or other foguardian     d. Father     e. Stepfather			<b>®</b>		<b>®</b>			
guardian d. Father e. Stepfather f. Foster father or other male 2018 Grade 8)  8. In this school year, how of Chromebooks) during you  © Never	e legal guardi. often did you u ar classes at se	ase a laptop o	© ©	9	D D	VH171148 VH171149	guardian d. Father e. Stepfather			®		(1)	VH27(147		
e. Stepfather f. Foster father or other male  2018 Grade 8)  8. In this school year, how of Chromebooks) during you  • Never	ften did you u ur classes at s	ase a laptop o	<b>(a)</b>	9	D	VH271149	d. Father e. Stepfather								1
f. Foster father or other male 2018 Grade 8)  8. In this school year, how of Chromebooks) during you  • Never	ften did you u ur classes at s	ase a laptop o	0				e. Stepfather				_		VH271148		
2018 Grade 8)  8. In this school year, how of Chromebooks) during you  • Never	ften did you u ur classes at s	ase a laptop o	*			112.1130				<ul><li>(a)</li><li>(b)</li></ul>		<b>®</b>	VH271148 VH271149		
8. In this school year, how of Chromebooks) during you  Never	ur classes at s	ise a laptop o	r desktop com					ale legal guar	lian	0		(8)	VH271150		
Chromebooks) during you  Never	ur classes at s	ise a laptop o chool?	r desktop com				Issue: Socioecono	omic Sta	tus						
Chromebooks) during you  Never	ur classes at s	ise a laptop o chool?	r desktop com			VH591969	issue. Socioecono	Jilic Sta	tus				VH591969		
							15. In this school year, how Chromebooks) during y  Never  In some classes  In about half of the  In more than half of  In all or almost all of	classes a classes f the classes classes		or desktop co	<b>mputer</b> (inclu	iding.		NC	N/A
99. In this school year, how often did you use a tablet (for example, Surface Pro, iPad, Kindle Fire) during your classes at school?  © Never  © In some classes  © In about half of the classes  © In more than half of the classes  © In all or almost all classes							16. In this school year, how often did you use a tablet (for example, Surface Pro, iPad, Kindle Fire) during your classes at school?  ① Never ① In some classes ② In about half of the classes ① In more than half of the classes ① In all or almost all classes							NC	N/A
2018 Grade 8)						VH271337	Issue: Technology	y Use					_		
20. How much does each of one answer choice on ea		g statements	describe a per	rson like you?	Select	7886(123)	<ol><li>How much does each choice on each row.</li></ol>	of the follow	ing statemen	ts describe yo	u? Select one	answer	VH733141	R	After examining
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me			data from
a. I finish whatever I begin.	0	<b>®</b>	0	0	0	VH271338	a. I finish whatever I	- 1.20 1.10	-11/7-12	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			VIJ737142		two versio
b. I try very hard even	0	<b>®</b>	0	Φ	<b>©</b>	VH271339	begin.	@	•	0	0	©	VH733142		
after making mistakes.	W	₩	Ψ.	w	Œ	VIII. (155)	<ul> <li>I try very hard even after making mistakes.</li> </ul>	0	(1)	0	0	Φ	VH733143		of this iten
c. I keep working hard even when I feel like quitting.	<b>®</b>	ூ	0	0	•	VH271342	c. I keep working hard even when I feel like	<b>®</b>	<b>®</b>	0	0	0	VH733145		that were
d. I keep trying to improve myself, even when it takes a long time to get there.	<b>@</b>	<b>®</b>	0	9	•	VH271345	quitting. d. I keep trying to improve myself, even	<b>®</b>	<b>®</b>	0	Θ	Φ	VH733144		administer in the pilot

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

evious item							2019 item						D/A/ R/NC+	Rationale	
. How much does each choice on each row.	of the followi	ing statement	s describe you	? Select one a	answer	VH733141	Issue: Grit								of the item was dropped
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me										was dropped
I finish whatever I begin.	<b>®</b>	Φ	0	Φ	Ф	VH733142									
I try very hard even after making mistakes.	0	•	0	0	0	VH733143									
I keep working hard even when I feel like quitting.	8	<b>®</b>	0	0	Ф	VH733145									
I keep trying to improve myself, even when it takes a long time to get there.	<b>®</b>	ⅎ	0	Φ	Ф	VH733144									
018 Grade 8) 2. In this school year, how	v often have y	ou done each	of the followin	ng? Select one	answer	VH271367	19. In this school year, ho	w often have y	you done each	of the following	ng? Select one	answer	VB271367	NC	N/A
choice on each row.	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all o the time	i	choice on each row.	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	f		
I started working on assignments right away rather than waiting until the last minute.	Θ	®	0	0	Ð	VH271370	a. I started working on assignments right away rather than waiting until the last	@	•	0	0	Ф	VH271370		
I paid attention and resisted distractions.	0	(1)	0	Φ	•	VH271372	b. I paid attention and	Φ	<b>®</b>	0	•	©	VH271372		
I stayed on task without reminders from my teacher.	•	<b>®</b>	0	0	<b>©</b>	VH271374	resisted distractions. c. I stayed on task without reminders	@	100	0	•	0	VH271374		
I paid attention in class even when I was not interested.	<b>®</b>	<b>®</b>	0	•	•	VH271375	from my teacher.  d. I paid attention in class even when I was not interested.	<b>®</b>	•	0	0	©	VH271375		
018 Grade 8) 23. How much does each one answer choice or		ving statemen	ts describe a p	erson like you	1? Select	VH271749	Issue: Grit  18. How much does each	of the follow	ring statemen	ts describe you	u? Select <b>one</b>	answer	VH733149	R	After
one answer enoice of	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me		choice on each row.	Not at all	A little bit	Somewhat	Quite a bit	Very much			examining data from th
a. I like complex problems more than easy problems.	<b>®</b>	(3)	0	Φ	(D)	VH271750	a. I like complex problems more than	like me	like me	like me	like me	like me	VH733150		two versions
<ul> <li>I like activities that challenge my thinking</li> </ul>	<b>(a)</b>	•	0	Φ	0	VH271752	b. I like activities that challenge my thinking	<b>⊗</b>	@	0	•	0	VH733151		of this item that were
abilities.				Φ	•	VH2.71753	abilities. c. I enjoy situations								administere
abilities. c. I enjoy situations where I will have to think about something.	@	(8)	0	0		VHL/1/53	where I will have to think about	<b>®</b>	■	0	0	0	VH733155		in the pilot,

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

					20	)19 O	perational Grade 8 Core Student		
Previous item							2019 item D// R/N	A/ NC+	Rationale
24. How much does each choice on each row.	of the follow	ing statement	ts describe you	a? Select one	answer	VH733149	Issue: Desire for Learning		of the item was dropped.
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me				was dropped.
I like complex problems more than easy problems.	@	(8)	0	0	®	VH733150			
<ul> <li>I like activities that challenge my thinking abilities.</li> </ul>	<b>@</b>	(1)	0	0	<b>©</b>	VH733151			
c. I enjoy situations where I will have to think about something.	<b>®</b>	•	0	0	Ф	VH733155			
d. I enjoy thinking about new solutions to problems.	<b>®</b>	•	0	0	Θ	VH733154			
(2010 Curada 0)									
(2018 Grade 8)  25. In this school year, h school? Select one ar	ow often have swer choice o	you felt any c on each row.	of the following	g ways about y	rour	VH271034	20. In this school year, how often have you felt any of the following ways about your school? Select one answer choice on each row.		N/A
	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time		Never or half of the time About half of the time About half of the time About half of the time time All or half of the time		
a. I felt awkward and out of place at school.	Ø	0	0	(B)	0	VH271942	a. I felt awkward and out of place at school.		
b. I telt happy at school.     c. I felt that I learned something that I can use in my daily life.	60	0	0	Φ	0	VICTORIA	b. I felt happy at school.		
(2242.2.1.2)	•						something that I can will use in my daily life.		
(2018 Grade 8)							Issue: School Climate		
26. Write the ZIP code of ye	our home add	ress in the bo	x.			VH258028	N/A D		Due to the time burden associated with completing this item and to keep
(2018 Grade 8)									student burden low, this item was dropped.

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

2019 Op	2019 Operational Grade 8 Core Student									
Previous item	2019 item	D/A/ R/NC+	Rationale							
2. Are you taking an art course now, or have you taken an art course this year?  Yes No	<ul> <li>21. Are you taking an art course this school year (for example, drawing, painting, or studio art)?</li> <li>Yes</li> <li>No</li> </ul>	A	This item was adapted from the arts questionnaire to assess student participation in arts							
(2016 Grade 8)	Issue: Educational Experiences		coursework.							

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

## **Appendix K-1i: Operational Grade 8 Core**

VI	260	121	2

1.	How	easy	or	difficult	was	this	test?
----	-----	------	----	-----------	-----	------	-------

- Extremely difficult
- Quite difficult
- Somewhat difficult
- Somewhat easy
- Quite easy
- © Extremely easy

#### 2. How much effort did you apply to succeed on this test?

- No effort at all
- Very little effort
- © Some effort
- Quite a bit of effort
- A lot of effort

VH240387

#### **3.** Are you Hispanic or Latino? Select **one or more** answer choices.

- No, I am not Hispanic or Latino.
- (B) Yes, I am Mexican, Mexican American, or Chicano.
- © Yes, I am Puerto Rican or Puerto Rican American.
- Tes, I am Cuban or Cuban American.
- © Yes, I am from some other Hispanic or Latino background.

4.	Which of the follo	wing best describ	es you? Select <b>one o</b>	more answer choices.
----	--------------------	-------------------	-----------------------------	----------------------

- White
- ® Black or African American
- Asian
- © Native Hawaiian or other Pacific Islander

- **5.** About how many books are there in your home?
  - **◎** Few (0–10)
  - ® Enough to fill one shelf (11–25)
  - © Enough to fill one bookcase (26–100)
  - © Enough to fill several bookcases (more than 100)

**6.** Do you have any of the following in your home? Select **one** answer choice on each row.

	Yes	No	
a. Access to the Internet	(A)	®	VH271105
b. Your own bedroom	(A)	®	VH336762
c. A desktop or laptop computer (including Chromebooks) that you can use	<b>®</b>	®	VH591976
d. A tablet (for example, Surface Pro, iPad, Kindle Fire) that you can use	<b>®</b>	®	VH271110
e. A smartphone (for example, iPhone, Samsung Galaxy, HTC One) that you can use	<b>®</b>	<b>®</b>	VH271112

VH354591

- 7. How often do you use the Internet for homework at home?
  - Never
  - About once or twice a month
  - About once or twice a week
  - Almost every day
  - © Every day

- **8.** How many days were you absent from school in the last month?
  - None
  - ® 1 or 2 days
  - © 3 or 4 days
  - © 5 to 10 days
  - © More than 10 days

1/	H2	40	190

9.	How often	do you	talk abo	it things	you hav	e studied	in schoo	l with	someon	ie in
	your famil	y?								

- Never or hardly ever
- Once every few weeks
- About once a week
- Two or three times a week
- © Every day

#### 10. How far in school did your mother go?

- She did not finish high school.
- She graduated from high school.
- © She had some education after high school.
- She graduated from college.
- © I don't know.

VH240193

### 11. How far in school did your father go?

- A He did not finish high school.
- He graduated from high school.
- He graduated from college.
- © I don't know.

17	LI 2	2	67	7

### **12.** Does your mother work?

- A Yes
- ® No
- © I don't know.

VH336779

### **13.** Does your father work?

- A Yes
- ® No
- © I don't know.

**14.** Do any of the following people live in your home? Select **one** answer choice on each row.

	Yes	No	
a. Mother	(A)	®	VH271145
b. Stepmother	(A)	®	VH271146
c. Foster mother or other female legal guardian	<b>(A)</b>	®	VH271147
d. Father	(A)	®	VH271148
e. Stepfather	(A)	<b>®</b>	VH271149
f. Foster father or other male legal guardian	(A)	®	VH271150

VH591969

- **15.** In this school year, how often did you use a **laptop or desktop computer** (including Chromebooks) during your classes at school?
  - Never
  - In some classes
  - In about half of the classes
  - In more than half of the classes
  - © In all or almost all classes

- **16.** In this school year, how often did you use a **tablet** (for example, Surface Pro, iPad, Kindle Fire) during your classes at school?
  - Never
  - In some classes
  - O In about half of the classes
  - In more than half of the classes
  - © In all or almost all classes

**17.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me	
a.	I finish whatever I begin.	<b>(A)</b>	B	0	0	Œ	VH733142
b.	I try very hard even after making mistakes.	<b>(A)</b>	B	0	0	Œ	VH733143
c.	I keep working hard even when I feel like quitting.	<b>(A)</b>	®	0	0	Œ	VH733145
d.	I keep trying to improve myself, even when it takes a long time to get there.	<b>(A)</b>	®	0	0	Œ	VH733144

VH733149

**18.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me	
a.	I like complex problems more than easy problems.	(A)	®	0	0	©.	VH733150
b.	I like activities that challenge my thinking abilities.	(9)	®	0	0	©.	VH733151
c.	I enjoy situations where I will have to think about something.	0	<b>®</b>	0	0	©.	VH733155
d.	I enjoy thinking about new solutions to problems.	<b>(A)</b>	ß	©	0	©.	VH733154

**19.** In this school year, how often have you done each of the following? Select **one** answer choice on each row.

		Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a.	I started working on assignments right away rather than waiting until the last minute.	(4)	®	0	Φ	©.	VH271370
b.	I paid attention and resisted distractions.	<b>(A)</b>	B	0	0	Ē	VH271372
c.	I stayed on task without reminders from my teacher.	(A)	®	0	0	©	VH271374
d.	I paid attention in class even when I was not interested.	<b>(A)</b>	®	0	0	©	VH271375

**20.** In this school year, how often have you felt any of the following ways about your school? Select **one** answer choice on each row.

VH271934

	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a. I felt awkward and of place at school.	out 💮	®	0	0	Ē	VH271942
b. I felt happy at schoo	1.	®	©	0	(Ē)	VH271944
c. I felt that I learned something that I car use in my daily life.		®	0	0	Œ	VH336903

- **21.** Are you taking an art course this school year (for example, drawing, painting, or studio art)?
  - A Yes
  - ® No

## **Appendix K-1j: Summary of Changes Pilot Grade 8 Core**

			201	9 Pilot Grade 8 Core Stud	lent				
Previous item				2019 item				D/A/ R/NC+	Rationale
6. Are you Hispanic or Latino? Select one or mo  No, I am not Hispanic or Latino.  Yes, I am Mexican, Mexican American, or  Yes, I am Puerto Rican or Puerto Rican A  Yes, I am Cuban or Cuban American.  Yes, I am from some other Hispanic or La	r Chicano. .merican.		VH2.40387	20. Are you Hispanic or Latino? Select one or I  No, I am not Hispanic or Latino.  Yes, I am Mexican, Mexican American,  Yes, I am Puerto Rican or Puerto Rican  Yes, I am Cuban or Cuban American.  Yes, I am from some other Hispanic or	or Chicano. American.	w.	VH24087	NC	N/A
(2017 Grade 8)				Issue: Race/Ethnicity					
7. Which of the following best describes you? Sele	ect one or more answer	choices.	VH240358	21. Which of the following best describes you?  White Black or African American Asian American Indian or Alaska Native Native Hawaiian or other Pacific Island		nswer choices.	VH240388	NC	N/A
(2017 Grade 8)				Issue: Race/Ethnicity					
8. About how many books are there in your hom  © Few (0-10)  © Enough to fill one shelf (11-25)  © Enough to fill one bookcase (26-100)  © Enough to fill several bookcases (more than			VH240186	<ol> <li>About how many books are there in your hor</li> <li>Few (0-10)</li> <li>Enough to fill one shelf (11-25)</li> <li>Enough to fill one bookcase (26-100)</li> <li>Enough to fill several bookcases (more the</li> </ol>			VH240186	NC	N/A
(2017 Grade 8)				Issue: Socioeconomic Status					
9. Do you have any of the following in your hom	Yes	noice on each row.	VH271104.	2. Do you have any of the following in your hon		_	VH880711	R	Sub-items b
a. Access to the Internet	1es	(B)	VH271105	a. Access to the Internet	Yes	No	VH271105		
b. Clothes dryer just for your family	<b>®</b>	•	VH336756	b. Your own bedroom	Ø	(B)	VH271103 VH336762		dropped to
c. Dishwasher	•	(1)	VH336759	c. Your own desktop or laptop computer	<b>®</b>	(1)	VH853088		keep student
d. Your own bedroom e. A desktop or laptop computer (including	<b>®</b>	(8)	VH336762	(including Chromebooks) d. Your own tablet (for example, Surface Pro,					burden low,
Chromebooks) that you can use	<b>(3)</b>	(B)	VH591976	iPad, or Kindle Fire)	0	•	VH853090		and sub-items
f. A tablet (for example, Surface Pro, iPad, Kindle Fire) that you can use	<b>(</b>	•	VH271110	e. Your own smartphone (for example, iPhone, Samsung Galaxy, or HTC One)	0	•	VH853089		e, f, and g
g. A smartphone (for example, iPhone, Samsung Galaxy, HTC One) that you can use	Φ	(5)	VH271112						were revised to examine performance of alternative
(2017 Grade 8)				Issue: Socioeconomic Status					item wording

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

A How often do you use the Internet for homework at home?  Never About once or twice a month About once or twice a week Almost every day Every day  Issu  2017 Grade 8)  Issu  I. How many days were you absent from school in the last month? None I or 2 days J or 4 days More than 10 days More than 10 days  Issu  2017 Grade 8)  Issu  2017 Grade 8)	How often do you use the Internet for homework at home?  Description Never  Description About once or twice a month  Description About once or twice a week  Description Almost every day  Description Every day  Sue: Technology Use  VICABINO  None  Description 1 or 2 days  Description 3 or 4 days  Description 5 to 10 days  Description More than 10 days  Sue: School Climate	NC NC	N/A N/A
A How often do you use the Internet for homework at home?  Never About once or twice a month About once or twice a week Almost every day Every day  Issu  2017 Grade 8)  Issu  1. How many days were you absent from school in the last month? None 1 or 2 days 3 or 4 days 5 to 10 days More than 10 days  Issu  2017 Grade 8)  Issu  2017 Grade 8)  Issu  2017 Grade 8)	About once or twice a month About once or twice a week Almost every day Every day  Sue: Technology Use  How many days were you absent from school in the last month? None 1 or 2 days 3 or 4 days 5 to 10 days More than 10 days  More than 10 days  Sue: School Climate	NC	N/A
About once or twice a month About once or twice a week Almost every day Every day  2017 Grade 8)  Issu  1. How many days were you absent from school in the last month? None 1 or 2 days 3 or 4 days 5 to 10 days More than 10 days  2017 Grade 8)  Issu  2017 Grade 8)  Leave the school with someone in your family?	About once or twice a month About once or twice a week Almost every day Every day  Sue: Technology Use  How many days were you absent from school in the last month? None 1 or 2 days 3 or 4 days 5 to 10 days More than 10 days  More than 10 days  Sue: School Climate	NC	N/A
About once or twice a month About once or twice a week Almost every day Every day  2017 Grade 8)  Issu  1. How many days were you absent from school in the last month?  None 1 or 2 days 3 or 4 days 5 to 10 days More than 10 days  Issu  2017 Grade 8)  Lizability  2017 Grade 8)  Issu  2017 Grade 8)  Issu  2017 Grade 8)	About once or twice a week Almost every day Every day  Sue: Technology Use  How many days were you absent from school in the last month?  None 1 or 2 days 3 or 4 days 5 to 10 days More than 10 days  More than 10 days  Sue: School Climate	NC	N/A
About once or twice a week  Almost every day  Every day  2017 Grade 8)  Issu  1. How many days were you absent from school in the last month?  None  1 or 2 days  3 or 4 days  5 to 10 days  More than 10 days  Issu  2017 Grade 8)  Leave the school with someone in your family?	Almost every day  Every day  Sue: Technology Use  How many days were you absent from school in the last month?  None  1 or 2 days  3 or 4 days  5 to 10 days  More than 10 days  Sue: School Climate	NC	N/A
Almost every day  Every day  2017 Grade 8)  Issue  1. How many days were you absent from school in the last month?  None  1 or 2 days  3 or 4 days  5 to 10 days  More than 10 days  Issue  2017 Grade 8)	Every day  Sue: Technology Use  How many days were you absent from school in the last month?  None  1 or 2 days  3 or 4 days  5 to 10 days  More than 10 days  Sue: School Climate	NC	N/A
Use Every day  2017 Grade 8)  I. How many days were you absent from school in the last month?  None  1 or 2 days  3 or 4 days  5 to 10 days  More than 10 days  Issue  2017 Grade 8)  Let wo often do you talk about things you have studied in school with someone in your family?	How many days were you absent from school in the last month?  None  1 or 2 days  3 or 4 days  5 to 10 days  More than 10 days  Sue: School Climate	NC	N/A
2017 Grade 8)  1. How many days were you absent from school in the last month?  ① None ① 1 or 2 days ② 3 or 4 days ② 5 to 10 days ② More than 10 days ② ISSU  2017 Grade 8)	How many days were you absent from school in the last month?  None  1 or 2 days  3 or 4 days  5 to 10 days  More than 10 days  Sue: School Climate	NC	N/A
1. How many days were you absent from school in the last month?  None 1 or 2 days 3 or 4 days 5 to 10 days More than 10 days  Issu  2017 Grade 8)	How many days were you absent from school in the last month?  D None  D 1 or 2 days  D 3 or 4 days  D 5 to 10 days  D More than 10 days  Sue: School Climate	NC	N/A
1. How many days were you absent from school in the last month?  None  1 or 2 days  3 or 4 days  5 to 10 days  More than 10 days  Issu  2017 Grade 8)	D None D 1 or 2 days D 3 or 4 days D 5 to 10 days D More than 10 days Sue: School Climate		
None  1 or 2 days  3 or 4 days  5 to 10 days  More than 10 days  Issu  2017 Grade 8)	D 1 or 2 days D 3 or 4 days D 5 to 10 days D More than 10 days  sue: School Climate		
© 1 or 2 days © 3 or 4 days © 5 to 10 days © More than 10 days  Issu  2017 Grade 8)  2. How often do you talk about things you have studied in school with someone in your family?	© 3 or 4 days  D 5 to 10 days  D More than 10 days  Sue: School Climate		
© 3 or 4 days © 5 to 10 days © More than 10 days  ISSU  2017 Grade 8)  2. How often do you talk about things you have studied in school with someone in your family?	5 to 10 days  More than 10 days  Sue: School Climate		
© 5 to 10 days  © More than 10 days  ISSU  2017 Grade 8)  VIIZADISO  VIIZADISO  5. your family?	More than 10 days  Sue: School Climate		
More than 10 days    Issue   2017 Grade 8   2017 Gr	sue: School Climate		
2017 Grade 8)  2. How often do you talk about things you have studied in school with someone in your family?  5.			
2. How often do you talk about things you have studied in school with someone in your family?	VICERIS9		
2. How often do you talk about things you have studied in school with someone in your family?  5.	VH240189		
your family?		NC	N/A
**************************************	How often do you talk about things you have studied in school with someone in your family?		,
	Never or hardly ever		
	③ Once every few weeks		
	About once a week		
Thousand a week	Two or three times a week		
Who of three times a week	© Every day		
less (	sue: Socioeconomic Status		
Eoir Grade of			
13. How far in school did your mother go?  6. H	VIEZBIUZ How far in school did your mother go?	NC	N/A
	D She did not finish high school.		
Chample and from his bank and	D She graduated from high school.		
C She had some adjustion after high school	에 마음이 귀하면 하다 않는데, 이렇게 다른 아이들은 사람들이 있다.		
She graduated from college.	She had some education after high school.		
© I don't know.	D She graduated from college.  D I don't know.		

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

			201	9 Pilot Grade 8 Core Stude	ent				
Previous item				2019 item		D/A/ R/NC+	Rationale		
14. How far in school did your father go?			VH240193	7. How far in school did your father go?			VH240193	NC	N/A
He did not finish high school.				He did not finish high school.					
He graduated from high school.				He graduated from high school.					
He had some education after high school.				He had some education after high school.					
He graduated from college.				<ul> <li>He graduated from college.</li> <li>I don't know.</li> </ul>					
© I don't know.				© I don't know.					
(2017 Grade 8)				Issue: Socioeconomic Status					
			VH336776	276/0.1			VH336776	NC	N/A
15. Does your mother work?	5. Does your mother work?								, .
Yes				Yes					
® No				® No					
◎ I don't know.				© I don't know.					
(2017 Grade 8)									
			VH336779	Issue: Socioeconomic Status			VH336779	1	
16. Does your father work?				9. Does your father work?				NC	N/A
® No				® No					
© I don't know.			<b>4</b> 110						
○ I don't know.				© I don't know.					
				© I don't know.  Issue: Socioeconomic Status					
© I don't know.  (2017 Grade 8)  17. Do any of the following people live in your hrow.	nome? Select one answe	er choice on each	VH271144	and the state of t	ome? Select one answ	ver choice on each	VH271144	NC	N/A
(2017 Grade 8)  17. Do any of the following people live in your h	nome? Select one answer	er choice on each	VH271144	Issue: Socioeconomic Status  10. Do any of the following people live in your h			VH271144	NC	N/A
(2017 Grade 8)  17. Do any of the following people live in your h			VH271144 VH271145	Issue: Socioeconomic Status  10. Do any of the following people live in your h	ome? Select one answ Yes	ver choice on each  No	VH271144 VH271145	NC	N/A
(2017 Grade 8)  17. Do any of the following people live in your harow.  a. Mother b. Stepmother	Yes	No		Issue: Socioeconomic Status  10. Do any of the following people live in your h row.  a. Mother b. Stepmother	Yes	No		NC	N/A
(2017 Grade 8)  17. Do any of the following people live in your h row.	Yes ®	No	VH271145	Issue: Socioeconomic Status  10. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal	Yes ®	No	VH27[145	NC	N/A
(2017 Grade 8)  17. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father	Yes 🗆	No (5)	VH271145 VH271146	Issue: Socioeconomic Status  10. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal guardian	Yes  ①  ①	No	VH271145 VH271146	NC	N/A
(2017 Grade 8)  17. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father c. Stepfather	Yes	No	VH271145 VH271146 VH271147 VH271148 VH271148	Issue: Socioeconomic Status  10. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal	Yes 🚳	No	VH27[145 VH271146 VH271147	NC	N/A
(2017 Grade 8)  17. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father	Yes  D  D	No  D  D	VH271145 VH271146 VH271147 VH271148	Issue: Socioeconomic Status  10. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father	Yes  ©  ©  ©	No	VH27[145 VH271146 VH271147 VH271148	NC	N/A
(2017 Grade 8)  17. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father e. Stepfather	Yes	No	VH271145 VH271146 VH271147 VH271148 VH271148	Issue: Socioeconomic Status  10. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father e. Stepfather	Yes	No	VEZ71545 VEZ71546 VEZ71547 VEZ71547 VEZ71548 VEZ71549 VEZ71540	NC	N/A
(2017 Grade 8)  17. Do any of the following people live in your harow.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father e. Stepfather f. Foster father or other male legal guardian  (2017 Grade 8)	Yes	No	VH271145 VH271146 VH271147 VH271148 VH271148	Issue: Socioeconomic Status  10. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father e. Stepfather f. Foster father or other male legal guardian	Yes	No	VH271145 VH271146 VH271147 VH271148 VH271149	NC NC	N/A
(2017 Grade 8)  17. Do any of the following people live in your harow.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father e. Stepfather f. Foster father or other male legal guardian  (2017 Grade 8)	Yes	No	VEE71145 VEE71146 VEE71147 VEE71148 VEE71149 VEE71149	Issue: Socioeconomic Status  10. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father e. Stepfather f. Foster father or other male legal guardian  Issue: Socioeconomic Status	Yes	No	VEZ71545 VEZ71546 VEZ71547 VEZ71547 VEZ71548 VEZ71549 VEZ71540		
(2017 Grade 8)  17. Do any of the following people live in your hardward.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father c. Stepfather f. Foster father or other male legal guardian  (2017 Grade 8)	Yes	No	VEE71145 VEE71146 VEE71147 VEE71148 VEE71149 VEE71149	Issue: Socioeconomic Status  10. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father e. Stepfather f. Foster father or other male legal guardian  Issue: Socioeconomic Status  11. In this school year, how often did you use a lapte Chromebooks) during your classes at school?	Yes	No	VEZ71545 VEZ71546 VEZ71547 VEZ71547 VEZ71548 VEZ71549 VEZ71540		
(2017 Grade 8)  17. Do any of the following people live in your harow.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father c. Stepfather f. Foster father or other male legal guardian  (2017 Grade 8)  18. In this school year, how often did you use a lap Chromebooks) during your classes at school?  © Never	Yes	No	VEE71145 VEE71146 VEE71147 VEE71148 VEE71149 VEE71149	Issue: Socioeconomic Status  10. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father e. Stepfather f. Foster father or other male legal guardian  Issue: Socioeconomic Status  11. In this school year, how often did you use a lapte Chromebooks) during your classes at school?  © Never	Yes	No	VEZ71545 VEZ71546 VEZ71547 VEZ71547 VEZ71548 VEZ71549 VEZ71540		
(2017 Grade 8)  17. Do any of the following people live in your hardward.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father e. Stepfather f. Foster father or other male legal guardian  (2017 Grade 8)  18. In this school year, how often did you use a lap Chromebooks) during your classes at school?  © Never © In some classes	Yes	No	VEE71145 VEE71146 VEE71147 VEE71148 VEE71149 VEE71149	Issue: Socioeconomic Status  10. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father e. Stepfather f. Foster father or other male legal guardian  Issue: Socioeconomic Status  11. In this school year, how often did you use a lapte Chromebooks) during your classes at school?  © Never  © In some classes	Yes	No	VEZ71545 VEZ71546 VEZ71547 VEZ71547 VEZ71548 VEZ71549 VEZ71540		
(2017 Grade 8)  17. Do any of the following people live in your harow.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father e. Stepfather f. Foster father or other male legal guardian  (2017 Grade 8)  18. In this school year, how often did you use a lap Chromebooks) during your classes at school?  © Never © In some classes © In about half of the classes	Yes	No	VEE71145 VEE71146 VEE71147 VEE71148 VEE71149 VEE71149	Issue: Socioeconomic Status  10. Do any of the following people live in your h row.  a. Mother b. Stepmother c. Foster mother or other female legal guardian d. Father e. Stepfather f. Foster father or other male legal guardian  Issue: Socioeconomic Status  11. In this school year, how often did you use a lapte Chromebooks) during your classes at school?  © Never © In some classes © In about half of the classes	Yes	No	VEZ71545 VEZ71546 VEZ71547 VEZ71547 VEZ71548 VEZ71549 VEZ71540		

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

revious item							2019 item						D/A/ R/NC+	Rationale	
19. In this school year, how often did you use a tablet (for example, Surface Pro, iPad, Kindle Fire) during your classes at school?  ① Never ① In some classes ② In about half of the classes ② In more than half of the classes ① In all or almost all classes					12. In this school year, how often did you use a tablet (for example, Surface Pro, iPad, Kindle Fire) during your classes at school?  ① Never  ③ In some classes  ① In about half of the classes  ① In more than half of the classes  ① In almost all classes					NC	N/A				
2017 Grade 8) 20. How much does each		ng statements	s describe a pe	rson like you	? Select	VH271337	Issue: Technology		ing statement	s describe you	? Select one a	nswer	VH733141	R	The stem of
one answer choice on	Not at all	A little bit	Somewhat	Quite a bit	Very much		choice on each row.	Not at all	A little bit	Somewhat		Very much			this item wa
a. I finish whatever I	like me	like me	like me	like me	like me	VH271338	a. I finish whatever I	like me	like me	like me	like me	like me	20.00		revised for
begin. b. I try very hard even	@	0	0	0	©	VH271339	begin. b. I try very hard even	<b>®</b>	<b>®</b>	0	Φ	•	VH733142		clarity.
after making mistakes.  c. I keep working hard even when I feel like quitting.	<b>®</b>	0	0	0	®	VH271842	after making mistakes. c. I keep working hard even when I feel like quitting.	9	® ®	0	Φ	© ©	VH733143 VH733145		
d. I keep trying to improve myself, even when it takes a long time to get there.	<b>®</b>	®	0	•	•	VH271345	d. I keep trying to improve myself, even when it takes a long time to get there.	<b>®</b>	•	0	•	•	VH783144		
2017 Grade 8) 21. In this school year, ho choice on each row.	w often have y Never or hardly ever	Less than half of the time	of the followin	ng? Select one  More than half of the time	All or almost all of the time	VH271367	Issue: Grit  14. In this school year, ho choice on each row.	w often have Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all the time		NC	N/A
I started working on assignments right away rather than waiting until the last minute.	0	•	0	0	•	VH271370	a. I started working on assignments right away rather than waiting until the last	(8)	•	0	Φ	Φ	VH271370		
<ul> <li>I paid attention and resisted distractions.</li> </ul>	@	•	0	•	•	VH271372	b. I paid attention and	<b>®</b>	(D)				VH271372		
c. I stayed on task without reminders from my teacher.	0	(8)	0	Φ	<b>©</b>	VH271374	resisted distractions. c. I stayed on task without reminders	(A)	(8)	0	0	(B)	VH2/13/2		
d. I paid attention in class even when I was not interested.	0	0	0	Φ	<b>©</b>	VH271375	d. I paid attention in class even when I was	<b>®</b>	0	0	0	<b>©</b>	VH271375		

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

						2019	Pilot Grade 8	Core S	tudent	t					
Previous item	Previous item						2019 item							D/A/ R/NC+	Rationale
22. How much does each one answer choice on	of the follows	ing statement	s describe a p	erson like you	i? Select	VH271749	<ol><li>How much does each choice on each row.</li></ol>	of the follow	ving statemen	ts describe yo	u? Select one	answer	VH733149	R	The stem of
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me			this item was revised for
I like complex problems more than easy problems.	@	®	0	0	•	VH271750	a. I like complex problems more than easy problems.	(A)	<b>®</b>	0	0	<b>©</b>	VH733150		clarity.
<ul> <li>I like activities that challenge my thinking abilities.</li> </ul>	<b>®</b>	®	0	0	<b>©</b>	VH271752	b. I like activities that challenge my thinking abilities.	<b>®</b>	0	0	0	<b>©</b>	VH733151		
c. I enjoy situations where I will have to think about something.	<b>®</b>	ⅎ	0	0	•	VH271753	c. I enjoy situations where I will have to think about	Φ	<b>®</b>	0	0	•	VH733155		
d. I enjoy thinking about new solutions to problems.	<b>®</b>	ூ	0	0	©	VH271756	d. I enjoy thinking about new solutions to problems.	<b>(a)</b>	<b>®</b>	0	0	©	VH733154		
	Never or hardly ever	Less than half of the	About half of the time	More than half of the time	All or almost all of the time	Ħ	school: Select one alls	Never or	Less than half of the	About half of the time	More than half of the	All or almost all o	f		items (d, e, and f) were
23. In this school year, how school? Select one ans		each row.	the following				16. In this school year, ho school? Select one ans			t the following	g ways about !	your		R	New sub- items (d, e,
	Never or hardly ever		About half of the time		almost all of the time			Never or hardly ever		About half of the time			f		and f) were added to
I felt awkward and out of place at school.	<b>(A)</b>	(8)	0	Φ	<b>©</b>	VH271942	<ol> <li>I felt awkward and out of place at school.</li> </ol>	0	0	0	0	®	VH271942		expand
b. I felt happy at school. c. I felt that I learned	(4)	(B)	0	Φ	<b>©</b>	VH271944	b. I felt happy at school. c. I felt that I learned	0	•	0	0	Θ	VH271944		measurement
something that I can use in my daily life.	<b>®</b>	(B)	0	Θ	0	VH336903	something that I can use in my daily life.	@	•	0	0	<b>®</b>	VH336903		of this
(2017 Grade 8)							<ul> <li>I worried about crime and violence at my school.</li> </ul>	@	•	0	0	<b>(</b>	VH271940		content.
							<ul> <li>e. I felt my teachers treated me fairly.</li> </ul>	0	•	0	0	•	VH853117		
							f. I felt safe on my way to or from school.	0	(1)	0	0	<b>©</b>	VH853118		
							Issue: School Clin	nate							
04 W. J. 770 1		4.7				VH254028	N/A							D	Due to the
24. Write the ZIP code of ye	our home add	ress in the bo	х.												time burden
															associated
															with
(2017 Grade 8)															completing
															this item and
															to keep
															student
															burden low,

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

2019	2019 Pilot Grade 8 Core Student								
Previous item	2019 item	D/A/ R/NC+	Rationale						
			this item was dropped.						
N/A	17. Are you taking a language course other than English this school year (for example, Spanish, French, or Chinese)?  ① Yes ① No  Issue: Educational Experiences	A	This item was added to assess student involvement in coursework on languages (other than English).						
2. Are you taking an art course now, or have you taken an art course this year?  The Yes  No	18. Are you taking an art course this school year (for example, drawing, painting, or studio art)?  ① Yes ③ No  Issue: Educational Experiences	A	This item was added to assess student involvement in art						
(2016 grade 8) N/A	19. Are you taking a music course this school year (for example, choir, band, or orchestra)?  ② Yes ③ No  Issue: Educational Experiences	A	coursework.  This item was added to assess student involvement in music coursework.						

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

## **Appendix K-1k: Pilot Grade 8 Core**

- 1. About how many books are there in your home?
  - ♠ Few (0–10)
  - ® Enough to fill one shelf (11–25)
  - © Enough to fill one bookcase (26–100)
  - © Enough to fill several bookcases (more than 100)

2. Do you have any of the following in your home? Select **one** answer choice on each row.

VH880711

	Yes	No	
a. Access to the Internet	(A)	®	VH271105
b. Your own bedroom	A	®	VH336762
c. Your own desktop or laptop computer (including Chromebooks)	(4)	®	VH853088
d. Your own tablet (for example, Surface Pro, iPad, or Kindle Fire)	<b>(A)</b>	®	VH853090
e. Your own smartphone (for example, iPhone, Samsung Galaxy, or HTC One)	<b>®</b>	®	VH853089

- 3. How often do you use the Internet for homework at home?
  - Never
  - About once or twice a month
  - About once or twice a week
  - Almost every day
  - © Every day

			VH240190
4.	Но	w many days were you absent from school in the last month?	
	<b>(A)</b>	None	
	®	1 or 2 days	
	0	3 or 4 days	
	<b>(</b>	5 to 10 days	
	Œ	More than 10 days	
			VH240189
5.		w often do you talk about things you have studied in school with someone in ur family?	
	<b>(A)</b>	Never or hardly ever	
	$^{ ext{                                  $	Once every few weeks	
	0	About once a week	
	<b>(</b>	Two or three times a week	
	Œ	Every day	
			VH240192
6.	Но	w far in school did <b>your mother</b> go?	
	<b>(A)</b>	She did not finish high school.	
	®	She graduated from high school.	
	0	She had some education after high school.	
	0	She graduated from college.	
	(E)	I don't know.	

7.	Но	ow far in school did <b>your father</b> go?	
	<b>(A)</b>	He did not finish high school.	
	$^{ ext{ B}}$	He graduated from high school.	
	0	He had some education after high school.	
	<b>(</b>	He graduated from college.	
	(E)	I don't know.	
			VH336776
8.	Do	es your mother work?	
	<b>(A)</b>	Yes	
	$^{\odot}$	No	
	0	I don't know.	

- 9. Does your father work?
  - A Yes
  - ® No
  - © I don't know.

**10.** Do any of the following people live in your home? Select **one** answer choice on each row.

	Yes	No	
a. Mother	(A)	®	VH271145
b. Stepmother	<b>(A)</b>	®	VH271146
c. Foster mother or other female legal guardian	<b>(A)</b>	®	VH271147
d. Father	<b>(A)</b>	®	VH271148
e. Stepfather	<b>(A)</b>	®	VH271149
f. Foster father or other male legal guardian	<b>(A)</b>	®	VH271150

VH591969

- **11.** In this school year, how often did you use a **laptop or desktop computer** (including Chromebooks) during your classes at school?
  - Never
  - ® In some classes
  - In about half of the classes
  - In more than half of the classes
  - In all or almost all classes

- **12.** In this school year, how often did you use a **tablet** (for example, Surface Pro, iPad, Kindle Fire) during your classes at school?
  - Never
  - In some classes
  - O In about half of the classes
  - In more than half of the classes
  - © In all or almost all classes

**13.** How much does each of the following statements describe you? Select **one** answer choice on each row.

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me	
a. I finish whatever I begin.	<b>(A)</b>	®	0	0	Œ	VH733142
b. I try very hard even after making mistakes.	<b>(A)</b>	B	0	0	Œ	VH733143
c. I keep working hard even when I feel like quitting.	<b>(A)</b>	®	0	0	Œ	VH733145
d. I keep trying to improve myself, even when it takes a long time to get there.	<b>(</b>	®	0	0	Œ	VH733144

VH271367

**14.** In this school year, how often have you done each of the following? Select **one** answer choice on each row.

		Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a.	I started working on assignments right away rather than waiting until the last minute.	(4)	<b>®</b>	0	0	©.	VH271370
b.	I paid attention and resisted distractions.	<b>(A)</b>	B	0	0	Œ	VH271372
c.	I stayed on task without reminders from my teacher.	(A)	®	0	0	Œ	VH271374
d.	I paid attention in class even when I was not interested.	<b>(A)</b>	®	0	0	Œ	VH271375

**15.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me	
a.	I like complex problems more than easy problems.	<b>®</b>	®	0	0	Œ	VH733150
b.	I like activities that challenge my thinking abilities.	<b>(A)</b>	®	0	0	Œ	VH733151
c.	I enjoy situations where I will have to think about something.	<b>®</b>	®	0	Φ	Œ	VH733155
d.	I enjoy thinking about new solutions to problems.	<b>(A)</b>	(8)	0	0	Œ	VH733154

**16.** In this school year, how often have you felt any of the following ways about your school? Select **one** answer choice on each row.

		Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a.	I felt awkward and out of place at school.	(A)	B	0	0	Œ	VH271942
b.	I felt happy at school.	A	®	0	0	Œ	VH271944
c.	I felt that I learned something that I can use in my daily life.	(9)	®	0	0	Œ	VH336903
d.	I worried about crime and violence at my school.	(A)	®	0	0	Œ	VH271940
e.	I felt my teachers treated me fairly.	(A)	B	0	0	Œ	VH853117
f.	I felt safe on my way to or from school.	(A)	B	0	0	Œ	VH853118

VH852895

<b>17.</b>	7. Are you taking a language course other than English this scho	ool year	(for example
	Spanish, French, or Chinese)?		

- A Yes
- ® No

- **18.** Are you taking an art course this school year (for example, drawing, painting, or studio art)?
  - A Yes
  - ® No

V	HS	50	100	١

19.	are you taking a music course this school year (for example, choir, band, or
	rchestra)?

- A Yes
- No

- 20. Are you Hispanic or Latino? Select one or more answer choices.
  - No, I am not Hispanic or Latino.
  - (B) Yes, I am Mexican, Mexican American, or Chicano.
  - © Yes, I am Puerto Rican or Puerto Rican American.
  - Yes, I am Cuban or Cuban American.
  - © Yes, I am from some other Hispanic or Latino background.

- 21. Which of the following best describes you? Select one or more answer choices.
  - White
  - Black or African American
  - © Asian

  - © Native Hawaiian or other Pacific Islander

# Appendix K-11: Spiral Map Grade 8 Core

Accnum	Grade	Grade 8 OMB PDF Sequence Number	Number of Grade 8 booklets item appears in	Grade 8 booklets item appears in
VH240186	4, 8, 12	01_00	3	1, 2, 3
VH880711	4, 8, 12	02 00	2	1, 2
VH271105	4, 8, 12	02 01	2	1, 2
VH336762	4, 8, 12	02_02	2	1, 2
VH853088	4, 8, 12	02_03	2	1, 2
VH853090	4, 8, 12	02_04	2	1, 2
VH853089	4, 8, 12	02 <u>_</u> 05	2	1, 2
VH354591	4, 8, 12	03_00	3	1, 2, 3
VH240190	4, 8, 12	04_00	1	3
VH240189	4, 8, 12	05_00	1	3
VH240192	8, 12	06_00	2	1, 2
VH240193	8, 12	07_00	2	1, 2
VH336776	8, 12	08_00	2	1, 2
VH336779	8, 12	09_00	2	1, 2
VH271144	4, 8, 12	10_00	2	1, 2
VH271145	4, 8, 12	10_01	2	1, 2
VH271146	4, 8, 12	10_02	2	1, 2
VH271147	4, 8, 12	10_03	2	1, 2
VH271148	4, 8, 12	10_04	2	1, 2
VH271149	4, 8, 12	10_05	2	1, 2
VH271150	4, 8, 12	10_06	2	1, 2
VH591969	4, 8, 12	11_00	1	3
VH271276	4, 8, 12	12_00	1	3
VH733141	4, 8, 12	13_00	2	1, 2
VH733142	4, 8, 12	13_01	2	1, 2
VH733143	4, 8, 12	13_02	2	1, 2
VH733145	4, 8, 12	13_03	2	1, 2
VH733144	4, 8, 12	13_04	2	1, 2

Accnum	Grade	Grade 8 OMB PDF Sequence Number	Number of Grade 8 booklets item appears in	Grade 8 booklets item appears in
VH271367	4, 8, 12	14_00	1	3
VH271370	4, 8, 12	14_01	1	3
VH271372	4, 8, 12		1	3
VH271374	4, 8, 12	14_03	1	3
VH271375	4, 8, 12	14_04	1	3
VH733149	4, 8, 12	15_00	1	3
VH733150	4, 8, 12	15_01	1	3
VH733151	4, 8, 12	15_02	1	3
VH733155	4, 8, 12	15_03	1	3
VH733154	4, 8, 12	15_04	1	3
VH271934	4, 8, 12	16_00	1	3
VH271942	4, 8, 12	16_01	1	3
VH271944	4, 8, 12	16_02	1	3
VH336903	4, 8, 12	16_03	1	3
VH271940	4, 8, 12	16_04	1	3
VH853117	4, 8, 12	16_05	1	3
VH853118	4, 8, 12	16_06	1	3
VH852895	8, 12	17_00	2	1, 2
VH852900	8, 12	18_00	2	1, 2
VH852901	8, 12	19_00	2	1, 2
VH240387	4, 8, 12	20_00	3	1, 2, 3
VH240388	4, 8, 12	21_00	3	1, 2, 3

### **Appendix K-1m: Summary of Changes Operational Grade 12 Core**

2019					
Previous item	2019 item		D/A/ R/NC+	Rationale	
5. Are you Hispanic or Latino? Select one or more answer choices.  Description No, I am not Hispanic or Latino.  Yes, I am Mexican, Mexican American, or Chicano.  Yes, I am Puerto Rican or Puerto Rican American.  Yes, I am Cuban or Cuban American.  Yes, I am from some other Hispanic or Latino background.	3. Are you Hispanic or Latino? Select one or more answer choices.  ① No, I am not Hispanic or Latino.  ① Yes, I am Mexican, Mexican American, or Chicano.  ② Yes, I am Puerto Rican or Puerto Rican American.  ② Yes, I am Cuban or Cuban American.  ① Yes, I am from some other Hispanic or Latino background.	VIE-20387	NC	N/A	
(2018 Grade 12)  6. Which of the following best describes you? Select one or more answer choices.  © White  © Black or African American  © Asian  © American Indian or Alaska Native  © Native Hawaiian or other Pacific Islander	4. Which of the following best describes you? Select one or more answer choices.  White Black or African American Asian American Indian or Alaska Native Native Hawaiian or other Pacific Islander	VHZ40388	NC	N/A	
(2018 Grade 12)  7. About how many books are there in your home?  ⑤ Few (0-10)  ⑤ Enough to fill one shelf (11-25)  ⑥ Enough to fill one bookcase (26-100)  ⑥ Enough to fill several bookcases (more than 100)	Issue: Race/Ethnicity  5. About how many books are there in your home?  © Few (0-10)  © Enough to fill one shelf (11-25)  © Enough to fill one bookcase (26-100)  © Enough to fill several bookcases (more than 100)	V11240186	NC	N/A	
(2018 Grade 12)	Issue: Socioeconomic Status				

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item				2019 item	2019 item					
8. Do you have any of the following in your home	? Select one answer ch	noice on each row.	VHZ71104	6. Do you have any of the following in your hom	R	Due to				
The second second	Yes	No			Yes	No			concerns	
a. Access to the Internet	0	0	VH2F1t06	a. Access to the Internet	<b>Ø</b>	(1)	VH271105		about	
b. Clothes dryer just for your family	<b>®</b>	0	VER36756	b. Your own bedroom	∅	(8)	VH336762			
c. Dishwasher d. Your own bedroom	0	Φ	VH336759 VH336763	c. A desktop or laptop computer (including Chromebooks) that you can use	<b>®</b>	(1)	VH591976		content	
e. A desktop or laptop computer (including Chromcbooks) that you can use	0	0	VHS/FIV76	d. A tablet (for example, Surface Pro, iPad, Kindle Fire) that you can use	•	•	VH271110		relevance an	
f. A tablet (for example, Surface Pro, iPad. Kindle Fire) that you can use	Ø	Ф	VARENTEER	e. A smartphone (for example, iPhone, Samsung Galaxy, HTC One) that you can use	<b>®</b>	<b>®</b>	VH27(112		to keep	
g. A smartphone (for example, iPhone, Samsung Galaxy, HTC One) that you can use	•	•	ÝH271112	use					student burden low,	
(2018 Grade 12)			VH354591	Issue: Socioeconomic Status			VH354591	NC	sub-items b and c were dropped.	
9. How often do you use the Internet for homew	ork at home?			7. How often do you use the Internet for homework	c at home?				,	
Never				Never						
About once or twice a month				About once or twice a month						
About once or twice a week				<ul> <li>About once or twice a week</li> </ul>						
Almost every day				Almost every day						
© Every day				© Every day						
(2018 Grade 12)				Issue: Technology Use						
10. How many days were you absent from schoo	l in the last month?		VH240190	8. How many days were you absent from school in	the last month?		VH240190	NC	N/A	
				None						
None										
1 or 2 days				® 1 or 2 days						
© 3 or 4 days				© 3 or 4 days						
© 5 to 10 days				5 to 10 days						
More than 10 days				More than 10 days						
(2018 Grade 12)				Issue: School Climate						
1===0 0.000 ==/			VH240189		.7 1.00		VH240189	NC	NI/A	
11. How often do you talk about things you hav your family?	e studied in school w	vith someone in		<ol><li>How often do you talk about things you have studyour family?</li></ol>	died in school with so	meone in		NC	N/A	
Never or hardly ever				Never or hardly ever						
Once every few weeks				Once every few weeks						
About once a week				About once a week						
				3,3,3,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0						
Two or three times a week				Two or three times a week						
© Every day				© Every day						
				Issue: Socioeconomic Status						

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

2019 Operational Grade 12 Core Student									
Previous item		2019 item		D/A/ R/NC+	Rationale				
	VH240192	Land of Care Care Care Control of Care Care Care Care Care Care Care Care	VH240192	NC	N/A				
12. How far in school did your mother go?		10. How far in school did your mother go?							
She did not finish high school.		She did not finish high school.							
She graduated from high school.		She graduated from high school.							
She had some education after high school.		She had some education after high school.							
She graduated from college.		She graduated from college.							
⊕ I don't know.		© I don't know.							
(2018 Grade 12)		Issue: Socioeconomic Status							
13. How far in school did your father go?	VH240193	11. How far in school did your father go?	VH240193	NC	N/A				
He did not finish high school.									
He did not finish righ school.      He graduated from high school.		He did not finish high school.							
He had some education after high school.		He graduated from high school.							
		© He had some education after high school.							
He graduated from college.		He graduated from college.							
© I don't know.		© I don't know.							
(2018 Grade 12)		Issue: Socioeconomic Status							
	VH336776	7. 2. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	VH336776	NC	N/A				
14. Does your mother work?		12. Does your mother work?							
® No		No							
© I don't know.		© I don't know.							
- I will tallow.									
(2018 Grade 12)		Issue: Socioeconomic Status							

#### 2019 Operational Grade 12 Core Student D/A/ **Previous item** 2019 item Rationale R/NC+ VH336878 D N/A Due to the 15. What does your mother do for work? Select the choice that most closely describes substantial what she does at work. time burden @ Accountant @ Farmer @ Religious worker associated @ Artist @ Firefighter @ Repair technician @ Grounds worker with @ Athlete Salesperson The Health aide @ Carpenter Scientist completing 1 Helper Cashier Secretary this item and @ Cleaner 1 Housekeeper @ Security guard to keep @ Janitor @ Clerk Server student @ College professor Social worker 2 Lawyer burden low, @ Construction worker D Librarian Software developer this item was @ Cook (3) Manager 3 Stocker dropped. @ Marketing Supervisor @ Customer service Day care worker (3) Mechanic Surgeon @ Dental hygienist Medical technician 3 Surveyor @ Dentist (3) Military Taxi driver @ Designer @ Miner Teacher 1 Doctor 1 Nurse 3 Therapist @ Education Office support 1 Transportation administrator Painter Truck driver @ Electrician @ Pharmacist Veterinarian @ Engineer @ Police @ Writer @ Executive @ Receptionist @ Other (Please specify): @ Factory worker (2018 Grade 12) N/A NC 16. Does your father work? 13. Does your father work? @ Yes **1** Yes ® No ® No O I don't know. O I don't know. Issue: Socioeconomic Status (2018 Grade 12)

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

evious item				2019 item	D/A/ R/NC+	Rationale			
17. What does your father do what he does at work.	for work? Select the choice	that most closely descr	v <sub>H36885</sub> libes	N/A				D	Due to the substantial
Accountant	Farmer	Religious worker							time burde
@ Artist	Firefighter	Repair technician							associated
Athlete	Grounds worker	Salesperson							with
Carpenter	Health aide	Scientist							
Cashier	Helper	Secretary							completing
© Cleaner	Housekeeper	Security guard							this item ar
© Clerk	Janitor	Server							to keep
© College professor	② Lawyer	Social worker							student
@ Construction worker	Librarian	Software develope	r						burden low
⊕ Cook	Manager	Stocker							this item w
Customer service	Marketing	Supervisor							
Day care worker	Mechanic	→ Surgeon							dropped.
Dental hygienist	Medical technician	Surveyor							
Dentist	Military	Taxi driver							
Designer	Miner	Teacher							
Doctor	Nurse	Therapist							
© Education	Office support	Transportation							
administrator	Painter	Truck driver							
@ Electrician	Pharmacist	Veterinarian							
Engineer		Writer							
Executive	Police     Receptionist	Writer     Other (Please spec							
Factory worker	· Receptionist	Other (Flease spec							
018 Grade 12)  Do any of the following peop	ole live in your home? Selec	t one answer choice on o	each YHZ7/144	14. Do any of the following people live in your h	ome? Select one answ	er choice on each	VH271144	NC	N/A
row.	Yes	s No		row.					
Mother	- Tes			a Mother	Yes	No	1/1271/15		
Stepmother	@			a. Mother b. Stepmother	<ul><li>Ø</li><li>Ø</li></ul>	®	VH271145 VH271146		
Foster mother or other female guardian	legal	(3)	VH271147	c. Foster mother or other female legal	0	•	VH271147		
Father	(3)			guardian d. Father	0	•	VH271148		
Stepfather	al marriage			e. Stepfather	0	®	VH271149		
Foster father or other male leg	al guardian 🗶	(3)	VH271150	f. Foster father or other male legal guardian	0	B	VH271150		1

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item 2019 item													D/A/ R/NC+	Rationale	
19. In this school year, he Chromebooks) during			or desktop co	omputer (inclu	ıding	VR591969	15. In this school year, how often did you use a laptop or desktop computer (including Chromebooks) during your classes at school?								N/A
Never     In some classes							Never								
In some classes      In about half of th	a alaman						In some classes								
In more than half							In about half of the								
In more than han     In all or almost al							In more than half of								
o in an or annost ar	Classes						In all or almost all or	classes							
(2018 Grade 12)	)						Issue: Technology	y Use							
20. In this school year, he Kindle Fire) during you Never  ① In some classes  ② In about half of th  ③ In more than half  ① In all or almost al	(for example,	, Surface Pro, i	Pad,	Kindle Fire) during you.  Never  In some classes  In about half of the  In more than half of	<ul> <li>⑤ In some classes</li> <li>⑥ In about half of the classes</li> <li>⑥ In more than half of the classes</li> <li>⑥ In all or almost all classes</li> </ul>										
2018 Grade 12		ng statements	describe a pe	erson like you?	Select	VH271337	<ol><li>How much does each choice on each row.</li></ol>	of the follow	ing statemen	ts describe yo	u? Select one	answer	VH733141	R	After examining
21. How much does each one answer choice on									A little bit	Somewhat	Quite a bit	Very much			
21. How much does each one answer choice on		A little bit like me	Somewhat like me	Quite a bit like me	Very much like me			Not at all like me	like me	like me	like me	like me			data from th
21. How much does each one answer choice on  a. I finish whatever I begin.	each row.					VH271338	a. I finish whatever I begin.			like me	like me	like me	VH733142		two versions
21. How much does each one answer choice on  a. I finish whatever I begin. b. I try very hard even after making mistakes.	Not at all like me	like me	like me	like me	like me	VH271338 VH271339	begin. b. I try very hard even	like me	like me		0.000 0.00	7.00.000	VH733142 VH733143		two versions of this item
21. How much does each one answer choice on  a. I finish whatever I begin. b. I try very hard even	Not at all like me	like me ®	like me	like me	like me		begin.	like me	like me	0	Φ	<b>©</b>			two versions

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous	item						2019 item							D/A/ R/NC+	Rationale
22. How much does each choice on each row.	of the follow	wing statemen	ts describe yo	ou? Select one	answer	VH753141									
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me										
a. I finish whatever I begin.	0	Φ	0	0	0	VH733142									
b. I try very hard even after making mistakes.	<b>®</b>	0	0	Φ	(0)	VH735142									
c. I keep working hard even when I feel like quitting.	Φ	0	0	Φ	0	VH733148									
d. I keep trying to improve myself, even when it takes a long time to get there.	0	9	0	Φ	60	VH/Attas									
.018 Grade 12)			i santa a			VIETINO					de la companya de la		VH271367		
<ol><li>In this school year, ho choice on each row.</li></ol>	w often have y	ou done each	of the followin	ng? Select one	answer	Harter	<ol><li>In this school year, how choice on each row.</li></ol>	w often have y	ou done each	of the followir	ng? Select <b>one</b>	answer		NC	N/A
	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			
a. I started working on assignments right away rather than waiting until the last minute.	<b>©</b>	Φ.	0	0	Φ	vieznad	a. I started working on assignments right away rather than waiting until the last	0	®	0	•	©	VH271370		
<ul> <li>b. I paid attention and resisted distractions.</li> </ul>	00	Ф	0	0	Ф	VH171372	minute. b. I paid attention and	Gar.					VH271372		
e. I stayed on task without reminders from my teacher.	00	GD	9	0	Ф	V1071174	resisted distractions. c. I stayed on task	0	(1)	0	0	0			
d. I paid attention in class even when I was	0	0	0	0	Φ	VHQ71375	without reminders from my teacher. d. I paid attention in	⊗	0	0	0	0	VH271374		
not interested.							class even when I was not interested.	0	1	0	0	0	VH271375		
2018 Grade 12)							Issue: Grit								
4. How much does each one answer choice on o	of the following	ng statements	describe a per	rson like you?	Select	VH271749	18. How much does each choice on each row.	of the follow	ving statemen	ts describe yo	u? Select one	answer	VH733149	R	After
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me			examining data from
. I like complex problems more than easy problems.	<b>®</b>	(1)	0	0	Θ	VH271750	a. I like complex problems more than easy problems.	<b>©</b>	(B)	©	©	0	VH733150		two version
. I like activities that challenge my thinking abilities.	<b>®</b>	(3)	0	0	θ	VH271752	b. I like activities that challenge my thinking abilities.	<b>®</b>	<b>®</b>	0	0	0	VH733151		of this iter that were
I enjoy situations where I will have to think about something.	<b>Ø</b>	(3)	Θ	Φ	<b>©</b>	VH271753	c. I enjoy situations where I will have to think about	<b>©</b>	(8)	©	0	0	VH733155		administer
. I enjoy thinking about	<b>®</b>	•	0	0	•	VH271756	something. d. I enjoy thinking about								one versio

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous	item											D/A/ R/NC+	Rationale
<ol><li>How much does each choice on each row.</li></ol>	of the follow	ving statemen	its describe yo	ou? Select one	answer	VII733149							
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me	1							
. I like complex problems more than easy problems.	.00	0	0	0	Ф	Y11733150							
<ol> <li>I like activities that challenge my thinking abilities.</li> </ol>	Φ	Φ	0	Φ.	Ф	VH733 (51							
. I enjoy situations where I will have to think about something.	Φ	•	0	Ф	Ф	VHZMMAS							
I enjoy thinking about new solutions to problems.	0	0	0	0	Ф	V10739154							
2018 Grade 12)			,		<del>2 -</del>								
26. In this school year, how school? Select one ans	w often have wer choice or	you felt any of n each row.	the following	ways about yo	ur	VH271934	ear, how often have you felt ne answer choice on each r	t any of the following	ways about y	our	VH271934	NC	N/A
	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			than of the me About half of the time	More than half of the time	All or almost all o	of		
a. I felt awkward and out of place at school.	<b>®</b>	•	0	Φ	Φ	VH271942	d out		Φ	Ф	VH271942		
o. I felt happy at school.	0	•	0	•	0	VH271944	ool. Ø	7	0	Θ	VH271944		
c. I felt that I learned something that I can use in my daily life.	•	<b>®</b>	0	Φ	•	VH336903	d can 🐼 @		0	Θ	VH336903		
2018 Grade 12)	ur which of th	ne following ha	ive you done?	ielect one answ	ver on	VH740697	Climate	wing have you done? S	elect one answ	ver on	VH740697	NC	N/A
each row.	ir, winch of th	ic following ha	ive you done:	screet one ansv	ver on		ool year, which of the follow	wing have you done: o	ciect one answ	ver on		INC	IN/A
			Yes	N	No			Yes	N	Vo			
a. Taken the SAT or ACT Exams	College Entra	ince	<b>®</b>		3	VH740702	r ACT College Entrance	@		D	VH740702		
b. Submitted the Free App Student Aid (FAFSA)	lication for F	ederal	<b>®</b>		<b>3</b>	VH740703	ee Application for Federal	<b>®</b>		D	VH740703		
c. Applied to a 2-year colle	ege		<b>®</b>		B	VH740704	rSA) ar college	<b>a</b>		D	VH740704		
d. Been accepted to a 2-year		11	<b>®</b>		<b>3</b>	VH740705	a 2-year college	<b>(a)</b>		B	VH740705		
e. Applied to a 4-year colle	0	T. U.	<b>®</b>	_	3	VH740706	ar college	0	_	D D	VH740706		
f. Been accepted to a 4-yes			0	(	B	VH740708	a 4-year college	0	_	D	VH740708		
g. Applied to a certificate at a school that provide training (such as electri mechanic, computer pro	s occupationa cian, beautici ogrammer, et	an, z.)	0		30	VH740709	ificate or diploma program orovides occupational electrician, beautician, ater programmer, etc.)	•		Ð	VH740709		
<ul> <li>Been accepted to a tech program</li> </ul>	nıcal training		<b>®</b>		D	VH740710	a technical training		1	8	VH740710		
i. Talked with a military	recruiter		<b>®</b>		®	VH740711		Φ		B	2		
j. Enlisted in the military			0	_	<b>3</b>	VH740712	litary recruiter	0	_	B	VH740711		
	iob		<b>®</b>		3	VH740713	ilitary -time job	0		D	VH740712		
<ul> <li>k. Applied for a full-time j</li> <li>l. Been interviewed for a f</li> </ul>						VH740714		<b>(A)</b>		B	VH740713		

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

2019	Operational Grade 12 Core Student		
Previous item	2019 item	D/A/ R/NC+	Rationale
28. Which of the following best describes your high school program?  © General  © Academic or college preparatory  © Vocational or technical  (2018 Grade 12)	23. Which of the following best describes your high school program?  © General  © Academic or college preparatory  © Vocational or technical  Issue: Post High School Preparation	NC	N/A
29. Write the ZIP code of your home address in the box.  [2018 Grade 12]	N/A	D	Due to the time burden associated with completing this item and to keep student burden low, this item was dropped.
<ul> <li>2. Are you taking an art course now, or have you taken an art course this year?</li> <li>Yes</li> <li>No</li> </ul>	21. Are you taking an art course this school year (for example, drawing, painting, or studio art)?  The second of	A	This item was adapted from the arts questionnaire to assess student participation in arts
(2016 Grade 8)	Issue: Educational Experiences		coursework.

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

## **Appendix K-1n: Operational Grade 12 Core**

VL	260	121	2

1. How easy or difficult was this to	est?
--------------------------------------	------

- Extremely difficult
- Quite difficult
- Somewhat difficult
- Somewhat easy
- Quite easy
- © Extremely easy

#### 2. How much effort did you apply to succeed on this test?

- No effort at all
- Very little effort
- © Some effort
- Quite a bit of effort
- A lot of effort

VH240387

#### 3. Are you Hispanic or Latino? Select one or more answer choices.

- No, I am not Hispanic or Latino.
- (B) Yes, I am Mexican, Mexican American, or Chicano.
- © Yes, I am Puerto Rican or Puerto Rican American.
- Tes, I am Cuban or Cuban American.
- © Yes, I am from some other Hispanic or Latino background.

4.	Which of the following	best describes	you? Select one	or more answer choices.
----	------------------------	----------------	-----------------	-------------------------

- White
- ® Black or African American
- Asian
- © Native Hawaiian or other Pacific Islander

- **5.** About how many books are there in your home?
  - **◎** Few (0–10)
  - ® Enough to fill one shelf (11–25)
  - © Enough to fill one bookcase (26–100)
  - © Enough to fill several bookcases (more than 100)

**6.** Do you have any of the following in your home? Select **one** answer choice on each row.

	Yes	No	
a. Access to the Internet	(A)	®	VH271105
b. Your own bedroom	(A)	®	VH336762
c. A desktop or laptop computer (including Chromebooks) that you can use	<b>®</b>	®	VH591976
d. A tablet (for example, Surface Pro, iPad, Kindle Fire) that you can use	<b>®</b>	®	VH271110
e. A smartphone (for example, iPhone, Samsung Galaxy, HTC One) that you can use	<b>®</b>	<b>®</b>	VH271112

VH354591

- 7. How often do you use the Internet for homework at home?
  - Never
  - About once or twice a month
  - About once or twice a week
  - Almost every day
  - © Every day

- **8.** How many days were you absent from school in the last month?
  - None
  - ® 1 or 2 days
  - © 3 or 4 days
  - © 5 to 10 days
  - © More than 10 days

3.71	TO	40	1	00

9.	How o	often do	o you	talk	about	things	you	have	studied	in	school	with	some	one in
	your fa	amily?												

- Never or hardly ever
- Once every few weeks
- About once a week
- Two or three times a week
- © Every day

#### 10. How far in school did your mother go?

- She did not finish high school.
- She graduated from high school.
- © She had some education after high school.
- She graduated from college.
- © I don't know.

VH240193

#### 11. How far in school did your father go?

- He did not finish high school.
- He graduated from high school.
- He had some education after high school.
- He graduated from college.
- © I don't know.

17	LI 2	2	67	7

#### **12.** Does your mother work?

- A Yes
- ® No
- © I don't know.

VH336779

### **13.** Does your father work?

- A Yes
- ® No
- © I don't know.

**14.** Do any of the following people live in your home? Select **one** answer choice on each row.

	Yes	No	
a. Mother	(A)	®	VH271145
b. Stepmother	(A)	®	VH271146
c. Foster mother or other female legal guardian	<b>(a)</b>	®	VH271147
d. Father	(A)	®	VH271148
e. Stepfather	(A)	®	VH271149
f. Foster father or other male legal guardian	(A)	®	VH271150

VH591969

- **15.** In this school year, how often did you use a **laptop or desktop computer** (including Chromebooks) during your classes at school?
  - Never
  - In some classes
  - In about half of the classes
  - In more than half of the classes
  - In all or almost all classes

- **16.** In this school year, how often did you use a **tablet** (for example, Surface Pro, iPad, Kindle Fire) during your classes at school?
  - Never
  - In some classes
  - In about half of the classes
  - In more than half of the classes
  - © In all or almost all classes

**17.** How much does each of the following statements describe you? Select **one** answer choice on each row.

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me	
a. I finish whatever I begin.	<b>(A)</b>	®	0	0	Œ	VH733142
b. I try very hard even after making mistakes.	<b>(A)</b>	B	0	0	Œ	VH733143
c. I keep working hard even when I feel like quitting.	<b>(A)</b>	®	0	0	Œ	VH733145
d. I keep trying to improve myself, even when it takes a long time to get there.	<b>(</b>	®	0	0	Œ	VH733144

VH733149

**18.** How much does each of the following statements describe you? Select **one** answer choice on each row.

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me	
a. I like complex problems more than easy problems.	<b>®</b>	®	0	0	©	VH733150
b. I like activities that challenge my thinking abilities.	<b>(A)</b>	®	0	0	©	VH733151
c. I enjoy situations where I will have to think about something.	<b>®</b>	®	0	0	©.	VH733155
d. I enjoy thinking about new solutions to problems.	<b>(A)</b>	®	0	0	©	VH733154

**19.** In this school year, how often have you done each of the following? Select **one** answer choice on each row.

		Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a a v	started working on assignments right way rather than waiting until the last minute.	(4)	<b>®</b>	0	Φ	©.	VH271370
b. I	paid attention and resisted distractions.	A	B	0	0	Ē	VH271372
V	stayed on task without reminders rom my teacher.	(A)	®	0	0	©	VH271374
c	paid attention in class even when I was not interested.	<b>®</b>	®	0	0	©.	VH271375

**20.** In this school year, how often have you felt any of the following ways about your school? Select **one** answer choice on each row.

VH271934

	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a. I felt awkward and out of place at school.	A	B	0	0	Ē	VH271942
b. I felt happy at school.	A	®	0	0	(Ē)	VH271944
c. I felt that I learned something that I can use in my daily life.	(4)	®	0	0	Œ	VH336903

- **21.** Are you taking an art course this school year (for example, drawing, painting, or studio art)?
  - A Yes
  - ® No

**22.** During this school year, which of the following have you done? Select **one** answer on each row.

	Yes	No	
a. Taken the SAT or ACT College Entrance Exams	0	®	VH740702
b. Submitted the Free Application for Federal Student Aid (FAFSA)	<b>(A)</b>	®	VH740703
c. Applied to a 2-year college	<b>(A)</b>	®	VH740704
d. Been accepted to a 2-year college	<b>(A)</b>	®	VH740705
e. Applied to a 4-year college	<b>(A)</b>	®	VH740706
f. Been accepted to a 4-year college	<b>(A)</b>	®	VH740708
g. Applied to a certificate or diploma program at a school that provides occupational training (such as electrician, beautician, mechanic, computer programmer, etc.)	0	®	VH740709
h. Been accepted to a technical training program	<b>(A)</b>	®	VH740710
i. Talked with a military recruiter	<b>(A)</b>	®	VH740711
j. Enlisted in the military	<b>(A)</b>	®	VH740712
k. Applied for a full-time job	<b>(A)</b>	®	VH740713
1. Been interviewed for a full-time job	A	®	VH740714

- 23. Which of the following best describes your high school program?
  - General
  - Academic or college preparatory
  - © Vocational or technical

### Appendix K-10: Summary of Changes Operational Grade 4 Reading

2019 Ope	rational Grade 4 Reading Student			
Previous item	2019 item		D/A/ R/NC+	Rationale
I. How often does your teacher ask you to read a book you have chosen yourself!  Description Never About once or twice a year About once or twice a month Description About once or twice a week Description Year of Year	N/A		D	This item was dropped to keep student burden low and create opportunity for future development.
2. How often does your teacher ask you to discuss new or difficult vocabulary?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day  (2017 Grade 4)	17. How often does your teacher ask you to discuss new or difficult vocabulary?  ① Never  ① About once or twice a year  ① About once or twice a month  ① About once or twice a week  ① Every day or almost every day	VENTAGE	NC	N/A
3. For school this year, how often do you work in pairs or small groups to talk about something that you have read?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day  (2017 Grade 4)	Issue: Organization of Instruction  18. For school this year, how often do you work in pairs or small groups to talk about something that you have read?  Never  About once or twice a year About once or twice a month About once or twice a week Every day or almost every day  Issue: Organization of Instruction	VH3282	NC	N/A
4. For school this year, how often do you have a class discussion about something that the class has read?  © Never  D About once or twice a year  C About once or twice a month  D About once or twice a week  D Every day or almost every day  (2017 Grade 4)	19. For school this year, how often do you have a class discussion about something that the class has read?  ① Never ① About once or twice a year ② About once or twice a month ② About once or twice a week ① Every day or almost every day  Issue: Organization of Instruction	VIEWSTI	NC	N/A

2019 Ope	rational Grade 4 Reading Student			
Previous item	2019 item		D/A/ R/NC+	Rationale
5. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved reading?  Never  Once Two or three times Four or five times More than five times	<ul> <li>20. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved reading?</li> <li>Never</li> <li>Once</li> <li>Two or three times</li> <li>Four or five times</li> <li>More than five times</li> </ul>	VIES8774	NC	N/A
(2017 Grade 4)  Vicese72  6. On a typical school day, how much time do you use a computer or other digital device to do your English/language arts schoolwork and homework?  © Less than 30 minutes  © About 30 minutes  © About 1 hour  © About 2 hours  © About 3 hours  © 4 or more hours	21. On a typical school day, how much time do you use a computer or other digital device to do your English/language arts schoolwork?  Dess than 30 minutes About 30 minutes About 1 hour About 2 hours About 3 hours About 3 hours One Armonia Minutes About 3 hours One Armonia Minutes About 3 hours One Armonia Minutes One Armoni	VES98636	R	The word "homework" was removed.
(2017 Grade 4)  7. In this school year, how often do you borrow reading materials (such as books or magazines) from your school library or media center?  © Never  © About once or twice a year  © About once or twice a month  © About once or twice a week  © Every day or almost every day  (2017 Grade 4)	Issue: Resources for Learning and Instruction  22. In this school year, how often do you borrow reading materials (such as books or magazines) from your classroom library, school library, or media center?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day  Issue: Resources for Learning and Instruction	Y3866301	R	The phrase "classroom library" was added.

Previous item							2019 item							D/A/ R/NC+	Rationale
8. Do you think you wou answer choice on each		lo each of the	following whe	en reading? Se	lect one	VHIIIHO	23. Do you think you wou answer choice on each		do each of the	following who	en reading? Se	lect one	VH017050	NC	N/A
1	I definitely can't	I probably can't	Maybe	I probably can	I definitely can			1 definitely	I probably	Maybe	I probably	I definitely			
a. Figure out the meaning of a word you don't know by using other words in the text	•	•	9	0	Φ	V11250845	a. Figure out the meaning of a word you don't know by using other words in the text	0	<b>3</b>	0	Φ	Φ	V <del>1126084</del> 8		
b. Explain the meaning of something you have read	Φ	0	0	0	.0	VH280849	b. Explain the meaning of something you have read	0	0	0	0	0	VH260849		
. Figure out the main idea of a text	0	(3)	0	0	Φ	VH260851	c. Figure out the main idea of a text	•	•	0	0	0	VH260631		
d. Find text in a reading passage to help you answer a question on a test	Φ	0	Θ	©	Φ	V11260849	d. Find text in a reading passage to help you answer a question on a test	•	00	0	0	0	VPI260839		
e. Recognize when you don't understand something you are	<b>®</b>	0	0		0	V1(26086)	e. Recognize when you don't understand something you are	Φ	Φ	0	0	Φ	V#12/6/86/i		
reading						_	reading								
Recognize the difference between fact and opinion in a text	Φ	Φ	0	0	Φ	Vitzánna	f. Recognize the difference between fact and opinion in a text	ctors	<b>®</b>	0	0	Φ	VHIMIMA		
f. Recognize the difference between fact and opinion in a text	of the follow each row,	ing statements	s describe a po	rson like you	? Select	V(126886.)	f. Recognize the difference between fact and opinion in a text	ctors of the follow	ving statemen	ts describe yo	ou? Select one	answer	VHEA012	R	The phrase person like"
Recognize the difference between fact and opinion in a text  2017 Grade 4)  9. How much does each one answer choice on	of the follow			102			f. Recognize the difference between fact and opinion in a text  Issue: Student Fact 24. How much does each choice on each row.	ctors				answer		R	person like" was remove
f. Recognize the difference between fact and opinion in a text  2017 Grade 4)	of the follow each row,	ing statements	s describe a po	rson like you	? Select		f. Recognize the difference between fact and opinion in a text  Issue: Student Face 24. How much does each	of the follow	ving statemen	ts describe yo	ou? Select one	answer  Exactly lik		R	person like" was remove and two sub
Recognize the difference between fact and opinion in a text  2017 Grade 4)  9. How much does each one answer choice on a law to ther students to think I am good at reading.	of the follow each row, Not at all like me	ng statements  A little bit like me	s describe a po Somewhat like me	erson like you Quite a bit like me	Exactly like		f. Recognize the difference between fact and opinion in a text  Issue: Student Face  24. How much does each choice on each row.  a. I want other students to think I am good at reading. b. I want to show others that my English/ language arts schoolwork is easy for	of the follow  Not at all like me	ving statemen  A little bit like me	somewhat like me	Quite a bit like me	answer  Exactly like	e	R	person like" was remove
f. Recognize the difference between fact and opinion in a text  2017 Grade 4)  9. How much does each one answer choice on think I am good at reading. b. I want to show others that my English/language arts schoolwork is easy for	of the followiesch row,  Not at all like me	A little bit like me	s describe a pe Somewhat like me	Quite a bit like me	F Select  Exactly like me	V11260924	i. Recognize the difference between fact and opinion in a text  Issue: Student Fact 24. How much does each choice on each row.  a. I want other students to think I am good at reading. b. I want to show others that my English/language arts schoolwork is easy for me. c. I want to look smart in comparison to the other students in my English/language arts	of the follow  Not at all like me	ving statemen  A little bit like me	somewhat like me	Quite a bit like me	Exactly like me	e VHs44065	R	person like" was remove and two sub items were
Recognize the difference between fact and opinion in a text  2017 Grade 4)  9. How much does each one answer choice on the control of the con	of the follows each row,  Not at all like me	A little bit like me	s describe a po Somewhat like me	Quite a bit like me	Exactly like me	V112/092# V112/0929	i. Recognize the difference between fact and opinion in a text  Issue: Student Face 24. How much does each choice on each row.  a. I want other students to think I am good at reading. b. I want to show others that my English/language arts schoolwork is easy for me. c. I want to look smart in comparison to the other students in my English/language arts class. d. I want to get better English/language arts grades than most other	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH844065	R	person like" was remove and two sub items were
f. Recognize the difference between fact and opinion in a text  2017 Grade 4)  9. How much does each one answer choice on the control of the	of the followieach row.  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	V112/092# V112/0929	i. Recognize the difference between fact and opinion in a text  Issue: Student Fact 24. How much does each choice on each row.  a. I want other students to think I am good at reading. b. I want to show others that my English/language arts schoolwork is easy for me. c. I want to look smart in comparison to the other students in my English/language arts class. d. I want to get better English/language arts	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	P V28644065 V33644066 V33644068	R	person like" was remove and two sub items were

Previous item							2019 item							D/A/ R/NC+	Rationale
							25. How much does each choice on each row.	of the follow	ving statemen	ts describe yo	u? Select one	answer	VHSEAREL		
								Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			
							A. I want to learn as much as possible in my English/language arts class.	0	0	0	Ф	0	V1884006		
							b. I want to become a better reader this year.	0	0	0	Ф	Ф	V96844097		
							<ul> <li>c. I want to understand as much as I can in my English/language arts class.</li> </ul>	9	<b>®</b>	0	0	Φ	VH84409R		
							d. I want to master a lot of new English/ language arts skills in my class.	<b>®</b>	<b>®</b>	0	Φ	9	V11514100		
10. How much does each one answer choice on	of the followi	ng statements	s describe a pe	erson like you	? Select	AIRWIS	Issue: Student Fa	2000	ving statemen	ts describe yo	u? Select one	answer	VISSAIR	R	•
10. How much does each one answer choice on	Not at all	A little bit	Somewhat	Quite a bit	Exactly like	V1689032	26. How much does each	of the follow	A little bit	Somewhat	Quite a bit	Exactly like	VHS44168	R	The phrase " person like" was remove
one answer choice on  a. Reading is one of my	each row.					VH260271	26. How much does each choice on each row.  a. Reading is one of my	of the follow					V18844169 V18544169	R	person like"
one answer choice on	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me		a. Reading is one of my favorite activities. b. I like talking about books with other	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me		R	person like"
one answer choice on  a. Reading is one of my favorite activities. b. I like talking about books with other	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH260271	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH544169	R	person like"
a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH260271 VH260272	a. Reading is one of my favorite activities. b. I like talking about books with other people.	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VHS4016W VHS40170	R	person like"
a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH2x0271 VH2x0272 VH2x0275	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VHS4016W VHS44170 VHS640172	R	person like"
one answer choice on  a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. Lenjoy going to a bookstore or a library.  2017 Grade 4)  1. Besides doing homewo  Less than 30 minum	Sork, how much tes a day	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH2x0271 VH2x0272 VH2x0275	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library.  Issue: Student Fac.  27. Besides doing homewor	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VHS4016W VHS44170 VHS640172	R	person like"
a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. Lenjoy going to a bookstore or a library.  2017 Grade 4)  1. Besides doing homework.	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH260271 VH260272 VH260275 VH260277	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library.  Issue: Student Factor of the series of	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VHS4016W VHS44170 VHS640172		person like" was remove
a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library.  2017 Grade 4)  11. Besides doing homewo	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH260271 VH260272 VH260275 VH260277	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library.  Issue: Student Fac.  27. Besides doing homewor	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VHS4016W VHS44170 VHS640172		person like" was remove
a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. Lenjoy going to a bookstore or a library.  2017 Grade 4)  1. Besides doing homewo	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH260271 VH260272 VH260275 VH260277	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library.  Issue: Student Factor of the state of t	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VHS4016W VHS44170 VHS640172		person like" was remove

revious item							2019 item							D/A/ R/NC+	Rationale
How often do you recei English/language arts or				riend with		ViB32820	28. How often do you receiv English/language arts ou				friend with		VIE32820	NC	N/A
							Never								
About once or twice	e a year						About once or twice	a year							
About once or twice	a month						About once or twice	a month							
About once or twice	a week						About once or twice	a week							
Every day or almost	every day						Every day or almost	every day							
2017 Grade 4)							Issue: Resources f	for Lear	ning and	Instructi	on				
C 00 1 1 2 2 7 1 1 1		About once or twice a	About once or twice a	About once or twice a	Every day or almost	VHIMME	Issue: Resources f  29. How often do you typic one answer choice on e	cally do eacl		About once or twice a	About once or twice a	Every day or almost	VII269006	NC	N/A
	each row.	About once	About once	About once	Every day or	Vitimis.	29. How often do you typic one answer choice on e.	cally do eacl each row.	About once	About once	side of school	Every day or	VII269006	NC	N/A
How often do you typi one answer choice on one of the choice of the	each row.	About once or twice a	About once or twice a	About once or twice a	Every day or almost	VHDMM66	29. How often do you typic	cally do eacl each row.	About once or twice a	About once or twice a	About once or twice a	Every day or almost	VII269901	NC	N/A
How often do you typi one answer choice on a answer choice on a Talk about books (print or online) with	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day		a. Talk about books (print or online) with other people b. Go to my local library to borrow books (print)	cally do each each row, Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day		NC	N/A
a. Talk about books (print or online) b. Go to my local library to borrow books (print or online) c. Read blogs	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	VHDN007	a. Talk about books (print or online) with other people b. Go to my local library	cally do each each row. Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	V10260907	NC	N/A
a. Talk about books (print or online) with other people b. Go to my local library to borrow books (print or online)	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	VH280911	a. Talk about books (print or online) with other people b. Go to my local library to borrow books (print or online)	cally do each cow.  Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	VIII260907	NC	N/A

## **Appendix K-1p: Operational Grade 4 Reading**

			*******
			VH332853
<b>17.</b>	Но	w often does your teacher ask you to discuss new or difficult vocabulary?	
	<b>(A)</b>	Never	
	®	About once or twice a year	
	0	About once or twice a month	
	0	About once or twice a week	
	(E)	Every day or almost every day	

- **18.** For school this year, how often do you work in pairs or small groups to talk about something that you have read?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

			VH332871
19.		school this year, how often do you have a class discussion about something at the class has read?	
	<b>(A)</b>	Never	
	$^{\odot}$	About once or twice a year	
	0	About once or twice a month	
	<b>(</b>	About once or twice a week	
	(E)	Every day or almost every day	
			VH588774
20.	sen	school this year, how often have you been asked to write long answers (several stences or paragraphs) to questions on tests or assignments that involved ding?	
	<b>(A)</b>	Never	
	B	Once	
	0	Two or three times	
	<b>(</b>	Four or five times	
	(E)	More than five times	
			VH598636
21.		a typical school day, how much time do you use a computer or other digital vice to do your <b>English/language arts</b> schoolwork?	
	<b>(A)</b>	Less than 30 minutes	
	®	About 30 minutes	
	©	About 1 hour	
	<b>(</b>	About 2 hours	
	(E)	About 3 hours	
	Ð	4 or more hours	

- **22.** In this school year, how often do you borrow reading materials (such as books or magazines) from your classroom library, school library, or media center?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

**23.** Do you think you would be able to do each of the following when reading? Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Figure out the meaning of a word you don't know by using other words in the text	(4)	®	©	Φ	©	VH260848
b.	Explain the meaning of something you have read	<b>(A)</b>	®	0	0	©.	VH260849
c.	Figure out the main idea of a text	<b>(A)</b>	B	0	0	Œ	VH260851
d.	Find text in a reading passage to help you answer a question on a test	(4)	®	0	Φ	©	VH260859
e.	Recognize when you don't understand something you are reading	(4)	®	0	Φ	©	VH260861
f.	Recognize the difference between fact and opinion in a text	<b>(</b>	®	0	•	©	VH260863

**24.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I want other students to think I am good at reading.	<b>(A)</b>	®	0	0	©	VH844065
b.	I want to show others that my English/ language arts schoolwork is easy for me.	<b>(</b>	<b>®</b>	0	Φ	©.	VH844066
c.	I want to look smart in comparison to the other students in my English/language arts class.	<b>(</b>	<b>®</b>	0	0	©	VH844068
d.	I want to get better English/language arts grades than most other students in my class.	(4)	®	0	0	©	VH844070

**25.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
much	t to learn as as possible in nglish/language lass.	<b>(</b> A)	®	©	0	©.	VH844096
	t to become a reader this year.	A	B	0	0	Œ	VH844097
as mu	t to understand ich as I can in my sh/language arts	<b>®</b>	®	0	0	©.	VH844098
of nev	t to master a lot w English/ age arts skills in ass.	<b>(</b> A)	<b>®</b>	©	0	©	VH844100

**26.** How much does each of the following statements describe you? Select **one** answer choice on each row.

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a. Reading is one of my favorite activities.	A	®	0	0	Œ)	VH844169
b. I like talking about books with other people.	<b>(A)</b>	®	0	0	©.	VH844170
c. I think reading is important.	A	®	0	0	Œ	VH844172
d. I enjoy going to a bookstore or a library.	A	®	0	0	Œ	VH844171

VH598686

- 27. Besides doing homework, how much time do you spend reading outside of school?
  - Less than 30 minutes a day
  - About 30 minutes a day
  - About 1 hour a day
  - About 2 hours a day
  - © About 3 hours a day
  - 4 or more hours a day

- **28.** How often do you receive help from a tutor, family member, or friend with English/language arts **outside of school or after school**?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

**29.** How often do you typically do each of the following things **outside of school**? Select **one** answer choice on each row.

		Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a.	Talk about books (print or online) with other people	<b>(A)</b>	®	0	0	©.	VH260907
b.	Go to my local library to borrow books (print or online)	(A)	®	0	0	Œ	VH260911
c.	Read blogs	A	®	0	0	Œ	VH260913
d.	Use social media (for example, Facebook, Twitter, Instagram)	(A)	®	0	0	Œ	VH333261
e.	Help friends with reading homework	A	®	0	0	Œ	VH260917

# **Appendix K-1q: Summary of Changes Pilot Grade 4 Reading**

2019 F	Pilot Grade 4 Reading Student			
Previous item	2019 item		D/A/ R/NC+	Rationale
21. How often does your teacher ask you to read a book you have chosen yourself?  Never About once or twice a year About once or twice a month About once or twice a week Every day or almost every day  (2017 Grade 4)	N/A		D	This item was dropped to reduce student burden and create opportunity for future development.
22. How often does your teacher ask you to discuss new or difficult vocabulary?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day	1. How often does your teacher ask you to discuss new or difficult vocabulary?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day	VHD2853	NC	N/A
(2017 Grade 4)	Issue: Organization of Instruction			
23. For school this year, how often do you work in pairs or small groups to talk about something that you have read?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day	2. For school this year, how often do you work in pairs or small groups to talk about something that you have read?  Description Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day	VHISZNI	NC	N/A
(2017 Grade 4)	Issue: Organization of Instruction			
24. For school this year, how often do you have a class discussion about something that the class has read?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day  (2017 Grade 4)	<ul> <li>3. For school this year, how often do you have a class discussion about something that the class has read?</li> <li>Never</li> <li>About once or twice a year</li> <li>About once or twice a month</li> <li>About once or twice a week</li> <li>Every day or almost every day</li> </ul>	VHSDSTI	NC	N/A

2019	Pilot Grade 4 Reading Student		
Previous item	2019 item	D/A/ R/NC+	Rationale
25. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved reading?  Never  Once  Two or three times  Four or five times  More than five times  (2017 Grade 4)	5. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved reading?  Never  Once  Two or three times  Four or five times  More than five times	NC	N/A
26. On a typical school day, how much time do you use a computer or other digital device to do your English/language arts schoolwork and homework?  © Less than 30 minutes  © About 30 minutes  © About 1 hour  © About 2 hours  © About 3 hours  © 4 or more hours  (2017 Grade 4)		R	The word "homework" was removed.
27. In this school year, how often do you borrow reading materials (such as books or magazines) from your school library or media center?  Never  About once or twice a year  About once or twice a month  Every day or almost every day  (2017 Grade 4)		R	The phrase "classroom library" was added and "classroom library, school library, media center" was bolded.

revious item							2019 item							D/A/ R/NC+	Rationale
28. Do you think you wou answer choice on each		do each of the	following who	en reading? Se	lect one	VII337050	<ol> <li>Do you think you wou answer choice on each</li> </ol>		do each of the	following who	en reading? Se	lect one	VIRTINGO	R	A sub-item was added.
	I definitely can't	I probably can't	Maybe	I probably can	I definitely can			I definitely	I probably can't	Maybe	I probably	I definitely			was added.
Figure out the meaning of a word you don't know by using other words in the text	⊕	0	0	Ф	θ	¥71260848	Figure out the meaning of a word you don't know by using other words in the text	0	(5)	0	0	0	VED-60848		
Explain the meaning of something you have read	•	•	0	•	0	V11260849	b. Explain the meaning of something you have	@	<b>®</b>	Ø	0	Φ	VH260649		
Figure out the main idea of a text	<b>®</b>	Ф	0	0	Φ	VH280851	c. Figure out the main idea of a text	0	Φ.	0	0	Θ	VHZ80851		
Find text in a reading passage to help you answer a question on a test	0	Φ	0	0	0	V11260659	d. Find text in a reading passage to help you answer a question on a	Φ	<b>®</b>	0	0	Φ	VIII60859		
Recognize when you don't understand something you are reading	3	0	0	0	Φ	VHZ60861	e. Recognize when you don't understand something you are	•	0	Φ	0	θ	VH160861		
						-	reading								
Recognize the difference between fact and opinion in a text	Φ	Φ	0	Ф	Ð	VH260863	f. Recognize the difference between fact and opinion in a	0	<b>®</b>	0	0	Φ	VH260683		
Recognize the difference between fact and opinion in a	Φ	Φ	0	<b>©</b>	Ф	VH260863	difference between	Φ	© ©	0	0	0	VH260664 VH91(215		
Recognize the difference between fact and opinion in a rext	of the follow					V112696A3	difference between fact and opinion in a text g. Use evidence from a text to support your	• actors	•	0	0	Φ		R	The phrase "
Recognize the difference between fact and opinion in a rext	of the follow				3 Select	VIEZHANON	difference between fact and opinion in a text g. Use evidence from a text to support your answer  Issue: Student Fa  13. How much does each	• actors	•	0	0	Φ	VEHLL235	R	The phrase " person like" was remove
Recognize the difference between fact and opinion in a text  O17 Grade 4)  9. How much does each one answer choice on	of the follow each row.	ing statements	s describe a po	erson like you  Quite a bit	3 Select	VIEZHANON	difference between fact and opinion in a text  g. Use evidence from a text to support your answer  Issue: Student Fa  13. How much does each choice on each row.  a. I want other students to think I am good at	©  Actors  of the follow  Not at all		© ts describe yo	u' Select one Quite a bit	answer  Exactly like	VEHLL235	R	person like" was remove and two sub
Recognize the difference between fact and opinion in a text  O17 Grade 4)  9. How much does each one answer choice on  I want other students to think I am good at reading.	of the follow each row. Not at all like me	ing statements  A little bit like me	s describe a po Somewhat like me	erson like you Quite a bit like me	3 Select  Exactly like me	VIDINOS	difference between fact and opinion in a text g. Use evidence from a text to support your answer  Issue: Student Fa  13. How much does each choice on each row.  a. I want other students to think I am good at reading. b. I want to show others that my English/ language arts schoolwork is easy for	Octors of the follow  Not at all like me	ing statemen	ts describe yo	uì Select one  Quite a bit like me	answer  Exactly like me	V9841215	R	person like"
Recognize the difference between fact and opinion in a text  2017 Grade 4)  9. How much does each one answer choice on  I want other students to think I am good at reading.  I want to show others that my English/ language arts schoolwork is easy for	of the follow each row.  Not at all like me	A little bit like me	s describe a po Somewhat like me	Quite a bit like me	? Select  Exactly like me	V1038901	difference between fact and opinion in a text g. Use evidence from a text to support your answer  Issue: Student Fa  13. How much does each choice on each row.  a. I want other students to think I am good at reading. b. I want to show others that my English/language arrs schoolwork is easy for me.  c. I want to look smart in comparison to the other students in my English/language arrs	Octors of the follow Not at all like me	ing statement	© s describe yo Somewhat like me	u? Select one  Quite a bit like me	answer  Exactly like me	VER(1215) VSB53247 VFB53376a	R	person like" was remove and two sub items were
Recognize the difference between fact and opinion in a text  O17 Grade 4)  D. How much does each one answer choice on  I want other students to think I am good at reading.  I want to show others that my English/ language arts schoolwork is easy for me.  I want to look smart in comparison to the other students in my English/language arrs class.	of the follow each row.  Not at all like me	A little bit like me	s describe a possible somewhat like me	Quite a bit like me	Select  Exactly like me	VIESHOE VIESHOE VIESHOE VIESHOES	difference between fact and opinion in a text g. Use evidence from a text to support your answer  Issue: Student Fa  13. How much does each choice on each row.  a. I want other students to think I am good at reading. b. I want to show others that my English/ language arts schoolwork is easy for me.  c. I want to look smart in comparison to the other students in my English/language arts class. d. I want to get better English/language arts grades than most other	© Actors of the follow  Not at all like me	Ting statements A little bit like me	© state describe your somewhat like me  ©	ui Select one  Quite a bit like me	answer  Exactly like me	VERNI215  VERNI2267  VERNI2767  VERNI2765  VERNI2765	R	person like" was remove and two sub items were
Recognize the difference between fact and opinion in a text  O17 Grade 4)  9. How much does each one answer choice on  I want other students to think I am good at reading.  I want to show others that my English/ language arts schoolwork is easy for me.  I want to look smart in comparison to the other students in my English/language arts class.  I want to learn as much as possible in my English/language	of the follow each row.  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Select  Exactly like me	VIESenos VIESenos VIESenos	difference between fact and opinion in a text g. Use evidence from a text to support your answer  Issue: Student Fa  13. How much does each choice on each row.  a. I want other students to think I am good at reading. b. I want to show others that my English/language arts schoolwork is easy for me.  c. I want to look smart in comparison to the other students in my English/language arts class. d. I want to get better English/language arts	Octors of the follow Not at all like me	A little bit like me	©  Somewhat like me  ©	Quite a bit like me	answer  Exactly like me	VER1215  VSR03247  VH853764  VH853765	R	person like" was remove and two sub items were

Previous item							2019 item							D/A/ R/NC+	Rationale
							14. How much does each choice on each row.	of the follow	ving statemen	ts describe yo	u? Select one	answer	VIR53763		
								Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			
							I want to learn as much as possible in my English/language arts class.	<b>®</b>	<b>®</b>	0	Φ	Φ	VJ1853767		
							b. I want to become a better reader this year.	<b>®</b>	Ф	0	0	Ф	VH033177		
							<li>c. I want to understand as much as I can in my English/language arts class.</li>	<b>®</b>	<b>o</b>	0	Ф	Φ	VH953774		
							<li>d. I want to master a lot of new English/ language arts skills in my class.</li>	0	•	0	0	Φ	VH854770		
30. How much does each	of the followi	ing statement	s describe a pe	erson like you	i? Select	Vii(\$89132	Issue: Student Fa	7 V V 7 0	ing statemen	ts describe vo	u? Select one	answer	VID4168	R	The phrase
one answer choice on	each row.						choice on each row.								person like"
one answer choice on	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like	e	choice on each row.	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			person like"
one answer choice on  a. Reading is one of my favorite activities.	each row.	A little bit	Somewhat like me			V10260271	a. Reading is one of my favorite activities.	Not at all	A little bit	Somewhat	Quite a bit		VHS=1109		person like"
one answer choice on  Reading is one of my favorite activities.  I like talking about books with other people.	Not at all like me	A little bit like me	like me	like me	me		choice on each tow.  a. Reading is one of my	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	me			person like" was remove and a sub- item was
one answer choice on  a. Reading is one of my havorite activities. b. I like talking about books with other people, c. I think reading is important.	Not at all like me	A little bit like me	like me	like me	Ф	VH260271	a. Reading is one of my favorite activities. b. I like talking about books with other	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Ф	V76841169		person like" was remove and a sub-
a. Reading is one of my favorite activities. b. Hike talking about books with other people. c. I think reading is	Not at all like me	A little bit like me	like me	Tike me	me	VH260271 VH260272	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Ф	VH844169 VH844170		person like" was remove and a sub- item was
a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a	Not at all like me	A little bit like me	like me	©	Ф	VH260271 VH260272	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	те Ф Ф	V76844170 V16844170		person like" was remove and a sub- item was
one answer choice on  a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library.	Not at all like me	A little bit like me	like me	©	Ф	VH260271 VH260272	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library. e. I enjoy finding things	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	те Ф Ф	V76844170 V76844172 V76844172		person like' was remove and a sub- item was
one answer choice on  a. Reading is one of my favorite activities. b. I like talking about books with other people. I think reading is important. I. I enjoy going to a bookstore or a library.	each row.  Not at all like me	A little bit like me	© © ©	like me	те  Ф  Ф	VH260271 VH260272	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library. e. I enjoy finding things to read online.	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	те  Ф  Ф  Ф	V76844170 V76844172 V76844172	NC	person like' was remove and a sub- item was
one answer choice on  a. Reading is one of my favorite activities. b. I like talking about books with other people. I think reading is important. I. I enjoy going to a bookstore or a library.  2017 Grade 4)  1. Besides doing homewow  Less than 30 minutes	each row.  Not at all like me	A little bit like me	© © ©	like me	те  Ф  Ф	V91240271 V91240272 V91240275 V91240277	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library. e. I enjoy finding things to read online.  Issue: Student Far. 7. Besides doing homeworl  © Less than 30 minutes a	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	те  Ф  Ф  Ф	V7684109 V1664170 V7684172 V7684172 V7684171		person like" was remove and a sub- item was added.
one answer choice on  a. Reading is one of my favorite activities. b. I like talking about books with other people. I think reading is important. I. I enjoy going to a bookstore or a library.  2017 Grade 4)  1. Besides doing homewow  Less than 30 minutes  About 1 hour a day	weach row.  Not at all like me	A little bit like me	© © ©	like me	те  Ф  Ф	V91240271 V91240272 V91240275 V91240277	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library. e. I enjoy finding things to read online.  Issue: Student Far. 7. Besides doing homeworl	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	те  Ф  Ф  Ф	V7684109 V1664170 V7684172 V7684172 V7684171		person like" was remove and a sub- item was added.
one answer choice on  a. Reading is one of my havorite activities. b. Ilike talking about books with other people. c. I think reading is important.  d. I enjoy going to a bookstore or a library.  2017 Grade 4)  C1. Besides doing homewow Less than 30 minutes	weach row.  Not at all like me	A little bit like me	© © ©	like me	те  Ф  Ф	V91240271 V91240272 V91240275 V91240277	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library. e. I enjoy finding things to read online.  Issue: Student Fa.  7. Besides doing homework  Less than 30 minutes a  About 30 minutes a  About 1 hour a day  About 2 hours a day	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	те  Ф  Ф  Ф	V7684109 V1664170 V7684172 V7684172 V7684171		person like" was remove and a sub- item was added.
a. Reading is one of my favorite activities. b. Hike talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library.  (2017 Grade 4)  31. Besides doing homew.  © Less than 30 minutes  © About 1 hour a day  © About 2 hours a day	weach row.  Not at all like me	A little bit like me	© © ©	like me	те  Ф  Ф	V91240271 V91240272 V91240275 V91240277	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library. e. I enjoy finding things to read online.  Issue: Student Far. 7. Besides doing homeworl	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	те  Ф  Ф  Ф	V7684109 V1664170 V7684172 V7684172 V7684171		person like" was remove and a sub- item was added.

Pilot Grade 4 Re	ading	g Stuc	dent					
2019 item							D/A/ R/NC+	Rationale
N/A							D	This item was dropped to reduce student burden and create opportunity for future development.
8. How often do you recei schoolwork outside of	ve the follo	wing types ter school?	of help with Er Select one ansy	nglish/language wer choice on e	arts ach row.	V0811176	А	This item was
	Never	About or	nce About one	ce About onc	e Every day or			added.
a. Help from a teacher	⊗	<b>©</b>	0	0	0	VER11190		
					-			
member or friend d. Help from online					1	100000		
websites or apps)			100					
9. How useful do you find	each of the	following	types of help to	understand yo	ur	VH811276	A	This item was added.
	Not us	seful at	Somewhat useful	Very useful	that type of			added.
a. Help from a teacher	0	30	0	0	0	VH61(287		
b. Help from a tutor	0	D	0	0	0	VERE1391		
c. Help from a family member or friend	0	D	(3)	0	•	VHR11.002		
d. Help from online resource (for example, websites or		D	0	0	0	VHat1304		
	8. How often do you receischoolwork outside of schoolwork outside outsid	8. How often do you receive the folloschoolwork outside of school or af Never  a. Help from a teacher	8. How often do you receive the following types schoolwork outside of school or after school?    Never	8. How often do you receive the following types of help with Exschoolwork outside of school or after school? Select one answer choices are schoolwork outside of school or after school? Select one answer choices are schoolwork outside of school or after school? Select one answer choice are schoolwork outside of school or after school? Select one answer choice are schoolwork?	8. How often do you receive the following types of help with English/language schoolwork outside of school or after school? Select one answer choice on e as week a. Help from a teacher    Never	8. How often do you receive the following types of help with English/language arts schoolwork outside of school or after school? Select one answer choice on each row.    Never	8. How often do you receive the following types of help with English/language arts schoolwork outside of school or after school? Select one answer choice on each row.    Never	8. How often do you receive the following types of help with English/language arts schoolwork outside of school or after school? Select one answer choice on each row.    Never

Previous item							2019 item							D/A/ R/NC+	Rationale
33. How often do you typo one answer choice on	ically do eacl each row.	h of the follow	ing things out	side of school	? Select	VH260006	12. How often do you typic one answer choice on e		of the followin	g activities <b>ou</b>	tside of school	? Select	VH85632	R	In the item
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	T		stem, "things" was
Talk about books (print or online) with other people	<b>®</b>	Ф	0	Φ	0	VECINIST	a. Read online about topics I am interested in	0	0	0	0	Φ	VIBISIASA		replaced with "activities". In
<ul> <li>Go to my local library to borrow books (print or online)</li> </ul>	0	0	0	Φ	Φ	V18260911	b. Talk about things I read with other people	0	0	0	0	0	VH853657		sub-item "c",
. Read blogs	Φ	0	0	Φ	0	VH260913	c. Borrow or download books from a local	0	•	0	0	0	VH883635		"Read blogs"
d. Use social media (for example, Facebook, Twitter, Instagram)	0	0	0	Φ	Φ	V11333361	d. Use social media (for example, Facebook,	@	<b>®</b>	0	60	Φ.	VH853654		was replaced with "Read
e. Help friends with reading homework	Φ	•	0	Φ	Φ	VH260917	Twitter, Instagram) e. Help friends with	@	(D)	0	0	Φ	VIDIS3638		online about
															In sub-item "b", "Go to my local library to
															borrow book (print or online)" was
															replaced wit
															download
															books from
															local library'
															and moved
															sub-item "c'

# **Appendix K-1r: Pilot Grade 4 Reading**

		VH332853
1.	How often does your teacher ask you to discuss new or difficult vocabulary?	
	Never	
	About once or twice a year	
	About once or twice a month	
	About once or twice a week	
	© Every day or almost every day	
		VH332862
2.	For school this year, how often do you work in pairs or small groups to talk abosomething that you have read?	out
	Never	
	About once or twice a year	
	© About once or twice a month	
	About once or twice a week	
	© Every day or almost every day	
		VH332871
3.	For school this year, how often do you have a class discussion about something that the class has read?	
	Never	
	About once or twice a year	
	About once or twice a month	
	About once or twice a week	
	© Every day or almost every day	

**4.** Do you think you would be able to do each of the following when reading? Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Figure out the meaning of a word you don't know by using other words in the text	0	®	0	0	Œ	VH260848
b.	Explain the meaning of something you have read	<b>(</b> A)	®	0	0	Œ	VH260849
c.	Figure out the main idea of a text	(A)	B	0	0	Œ	VH260851
d.	Find text in a reading passage to help you answer a question on a test	<b>(A)</b>	®	0	0	Œ	VH260859
e.	Recognize when you don't understand something you are reading	(4)	®	0	0	©	VH260861
f.	Recognize the difference between fact and opinion in a text	(4)	®	0	0	©	VH260863
g.	Use evidence from a text to support your answer	<b>(A)</b>	®	0	0	Œ	VH811215

- **5.** For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved reading?
  - Never
  - ® Once
  - © Two or three times
  - Tour or five times
  - More than five times

VI	<b>J</b> 5	OQ.	62	6

- **6.** On a typical school day, how much time do you use a computer or other digital device to do your **English/language arts** schoolwork?
  - Less than 30 minutes
  - About 30 minutes
  - About 1 hour
  - About 2 hours
  - © About 3 hours
  - 4 or more hours

- 7. Besides doing homework, how much time do you spend reading outside of school?
  - Less than 30 minutes a day
  - About 30 minutes a day
  - About 1 hour a day
  - About 2 hours a day
  - About 3 hours a day
  - 4 or more hours a day

**8.** How often do you receive the following types of help with English/language arts schoolwork **outside of school or after school**? Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Help from a teacher	<b>(A)</b>	®	©	0	Œ	VH811190
b. Help from a tutor	<b>(A)</b>	®	©	0	(Ē)	VH811192
c. Help from a family member or friend	<b>(A)</b>	®	0	0	Ē	VH811196
d. Help from online resources (for example, websites or apps)	<b>(A)</b>	®	0	0	Œ	VH811200

VH811276

**9.** How useful do you find each of the following types of help to understand your English/language arts schoolwork? Select **one** answer choice on each row.

	Not useful at all	Somewhat useful	Very useful	I don't receive that type of help.	
a. Help from a teacher	(A)	®	0	0	VH811287
b. Help from a tutor	(A)	®	0	0	VH811291
c. Help from a family member or friend	A	B	0	0	VH811302
d. Help from online resources (for example, websites or apps)	(8)	®	0	0	VH811304

**10.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	Reading is one of my favorite activities.	(A)	B	0	0	Ē	VH844169
b.	I like talking about books with other people.	(9)	®	0	0	©	VH844170
c.	I think reading is important.	A	B	0	0	Ē	VH844172
d.	I enjoy going to a bookstore or a library.	(A)	B	0	0	Ē	VH844171
e.	I enjoy finding things to read online.	A	B	0	0	Ē	VH853415

- **11.** In this school year, how often do you borrow reading materials (such as books or magazines) from your school (for example, a **classroom library**, **school library**, or **media center**)?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

**12.** How often do you typically do each of the following activities **outside of school**? Select **one** answer choice on each row.

		Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a.	Read online about topics I am interested in	<b>(A)</b>	®	0	0	©.	VH853656
b.	Talk about things I read with other people	A	®	0	0	Œ	VH853657
c.	Borrow or download books from a local library	<b>(A)</b>	®	0	0	Œ	VH853655
d.	Use social media (for example, Facebook, Twitter, Instagram)	(8)	®	0	0	Œ	VH853654
e.	Help friends with reading homework	A	®	0	0	Œ	VH853658

**13.** How much does each of the following statements describe you? Select **one** answer choice on each row.

Not at all A little bit Somewhat Quite a bit **Exactly like** like me like me like me like me me a. I want other students to think I am good at VH853764 **(A) (** Œ ദ  $\bigcirc$ reading. b. I want to show others that my English/ language arts VH853765 Œ **(A)** B  $\bigcirc$ **(** schoolwork is easy for me. c. I want to look smart in comparison to the other students in my VH853766  $\bigcirc$ ദ  $\bigcirc$ **(** Œ English/language arts class. d. I want to get better English/language arts Œ VH853776 A B  $\bigcirc$ 0 grades than most other students in my class.

**14.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I want to learn as much as possible in my English/language arts class.	(4)	®	0	0	©.	VH853767
b.	I want to become a better reader this year.	(A)	B	0	0	Ē	VH853777
c.	I want to understand as much as I can in my English/language arts class.	0	®	0	Φ	©.	VH853774
d.	I want to master a lot of new English/ language arts skills in my class.	0	®	0	0	Œ	VH853770

# **Appendix K-1s: Spiral Map Grade 4 Reading**

Accnum	Grade	Grade 4 OMB PDF Sequence Number	Number of Grade 4 booklets item appears in	Grade 4 booklets item appears in
VH853176	4, 8	11_00	3	1, 2, 3
VH853652	4, 8	12_00	2	1, 2
VH853656	4, 8	 12_01	2	1, 2
VH853657	4, 8		2	1, 2
VH853655	4, 8	12_03	2	1, 2
VH853654	4, 8	12_04	2	1, 2
VH853658	4, 8	12_05	2	1, 2
VH598636	4, 8	06_00	3	1, 2, 3
VH844168	4, 8	10_00	2	1, 2
VH844169	4, 8	10_01	2	1, 2
VH844170	4, 8	10_02	2	1, 2
VH844172	4, 8	10_03	2	1, 2
VH844171	4, 8	10_04	2	1, 2
VH853415	4, 8	10_05	2	1, 2
VH811176	4, 8	08_00	2	1, 2
VH811190	4, 8	08_01	2	1, 2
VH811192	4, 8	08_02	2	1, 2
VH811196	4, 8	08_03	2	1, 2
VH811200	4, 8	08_04	2	1, 2
VH811276	4, 8	09_00	2	1, 2
VH811287	4, 8	09_01	2	1, 2
VH811291	4, 8	09_02	2	1, 2
VH811302	4, 8	09_03	2	1, 2
VH811304	4, 8	09_04	2	1, 2
VH598686	4, 8	07_00	1	3
VH337050	4,8	04_00	1	3
VH260848		04_01		
	4, 8		1	3

VH260849		04_02		
	4, 8		1	3
VH260851		04_03		
	4, 8		1	3
VH260859	4, 8	04_04	1	3
VH260861		04_05		
	4, 8		1	3
VH260863		04_06		
	4, 8		1	3
VH811215	4,8	04_07	1	3
VH853747	4, 8	13_00	1	3
VH853764	4, 8	13_01	1	3
VH853765	4, 8	13_02	1	3
VH853766	4, 8	13_03	1	3
VH853776	4, 8	13_04	1	3
VH853763	4,8	14_00	1	3
VH853767	4, 8	14_01	1	3
VH853777	4, 8	14_02	1	3
VH853774	4, 8	14_03	1	3
VH853770	4, 8	14_04	1	3
VH332853	4	01_00	1	3
VH332862	4	02_00	1	3
VH332871	4	03_00	1	3
VH588774	4, 8,12	05_00	1	3

# **Appendix K-1t: Summary of Changes Operational Grade 8 Reading**

evious item							2019 item							D/A/ R/NC+	Rationale
. For your English/lang following? Select one			w often do you	do each of th	e	VH23288T	22. For your English/langua following? Select one at	nge arts class i nswer choice	his year, how on each row.	v often do you	do each of th	e	VHUDBE	NC	N/A
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			
Have a class discussion about something that the whole class has read	Θ	(9)	8	0	θ	VIELI2888	a. Have a class discussion about something that the whole class has read	Φ	(3)	0	0	Ф	V18332888		
Work in pairs or small groups to talk about something that you have read	8	0	0	0	Ф	VIII:2459	b. Work in pairs or small groups to talk about something that you have read	Φ	00	0	0	Φ	VH332889		
017 Grade 8)							Issue: Organizatio	n of Inst	ruction			,			
. In your English/langua passage, how often do choice on each row.	nge arts class t es your teache	his year, whe r ask you to d	n reading a sto lo the followin	ory, article, or ng? Select one	other answer	VH260254	23. In your English/languag passage, how often does choice on each row.	ge arts class th s your teacher	nis year, when ask you to d	n reading a sto lo the followi	ory, article, or ng? Select one	other answer	VIC40254	R	A sub-item was dropped
	Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always			Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always			
Evaluate the main evidence in a persuasive/argument passage	9	0	0	0	Φ	VH260256	Evaluate the main evidence in a persuasive/argument passage	0	0	9	0	9	VH260256		
Analyze the author's organization of information in a passage	0	0	0	0	θ	VIII333142	b. Analyze the author's organization of information in a passage	Θ	•	0	0	Φ	VH333142		
Critique the author's craft or technique	8	0	0	0	0	VH333144	passage								
O17 Grade 8)  3. In your English/langu passage, how often de choice on each row.	oes your teach	er ask you to d				VH333074	24. In your English/langu passage, how often de choice on each row.	age arts class	this year, whe				VHS13074	R	A sub-item was dropped
. Summarize the	Never or hardly ever	Once in a while	Sometimes	Often	almost always			Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always			
passage	<b>®</b>	◎	0	0	Θ	VH333075	a. Summarize the passage	0	Φ.	0	0	Φ ,	VH333075		
of the passage	0	⑤	0	0	<b>(</b>	VH333076	b. Interpret the meaning of the passage	8	<b>®</b>	0	Θ	<b>®</b>	VH333076		
. Question the motives or feelings of the characters	∞	(8)	0	Φ	<b>©</b>	VH333079	c. Question the motives or feelings of the characters	0	<b>©</b>	0	0		VH333079		
. Identify the main ideas of the passage	0	(5)	0	Φ	0	VH333078	d. Identify the main ideas	0	Φ	©	0	Φ ,	VH333078		
. Identify the themes of the passage	@	◎	0	Φ	0	VH333094	e. Identify the themes of the passage	0	Φ	0	0	0	VH333094		
. Analyze two or more				•	<b>(D)</b>	VH333077		1						1	1

2019 O	perational Grade 8 Reading Student			
Previous item	2019 item		D/A/ R/NC+	Rationale
4. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved reading?	25. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved reading?	V16588774	NC	N/A
Never	Never     Never			
① Once	© Once			
Two or three times	© Two or three times			
D Four or five times	© Four or five times			
More than five times	More than five times			
(2017 Grade 8)	Issue: Organization of Instruction			
5. On a typical school day, how much time do you use a computer or other digital device to do your English/language arts schoolwork?	On a typical school day, how much time do you use a computer or other digital device to do your English/language arts schoolwork?	V1898636	NC	N/A
D Less than 30 minutes	D Less than 30 minutes			
About 30 minutes	About 30 minutes			
O About I hour	About I hour			
About 2 hours	About 2 hours			
About 3 hours	About 3 hours			
② 4 or more hours	4 or more hours			
(2017 Grade 8)	Issue: Resources for Learning and Instruction			
	Herbit	VIH60001	NC	N/A
6. In this school year, how often do you borrow reading materials (such as books or magazines) from your classroom library, school library, or media center?	27. In this school year, how often do you borrow reading materials (such as books or magazines) from your classroom library, school library, or media center?			,
Never				
About once or twice a year	About once or twice a year			
About once or twice a month	About once or twice a month			
About once or twice a week	About once or twice a week			
© Every day or almost every day	© Every day or almost every day			
(2017 Grade 8)	Issue: Resources for Learning and Instruction			

Previous item							2019 item							D/A/ R/NC+	Rationale
7. Do you think you wou answer choice on each		lo each of the f	ollowing wh	en reading? Se	lect one	VITSUBAT	28. Do you think you wou answer choice on each		lo each of the f	following wh	en reading? Se	lect one	VHEMBET	NC	N/A
	I definitely can't	I probably can't	Maybe	I probably can	1 definitely can			I definitely can't	I probably can't	Maybe	I probably can	I definitely			
Figure out the meaning of a word you don't know by using other words in the text	30	Φ	0	0	Ф	N11270848	a. Figure out the meaning of a word you don't know by using other words in the text	•	•	0	•	•	VHD/0848		
<ul> <li>Explain the meaning of something you have read</li> </ul>	6	•	0	6	6	VH230649	b. Explain the meaning of something you have read	0	00	0		Φ	V#12/0849		
c. Figure out the main idea of a text	0	•	0	0	Φ	VH2/085(	c. Figure out the main idea of a text	0	(D)	9	0	0	V#280851		
d. Find text in a reading passage to help you answer a question on a	GD.	0	0	0	Ф	VIII2/0639	d. Find text in a reading passage to help you	Φ	00	0	0	Φ	VH200859		
test		1 1 1 1 1					answer a question on a	•				-			
test e. Recognize when you don't understand something you are reading  2017 Grade 8)	© ald be able to d	⊕ lo each of the f	©	© contrading? Se	D Dect one	VHIZ4CHA1	e. Recognize when you don't understand something you are reading	© ctors	Φ	©	0	Φ	VH260861	NC	N/A
test  e. Recognize when you don't understand something you are reading	ald be able to c					VIMICIO	e. Recognize when you don't understand something you are reading  Issue: Student Fac.  29. Do you think you woul answer choice on each	©  Ctors  I definitely	© to each of the for		en reading? Se	© lect one		NC	N/A
test e. Recognize when you don't understand something you are reading  2017 Grade 8)  8. Do you think you wou answer choice on each	ald be able to de row.	lo each of the f	ollowing wh	en reading? Se	lect one	VIMICIO	e. Recognize when you don't understand something you are reading  Issue: Student Face 29. Do you think you wou answer choice on each  a. Recognize the difference between fact and opinion in a	©  ctors  ld be able to d	Φ to each of the fe	ollowing wh	en reading? Se	© lect one		NC	N/A
test e. Recognize when you don't understand something you are reading  2017 Grade 8)  8. Do you think you wou answer choice on each a. Recognize the difference between fact and opinion in a	ald be able to e row. 1 definitely can't	lo each of the f I probably can't	ollowing wh	en reading? Se	lect one I definitely	VIMICIO	e. Recognize when you don't understand something you are reading  Issue: Student Face 29. Do you think you woul answer choice on each  a. Recognize the difference between fact and opinion in a text b. Judge the reliability of sources (for example, how a website might be biased or	© Ctors Id be able to derow. I definitely can't	to each of the form of the for	ollowing wh Maybe	en reading? Sel	ect one	V78611 500	NC	N/A
test e. Recognize when you don't understand something you are reading  2017 Grade 8)  8. Do you think you wou answer choice on each  a. Recognize the difference between fact and opinion in a text b. Judge the reliability of sources (for example, how a website might be biased or inaccutate) c. acritique an author's craft or technique	ald be able to end tow.  I definitely can't	lo each of the f	Maybe	en reading? Se	I definitely can	V15200653	e. Recognize when you don't understand something you are reading  Issue: Student Face  29. Do you think you wou answer choice on each  a. Recognize the difference between fact and opinion in a text  b. Judge the reliability of sources (for example, how a website might be biased or inaccurate)  c. Critique an author's	©  Ctors  Id be able to do row.  I definitely can't	©  To each of the form of the	ollowing wh  Maybe	en reading? Sel	© lect one I definitely can	VICEGRA3	NC	N/A
test  e. Recognize when you don't understand something you are reading  2017 Grade 8)  8. Do you think you wou answer choice on each  a. Recognize the difference between fact and opinion in a text  b. Judge the reliability of sources (for example, how a website might be biased or inaccurate)  c. Critique an author's	ald be able to en row.  I definitely can't	I probably can't	Maybe  ©	en reading? Se	I definitely can	V15200653	e. Recognize when you don't understand something you are reading  Issue: Student Face 29. Do you think you wou answer choice on each  a. Recognize the difference between fact and opinion in a text b. Judge the reliability of sources (for example, how a website might be biased or inaccurate)	©  Ctors  Id be able to de row.  I definitely can't	© each of the form	ollowing wh  Maybe  ©	en reading? Sel	Dect one  I definitely can	V10401 100 V1040863	NC	N/A

revious item							2019 item							D/A/ R/NC+	Rationale
9. How much does each one answer choice on		ing statement	s describe a po	erson like you	? Select	VH2MH2h	30. How much does each choice on each row.	of the follow	ving statemen	ts describe yo	u? Select one	answer	VH844052	R	The phrase "a person like"
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			was removed
I want other students to think I am good at reading.	0	<b>D</b>	0	Θ	Ð	VHIMINGS	a. I want other students to think I am good at reading.	@	<b>(D)</b>	0	0	Ф	VHIMAGES		and two sub- items were
I want to show others that my English/ language arts schoolwork is easy for me.	9	0	0	0	θ	V14260929	b. I want to show others that my English/ language arts schoolwork is easy for me.	0	•	0	0	Ф	VH844066		added.
<ul> <li>I want to look smart in comparison to the other students in my English/language arts class.</li> </ul>	0	<b>®</b>	0	0	•	VIDÁNAS	c. I want to look smart in comparison to the other students in my English/language arts	۵	0	0	0	0	VH844068		
I want to learn as much as possible in my English/language arts class.	۵	Ф	0	0	Ø	VH280931	class. d. I want to get better English/language arts grades than most other students in my class.	0	0	0	0	9	V38844070		
I want to become a better reader this year.	0	Φ	0	0	Ф	VH260934	31. How much does each	of the follow	ving statemen	ts describe yo	u? Select one	answer	VIBHOU		
I want to understand as much as I can in my English/language arts class.	Φ	Φ	0	0	Ф	VH260938	choice on each row.	Not at all	A little bit	Somewhat	Quite a bit	Exactly like			
							a. I want to learn as	like me	like me	like me	like me	me			
							much as possible in my English/language arts class.	0	•	0	9	Φ	Viteleon		
							<ul> <li>b. I want to become a better reader this year.</li> </ul>	@	0	0	0	Φ	VH844097		
							<li>c. I want to understand as much as I can in my English/language arts class.</li>	Ø	⊕	0	0	0	VHISTAGAN		
							d. I want to master a lot of new English/ language arts skills in my class.	(3)	Φ	0	0	0	VH544100		
2017 Grade 8)						V1889152	Issue: Student Fa						VMR64168		
0. How much does each one answer choice on	of the follow each row.	ing statement	s describe a pe	erson like you	? Select		<ol> <li>How much does each choice on each row.</li> </ol>	of the follow	ving statemen	ts describe yo	u? Select one	answer		R	The phrase " person like"
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			was removed
Reading is one of my favorite activities.	•	Φ	0	0	Θ	VH260271	Reading is one of my favorite activities.	0	<b>®</b>	0	0	Ф	VH844169		
. Hike talking about books with other	•	•	0	0	0	VI1260272	b. I like talking about books with other people.	0	(3)	0	00	0	VH844170		
people.	@	0	0	0	Φ	VH260275	c. I think reading is important.	0	•	0	0	Φ	VII844172		
people.  I think reading is important.  I enjoy going to a															

Previous item							2019 item							D/A/ R/NC+	Rationale
11. Besides doing homew	ork how must	aine Jacon	mand vandina	auteida of cel	nol?	VH598685	22 0 11 11 1	1.1	Lance Areas	1 1		h - 12	VH598686	NC	N/A
		i time do you	spend reading	ourside of ser	1001:		33. Besides doing homew		n time do you	spend reading	outside of sc	1001			
◆ Less than 30 min							Less than 30 min								
About 30 minutes							About 30 minute								
About 1 hour a da							About 1 hour a da								
About 2 hours a d							About 2 hours a d								
About 3 hours a d	lay						About 3 hours a d	lay							
4 or more hours a	day						4 or more hours a	day							
(2017 Grade 8)							Issue: Student F	actors							
			1			VIES2809				4-1-			VHI332820	NC	N/A
12. How often do you red English/language arts				friend with			35. How often do you rec English/language arts				friend with			INC.	IN/A
Never							Never								
About once or tw	ice a year						About once or tw	ice a year							
About once or tw	ice a month						About once or tw	ice a month							
About once or tw	ice a week						About once or tw	ice a week							
© Every day or alme							© Every day or almo								
	or every any						Civery tray of aime	ost every day							
(2017 Grade 8)															
							Issue: Resources	s for Lear	ning and	Instructi	ion				
13. How often do you ty online)? Select one a	pically read ea nswer choice o	ch of the follow on each row.	ving outside o	f school (prin	t or	VII261065	34. How often do you ty online)? Select one a			ving outside o	f school (prin	t or	VII241065	R	Sub-items
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day o almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			were removed.
a. Stories or novels	0	•	0	Φ	Φ	VEE251066	a. Stories or novels	Φ	(D)	Ф	©	©	VH261086		
b. Poems	<b>®</b>	0	0	0	Φ	V14261067	b. E-mails	0	0	0	0	9	VH2A1074		
c. Plays	Φ	0	0	0	0	VEXIATORS	c. Text messages	0	0	0	0	Φ	VH261075		
d. Biographies	0	0	0	0	Ф	VEI617013	d. Biographies	0	0	0	0	Φ	VH617043		
e. Comic books	0	(3)	0	0	0	VERAID70									
f. Magazines	(0)	(0)	0	0	0	VH261074									
g. E-mails	00	0	0	0	Φ Φ	421201000#								1	

Previous item							2019 item							D/A/ R/NC+	Rationale
14. How often do you typi one answer choice on e	cally do eac each row.	h of the followi	ing things out	side of school	Select	VKOVONN	36. How often do you typi one answer choice on e	VII260006	NC	N/A					
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			
a. Talk about books (print or online) with other people	Φ	Ф	0	0	θ	VM26000T	Talk about books     (print or online) with     other people	0	0	0	0	Φ	VH250907		
<ul> <li>Go to my local library to borrow books (print or online)</li> </ul>	0	•	0	0	9	VH260911	b. Go to my local library to borrow books (print or online)	Ø	0	0	0	0	VH550911		
c. Read blogs	(3)	(3)	0	0	0	VID6091.8	c. Read blogs	(3)	0	0	0	Ф	VH260VL1		
d. Use social media (for example, Facebook, Twitter, Instagram)	•	•	0	Θ	Φ	VH33261	d. Use social media (for example, Facebook, Twitter, Instagram)	Ø	•	0	0	Ф	VIIII3261		
e. Help friends with reading homework	0	•	0	0	Θ	V10260917	e. Help friends with reading homework	<b>®</b>	(1)	0	0	Ф	VH280917		

# **Appendix K-1u: Operational Grade 8 Reading**

**22.** For your English/language arts class this year, how often do you do each of the following? Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Have a class discussion about something that the whole class has read	<b>®</b>	®	0	0	©.	VH332888
b. Work in pairs or small groups to talk about something that you have read	<b>(A)</b>	®	0	0	Œ	VH332889

VH260254

**23.** In your English/language arts class this year, when reading a story, article, or other passage, how often does your teacher ask you to do the following? Select **one** answer choice on each row.

	Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always	
a. Evaluate the main evidence in a persuasive/argument passage	<b>(A)</b>	®	0	0	©.	VH260256
b. Analyze the author's organization of information in a passage	(A)	(B)	0	0	Œ	VH333142

**24.** In your English/language arts class this year, when reading a story, article, or other passage, how often does your teacher ask you to do the following? Select **one** answer choice on each row.

		Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always	
a.	Summarize the passage	<b>(A)</b>	B	0	0	Œ	VH333075
b.	Interpret the meaning of the passage	A	®	0	0	Œ	VH333076
c.	Question the motives or feelings of the characters	(4)	®	0	0	Œ	VH333079
d.	Identify the main ideas of the passage	A	®	0	0	Œ	VH333078
e.	Identify the themes of the passage	A	®	0	0	Œ	VH333094

- **25.** For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved reading?
  - Never
  - ® Once
  - © Two or three times
  - Four or five times
  - More than five times

1/L	<b>J</b> 5	98	626	

26.	On a typical school day, how much time do you use a computer or other digital
	device to do your English/language arts schoolwork?

- Less than 30 minutes
- About 30 minutes
- O About 1 hour
- About 2 hours
- © About 3 hours
- © 4 or more hours

- **27.** In this school year, how often do you borrow reading materials (such as books or magazines) from your classroom library, school library, or media center?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

**28.** Do you think you would be able to do each of the following when reading? Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Figure out the meaning of a word you don't know by using other words in the text	(A)	®	0	•	©	VH260848
b.	Explain the meaning of something you have read	(4)	®	0	0	©.	VH260849
c.	Figure out the main idea of a text	A	®	0	0	Œ	VH260851
d.	Find text in a reading passage to help you answer a question on a test	(9)	®	0	0	©.	VH260859
e.	Recognize when you don't understand something you are reading	(A)	(B)	0	0	©.	VH260861

**29.** Do you think you would be able to do each of the following when reading? Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Recognize the difference between fact and opinion in a text	<b>®</b>	®	0	0	©.	VH260863
b.	Judge the reliability of sources (for example, how a website might be biased or inaccurate)	(9)	<b>®</b>	0	Φ	©	VH260857
c.	Critique an author's craft or technique	A	B	0	0	Œ	VH260866
d.	Use evidence from a text to support my answer	<b>(A)</b>	®	0	0	Œ	VH616841
e.	Identify the author's perspective in a persuasive text	(8)	®	0	0	Œ	VH260868

**30.** How much does each of the following statements describe you? Select **one** answer choice on each row.

Not at all A little bit Somewhat Quite a bit **Exactly like** like me like me like me like me me a. I want other students to think I am good at VH844065 A Œ B  $\bigcirc$ **(** reading. b. I want to show others that my English/ language arts VH844066  $\bigcirc$ 0 **(** Œ  $^{\odot}$ schoolwork is easy for me. c. I want to look smart in comparison to the other students in my VH844068 A 0 0 Œ  $^{\odot}$ English/language arts class. d. I want to get better English/language arts VH844070  $\bigcirc$ B 0 Œ 0 grades than most other students in my class.

**31.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a. I want to lo much as po my English arts class.	ossible in	(4)	®	0	0	©.	VH844096
b. I want to b better read	ecome a er this year.	<b>(A)</b>	B	0	0	Ē	VH844097
	inderstand s I can in my nguage arts	(4)	®	0	0	©.	VH844098
d. I want to n of new Eng language a my class.		(8)	®	0	0	Œ	VH844100

**32.** How much does each of the following statements describe you? Select **one** answer choice on each row.

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a. Reading is one of my favorite activities.	(A)	®	0	0	Œ	VH844169
b. I like talking about books with other people.	A	®	©	0	Œ	VH844170
c. I think reading is important.	A	®	0	0	Œ	VH844172
d. I enjoy going to a bookstore or a library	<i>J</i> .	®	0	0	Œ	VH844171

- 33. Besides doing homework, how much time do you spend reading outside of school?
  - Less than 30 minutes a day
  - About 30 minutes a day
  - © About 1 hour a day
  - About 2 hours a day
  - About 3 hours a day
  - ① 4 or more hours a day

**34.** How often do you typically read each of the following **outside of school** (print or online)? Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Stories or novels	A	®	0	0	Œ	VH261066
b. E-mails	A	®	0	0	(Ē)	VH261074
c. Text messages	A	®	0	0	Œ	VH261075
d. Biographies	(A)	®	0	0	©	VH617043

- **35.** How often do you receive help from a tutor, family member, or friend with English/language arts **outside of school or after school**?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

**36.** How often do you typically do each of the following things **outside of school**? Select **one** answer choice on each row.

		Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a.	Talk about books (print or online) with other people	<b>(A)</b>	®	0	0	©.	VH260907
b.	Go to my local library to borrow books (print or online)	(A)	®	0	0	©	VH260911
c.	Read blogs	A	®	0	0	(Ē)	VH260913
d.	Use social media (for example, Facebook, Twitter, Instagram)	(A)	®	0	0	©	VH333261
e.	Help friends with reading homework	A	®	0	0	Œ	VH260917

# **Appendix K-1v: Summary of Changes Pilot Grade 8 Reading**

revious item							2019 item							D/A/ R/NC+	Rationale
25. For your English/lang following? Select one			w often do you	do each of th	e	VH1/281	4. For your English/lange following? Select one				do each of th	e	VH02087	NC	N/A
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			
a. Have a class discussion about something that the whole class has read	Φ	<b>©</b>	0	9	Φ	VHUZEE	a. Have a class discussion about something that the whole class has read	Φ	0	0	<b>®</b>	Φ	VHTANA		
<ul> <li>Work in pairs or small groups to talk about something that you have read</li> </ul>	•	₫)	0	0	Ф	Vf10/2887	b. Work in pairs or small groups to talk about something that we have read	•	•	0	9	θ	V28652035		
2017 Grade 8)						VID60294	Issue: Organization	on of Ins	truction				VH290254		
<ol> <li>In your English/langu passage, how often do choice on each row.</li> </ol>						THEMES	<ol> <li>In your English/langua passage, how often do choice on each row.</li> </ol>						VIII.	NC	N/A
	Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always			Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always			
<ol> <li>Evaluate the main evidence in a persuasive/argument passage</li> </ol>	•	(8)	0	0	Θ	V11280256	a. Evaluate the main evidence in a persuasive/argument passage	9	•	θ	9	0	VH260256		
<ul> <li>Analyze the author's organization of information in a passage</li> </ul>	Φ	0	0	0	Φ	VHXXIII	b. Analyze the author's organization of information in a passage	0	0	0	0	0	VHM1142		
c. Critique the author's craft or technique	<b>®</b>	0	0	0	Ф	VI(23314)	passage					1			
2017 Grade 8)  27. In your English/langupassage, how often de choice on each row.						VIETMIN	Issue: Organizatio  5. In your English/langu- passage, how often do- choice on each row.	ige arts class t	his year, whe	n reading a sto to the following	ory, article, or ng? Select one Often	other answer  Always or almost always	ARTHUL	R	A sub-item was removed
a. Summarize the passage	0	30	0	0	Ф	VI (833075	a. Summarize the	0	0	0	0	Ф	VH333075		
b. Interpret the meaning of the passage	<b>®</b>	0	0	0	Ф	VI\$33076	b. Interpret the meaning of the passage	Ø	(3)	0	0	Ф	Vitter/a		
c. Question the motives or feelings of the characters	@	<b>®</b>	0	0	Φ	V15333079	c. Question the motives or feelings of the characters	0	0	0	0	Ф	VHERA3079		
<li>d. Identify the main ideas of the passage</li>	0	®	0	0	0	VIESSA078	d. Identify the main ideas of the passage	<b>©</b>	Ф	0	0	Ф	VH183078		
e. Identify the themes of the passage	0	0	0	0	0	Altirane	e. Identify the themes of the passage	@	0	0	0	Ф	VIESSRIP4		
f. Analyze two or more						1 1									1

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

20:	19 Pilot Grade 8 Reading Student		
Previous item	2019 item	D/A/ R/NC+	Rationale
28. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved reading?  ◆ Never  ◆ Once  ▼ Two or three times  ◆ Four or five times  ◆ More than five times  (2017 Grade 8)	17. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved reading?  Never  Once  Two or three times Four or five times More than five times Issue: Organization of Instruction	NC	N/A
29. On a typical school day, how much time do you use a computer or other digital device to do your English/language arts schoolwork and homework?  © Less than 30 minutes  © About 30 minutes  © About 1 hour  © About 2 hours  © About 3 hours  © 4 or more hours  (2017 Grade 8)		R	The word "homework" was removed.
<u>_</u> :	13. In this school year, how often do you borrow reading materials (such as books or magazines) from your school (for example, a classroom library, school library, or media center)?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day	R R	The phrase "classroom library" was added and "classroom library, school library, media center" was
(2017 Grade 8)	Issue: Resources for Learning and Instruction		bolded.

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item							2019 item							D/A/ R/NC+	Rationale
31. Do you think you wor answer choice on each		lo each of the f	ollowing wh	en reading? Se	lect one	VH260847	Do you think you wou answer choice on each		lo each of the f	ollowing wh	en reading? Se	lect one	VH266847	NC	N/A
	I definitely can't	I probably can't	Maybe	I probably	I definitely			I definitely	I probably can't	Maybe	1 probably	I definitely			
a. Figure out the meaning of a word you don't know by using other words in the text	0	Ф	0	0	Ф	V1080848	a. Figure out the meaning of a word you don't know by using other words in the text	9	0	0	Θ	θ	VHSKORKK		
b. Explain the meaning of something you have read	0	•	0	0	0	V21240849	b. Explain the meaning of something you have read	Ø	Ф	0	Φ.	Ф	VH260889		
Figure out the main idea of a text	Ø	Ф	0	0	0	VH2x0851	c. Figure out the main idea of a text	<b>®</b>	9	0	0	Θ	VH260851		
d. Find text in a reading passage to help you	æ	0	0	0	0	V11260859	d. Find text in a reading passage to help you	9	<b>®</b>	0	0	θ	VH26GRSV		
answer a question on a test	177	1-1					answer a question on a								
Recognize when you don't understand something you are reading	<b>©</b>	Φ	0	<b>©</b>	Φ	VH260661	e. Recognize when you don't understand something you are reading		Φ	0	(0)	. @	VHSMAN		
test e. Recognize when you don't understand something you are	uld be able to o	lo each of the t	ollowing wh	en reading? Se	lect one	VH01000	e. Recognize when you don't understand something you are reading	ctors ild be able to e row.	lo each of the f	ollowing wh	en reading? Se	lect one	VH260861	R	In sub-item "d", "my
test e. Recognize when you don't understand something you are reading  2017 Grade 8)  32. Do you think you wot answer choice on each	uld be able to s		1122				e. Recognize when you don't understand something you are reading  Issue: Student Fa  8. Do you think you wou answer choice on each	ctors			22.1			R	"d", "my answer" wa
test c. Recognize when you don't understand something you are reading  2017 Grade 8)  32. Do you think you wot	ald be able to on row.	lo each of the I	ollowing wh	en reading? Se	lect one		e. Recognize when you don't understand something you are reading  Issue: Student Fa.  8. Do you think you wou	Ctors ald be able to a row.	lo each of the f	ollowing wh	en reading? Se	lect one		R	"d", "my answer" wa
test e. Recognize when you don't understand something you are reading  2017 Grade 8)  32. Do you think you wot answer choice on each difference between lact and opinion in a	ald be able to on row.  I definitely can't	lo each of the t I probably can't	ollowing wh	en reading? Se	lect one  I definitely	VH61D00	e. Recognize when you don't understand something you are reading  Issue: Student Fa  8. Do you think you won answer choice on each  a. Recognize the difference between fact and opinion in a text  b. Judge the reliability of sources (for example, how a website might be biased or	Ctors  Ild be able to e row.  I definitely can't	I probably can't	ollowing wh	en reading? Se	lect one I definitely can	VH:11500	R	"d", "my answer" wa replaced wit
test  Recognize when you don't understand something you are reading  2017 Grade 8)  2017 Grade 8)  Recognize the difference between fact and opinion in a text  b. Judge the reliability of sources (for example, how a website might be biased or inaccurate) c. Critique an author's craft or technique	ald be able to on how.  I definitely can't	lo each of the t	ollowing wh  Maybe	en reading? Se	I definitely can	V1126963	e. Recognize when you don't understand something you are reading.  Issue: Student Factor and the state of the	Ctors  Ild be able to a row.  I definitely can't	I probably can't	Maybe	en reading? Se  I probably can	I definitely	V1H511900	R	"d", "my answer" wa replaced wi "your
test c. Recognize when you don't understand something you are reading  2017 Grade 8)  32. Do you think you wot answer choice on each difference between lact and opinion in a text b. Judge the reliability of sources (for example, how a website might be biased or inaccurate) c. Critique an author's	ald be able to on row.  I definitely can't	I probably can't	ollowing wh  Maybe  ©	en reading? Se  I probably can	I definitely can	V161200 - V1026663	e. Recognize when you don't understand something you are reading  Issue: Student Fa  8. Do you think you wou answer choice on each  a. Recognize the difference between fact and opinion in a text b. Judge the reliability of sources (for example, how a website might be biased or inaccurrare)	ctors ald be able to e row.  I definitely can't	I probably can't	Maybe  ©	en reading? Se  I probably can	I definitely can	VH25686X VH25686X	R	"d", "my answer" wa replaced wi "your

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item							2019 item							D/A/ R/NC+	Rationale
33. How much does each one answer choice on	of the follow each row.	ing statement	s describe a po	erson like you	17 Select	VH260026	<ol><li>How much does each choice on each row.</li></ol>	of the follow	ring statemen	ts describe yo	u? Select one	answer	VHII53747	R	The previous
1	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	- 5		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			separated
I want other students to think I am good at reading.	0	0	0	@	Φ	V11260928	I want other students     to think I am good at     reading.	9	00	0	9	9	VH853764		into two
b. I want to show others that my English/ language arts schoolwork is easy for me.	Θ	•	0	0	Θ	VH260929	b. I want to show others that my English/ language arts schoolwork is easy for me.	0	<b>®</b>	0	Ф	θ	VHESE/NO		achieveme goals items
c. I want to look smart in comparison to the other students in my English/language arts class.	Ø3	•	0	Ф	Φ	V94260#50	c. I want to look smart in comparison to the other students in my English/language arts	€	<b>®</b>	0	Φ	Φ	VE1853766		(performar
d. I want to learn as much as possible in my English/language arts class.	0	•	0	0	0	V1D60931	d. I want to get better English/language arts grades than most other	•	0	0	0	Φ	VH853776		In order to
e. I want to become a better reader this year.	(3)	•	0	0	Φ	V21260934	students in my class.								for both
f. I want to understand as much as I can in my	a	· m	0		0	VH260938	16. How much does each	of the fellow	ing statements	e danariba wa	u? Calact one	*******	VB83763		performan

choice on each row.

**Issue:** Student Factors

(2017 Grade 8)

English/language arts

0

0

16. How much does each of the following statements describe you? Select one answer

A little bit

like me

Somewhat

like me

Quite a bit like me Exactly like

me

Not at all like me and mastery goals based on a total of at least 4 items, VH844052 and VH844081 were added. The stem was revised from "describe a person like you" to "describe you".

+ This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Page 4 149

a. I want to learn as much as possible in my English/language 0 0 arts class. b. I want to become a 0 0 0 0 0 better reader this year. c. I want to understand as much as I can in my 1 0 0 0 English/language arts class.

					20	19	Pilot Grade 8 R	eading	Stude	nt					
Previous item							2019 item							D/A/ R/NC+	Rationale
34. How much does each one answer choice on	of the followi	ing statement	s describe a p	erson like you	? Select	VIES89132	<ol><li>How much does each choice on each row.</li></ol>	of the follow	ving statemen	its describe ye	ou? Select one	answer	V30544168	R	The phrase "a
	of my S S S S S S S S S S S S S S S S S S				Exactly like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			person like" was removed
Reading is one of my favorite activities.	0	0	0	0	Θ	VH260171	Reading is one of my favorite activities.	<b>®</b>	0	0	0	Ð	VH644169		and a sub-
<ul> <li>I like talking about books with other people.</li> </ul>	Φ	Φ.	0	0	Ф	VI1266272	b. I like talking about books with other people.	<b>®</b>	0	0	0	0	VH844170		item was added.
c. I think reading is important.	0	Ф	0	0	Φ	VH280275	c. I think reading is important.	<b>®</b>	0	0	0	0	VH844172		addcu.
d. I enjoy going to a bookstore or a library.	Ø	Ф	0	0	Ф	V18260271	d. I enjoy going to a bookstore or a library.	0	0	0	0	0	VH8+4171		
							e. I enjoy finding things to read online.	•	0	0	0	0	VHKMATA		
(2017 Grade 8)							Issue: Student Fa	ctors							
<ul> <li>35. Besides doing homewo</li> <li>Less than 30 minutes</li> <li>About 30 minutes</li> <li>About 1 hour a day</li> <li>About 2 hours a da</li> <li>About 3 hours a da</li> <li>4 or more hours a d</li> </ul>	a day a day y y	time do you	spend reading	outside of sci	10012		7. Besides doing homewor  Less than 30 minutes a  About 30 minutes a  About 1 hour a day  About 2 hours a day  About 3 hours a day  4 or more hours a day	es a day day	time so you	spend resulting					
(2017 Grade 8)							Issue: Student Fa	ctors							
36. How often do you rece English/language arts of Never  About once or twice  About once or twice  About once or twice  Every day or almost	e a year ce a month ce a week			friend with		VHITZON	N/A	7						D	This item was dropped to reduce student burden and create opportunity
(2017 Grade 8)															for future development.

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item							2019 item							D/A/ R/NC+	Rationale
37. How often do you typic online)? Select one ans			wing outside o	f school (print	or	VIDHOS	3. How often do you typi online)? Select <b>one</b> and			wing outside o	f school (print	or	VHOHOUS	R	Sub-items
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			were removed.
. Stories or novels	0	0	0	0	0	VH281068	a. Stories or novels	0	Ø.	0	Ф	©	VH261066		
. Poems	0	0	0	0	Φ.	V91261067	b. Biographies	9	9	0	9	0	VHet 2043		
. Plays	0	(1)	0	0	Ф	VH28 OWN	c. E-mails	0	0	0	0	0	VH261074		
Biographies	0	0	0	0	θ	A1101-0015	d. Text messages	0	0	0	0	0	VH261073		
. Comie books	0	(8)	0	0	Ф	VH2x10f0									
Magazines	00	GD GD	0	Φ	Φ	VH26-1073									
g. E-mails h. Text messages	9	(0)	0	Φ	Ф	VH261074 VH261075									
88. How often do you typi one answer choice on o		h of the follow				VIEWOON	14. How often do you typione answer choice on		of the followin	g activities ou	tside of school	? Select	VHR53652	R	In the item stem,
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	r		"things" wa
i. Talk about books (print or online) with other people	0	<b>®</b>	Ø	Φ	Φ	VH260907	a. Read online about topics I am interested in	0	0	0	0	Ф	VH853656		replaced wi "activities".
to borrow books (print of online)	0	0	.0	0	0	VH2609(1	b. Talk about things I read with other people	0	0	0	•	Φ	VH853657		sub item "a
. Read blogs	•	0	0	0	0	VH260913	c. Borrow or download books from a local	0	@	0	0	0	VH853655		"Talk about
l. Use social media (for example, Facebook, Twitter, Instagram)	Φ	0	0	0	0	VH333261	d. Use social media (for example, Facebook,		0	0	Φ		VH853654		books (pringor or online)
Help friends with reading homework	0	0	0	0	0	VPDM0017	Twitter, Instagram)	0	0	9	۵	0	V11833654		with other
							e. Help friends with reading homework	Ø	Ф	0	Φ	Φ	VHISLIANE		people" wa
2017 Grade 8)							Issue: Student Fa	ctors							replaced wi "Talk about things I read with other
															people" and was moved sub-item "b
															In sub-item
							ı							1	1 ,, ,, ,,_ ,
															"c", "Read
															"c", "Read blogs" was
															blogs" was
															blogs" was replaced w

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

	2019 Pilot Grade 8 Re	eading	g Stude	nt					
Previous item	2019 item							D/A/ R/NC+	Rationale
							YIMI176		am interested in" and moved to sub-item "a". In sub-item "b", "Go to my local library to borrow books (print or online)" was replaced with "Borrow or download books from a local library" and moved to sub-item "c".
N/A	How often do you rece schoolwork outside of	ive the follo school or af Never	About once or twice a	About once or twice a	About once or twice a	Every day or almost		A	This item was added.
	1117		year	month	week	every day			
	a. Help from a teacher b. Help from a tutor	0	0	0	0	Φ	VHS11190		
	c. Help from a family	0	0	0	60	9	Visst 1196		
	member or friend  d. Help from online resources (for example, websites or apps)	Ø	(3)	0	0	0	VHS11200		

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item	2019 item							D/A/ R/NC+	Rationale
N/A	11. How useful do you find ea English/language arts scho	och of the follow oolwork? Select	one answe	of help to te r choice o	understand yo n each row.	our	VHXIII	А	This item was
		Not useful a	Somev	what ul	ery useful	I don't receive that type of help.			auueu.
	a. Help from a teacher	@	0		0	0	VH811287		
	b. Help from a tutor	•	0		0	9	VH811291		
	c. Help from a family member or friend d. Help from online resources	•	0		0	0	VHa11302		
	(for example, websites or apps)	@	•		0	0	VER11304		
	I d	lefinitely I p	robably can't	Maybe	I probably	I definitely can			added.
N/A	Issue: Resources for  10. Do you think you would be answer choice on each row	ne able to do ead w.	h of the fol		nen reading? S		VH80222	A	This item wa
	a. Recognize the author's	Call t	an t		Call	Call			
	use of figurative language (for example, symbolism, similes, metaphors, or personification)	۵	•	0	0	Φ	VII811229		
	b. Evaluate the author's use of features in a text (for example, figurative language, voice, or transition words)	0	0	0	9	Ф	VH411227		
	c. Recognize tools the author is using (for example, rhyme, imagery, examples, or repetition)	0	0	0	0	Φ	VI661)231		
	d. Evaluate the strength and quality of evidence used by the author to support his or her position	0	0	0	9	Φ	VH(1)233		
	e. Evaluate the author's use of multimedia or non-print text (e.g., texts including images, infographics,	0	0	0	9	Φ	Valid 19237		

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

# **Appendix K-1w: Pilot Grade 8 Reading**

**1.** In your English/language arts class this year, when reading a story, article, or other passage, how often does your teacher ask you to do the following? Select **one** answer choice on each row.

	Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always	
a. Evaluate the main evidence in a persuasive/argument passage	(A)	®	0	0	©	VH260256
b. Analyze the author's organization of information in a passage	<b>(A)</b>	®	0	0	©	VH333142

VH260847

**2.** Do you think you would be able to do each of the following when reading? Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Figure out the meaning of a word you don't know by using other words in the text	(4)	®	0	0	©.	VH260848
b.	Explain the meaning of something you have read	(4)	®	0	0	Œ	VH260849
c.	Figure out the main idea of a text	<b>(A)</b>	B	0	0	Œ	VH260851
d.	Find text in a reading passage to help you answer a question on a test	(4)	<b>®</b>	0	0	©.	VH260859
e.	Recognize when you don't understand something you are reading	(8)	®	0	0	©.	VH260861

**3.** How often do you typically read each of the following **outside of school** (print or online)? Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Stories or novels	A	®	0	0	Œ	VH261066
b. Biographies	(A)	®	0	0	Œ	VH617043
c. E-mails	<b>(A)</b>	®	0	0	Œ	VH261074
d. Text messages	<b>(A)</b>	®	0	0	Œ	VH261075

VH332887

**4.** For your English/language arts class this year, how often do you do each of the following? Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Have a class discussion about something that the whole class has read	<b>®</b>	®	0	•	©.	VH332888
b. Work in pairs or small groups to talk about something that we have read	<b>(</b> 8)	®	0	Φ	Œ	VH652035

**5.** In your English/language arts class this year, when reading a story, article, or other passage, how often does your teacher ask you to do the following? Select **one** answer choice on each row.

		Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always	
a.	Summarize the passage	(A)	B	0	0	Œ)	VH333075
b.	Interpret the meaning of the passage	(A)	B	0	0	Œ	VH333076
c.	Question the motives or feelings of the characters	(A)	®	0	0	Œ	VH333079
d.	Identify the main ideas of the passage	A	®	0	0	Œ	VH333078
e.	Identify the themes of the passage	<b>(A)</b>	B	O	0	Ē	VH333094

- **6.** On a typical school day, how much time do you use a computer or other digital device to do your **English/language arts** schoolwork?
  - Less than 30 minutes
  - About 30 minutes
  - About 1 hour
  - About 2 hours
  - © About 3 hours
  - © 4 or more hours

- 7. Besides doing homework, how much time do you spend reading **outside of school**?
  - Less than 30 minutes a day
  - About 30 minutes a day
  - About 1 hour a day
  - About 2 hours a day
  - About 3 hours a day
  - 4 or more hours a day

**8.** Do you think you would be able to do each of the following when reading? Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a. Recognize the difference between fact and opinion text		<b>(A)</b>	®	©	•	©	VH260863
b. Judge the relial sources (for ex how a website be biased or inaccurate)	ample,	<b>®</b>	®	0	•	©	VH260857
c. Critique an au craft or technic		<b>(A)</b>	B	0	0	©	VH260866
d. Use evidence f text to support answer		(A)	®	0	0	©.	VH811215
e. Identify the au perspective in persuasive text	a	<b>(A)</b>	®	0	0	©	VH260868

VH811176

**9.** How often do you receive the following types of help with English/language arts schoolwork **outside of school or after school?** Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Help from a teacher	A	®	0	0	Œ	VH811190
b. Help from a tutor	A	®	0	0	Œ	VH811192
c. Help from a family member or friend	A	®	0	0	Œ	VH811196
d. Help from online resources (for example, websites or apps)	<b>(A)</b>	®	0	0	Œ	VH811200

**10.** Do you think you would be able to do each of the following when reading? Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Recognize the author's use of figurative language (for example, symbolism, similes, metaphors, or personification)	(4)	®	0	0	©.	VH811229
b.	Evaluate the author's use of features in a text (for example, figurative language, voice, or transition words)	(4)	<b>®</b>	0	Φ	(£)	VH811227
c.	Recognize tools the author is using (for example, rhyme, imagery, examples, or repetition)	(4)	<b>®</b>	0	0	©	VH811231
d.	Evaluate the strength and quality of evidence used by the author to support his or her position	(4)	<b>®</b>	0	Φ	<b>©</b>	VH811233 (
e.	Evaluate the author's use of multimedia or non-print text (e.g., texts including images, infographics, or animations)	<b>®</b>	®	0	Φ	<b>©</b>	VH811237

**11.** How useful do you find each of the following types of help to understand your English/language arts schoolwork? Select **one** answer choice on each row.

	Not useful at all	Somewhat useful	Very useful	I don't receive that type of help.	
a. Help from a teacher	<b>(A)</b>	®	0	0	VH811287
b. Help from a tutor	(A)	®	0	0	VH811291
c. Help from a family member or friend	A	®	0	0	VH811302
d. Help from online resources (for example, websites or apps)	(9)	®	0	0	VH811304

VH844168

**12.** How much does each of the following statements describe you? Select **one** answer choice on each row.

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a. Reading is one of my favorite activities.	(A)	®	0	0	Œ	VH844169
b. I like talking about books with other people.	(A)	®	0	0	Œ	VH844170
c. I think reading is important.	(A)	®	0	0	Œ	VH844172
d. I enjoy going to a bookstore or a library.	A	®	0	0	Œ	VH844171
e. I enjoy finding things to read online.	A	®	0	0	Œ	VH853415

- **13.** In this school year, how often do you borrow reading materials (such as books or magazines) from your school (for example, a **classroom library**, **school library**, or **media center**)?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

**14.** How often do you typically do each of the following activities **outside of school**? Select **one** answer choice on each row.

		Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a.	Read online about topics I am interested in	<b>(A)</b>	®	0	0	©.	VH853656
b.	Talk about things I read with other people	A	®	0	0	Œ	VH853657
c.	Borrow or download books from a local library	<b>(A)</b>	®	0	0	Œ	VH853655
d.	Use social media (for example, Facebook, Twitter, Instagram)	(8)	®	0	0	Œ	VH853654
e.	Help friends with reading homework	A	®	0	0	Œ	VH853658

**15.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a. I want other stud to think I am goo reading.		<b>®</b>	®	0	0	Œ	VH853764
b. I want to show of that my English/ language arts schoolwork is easume.		<b>®</b>	®	0	0	©.	VH853765
c. I want to look sm comparison to th other students in English/language class.	e my	(4)	®	0	0	©	VH853766
d. I want to get bett English/language grades than most students in my c.	arts other	<b>(</b> 8)	®	©	0	Ē	VH853776

**16.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
1	I want to learn as much as possible in my English/language arts class.	(4)	®	0	0	©.	VH853767
	I want to become a better reader this year.	(A)	B	0	0	Ē	VH853777
[	I want to understand as much as I can in my English/language arts class.	0	®	0	Φ	©.	VH853774
	I want to master a lot of new English/ language arts skills in my class.	(4)	®	0	0	©.	VH853770

- 17. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved reading?
  - Never
  - Once
  - © Two or three times
  - Four or five times
  - More than five times

# **Appendix K-1x: Spiral Map Grade 8 Reading**

Accnum	Grade	Grade 8 OMB PDF Sequence Number	Number of Grade 8 booklets item appears in	Grade 8 booklets item appears in
VH853176	4, 8	13 00	3	1, 2, 3
VH853652	4, 8	14 00	2	1, 2
VH853656	4, 8		2	1, 2
VH853657	4, 8	14_02	2	1, 2
VH853655	4, 8	14_03	2	1, 2
VH853654	4, 8	14_04	2	1, 2
VH853658	4, 8	14_05	2	1, 2
VH598636	4, 8	06_00	3	1, 2, 3
VH844168	4, 8	12_00	2	1, 2
VH844169	4, 8	12_01	2	1, 2
VH844170	4, 8	12_02	2	1, 2
VH844172	4, 8	12_03	2	1, 2
VH844171	4, 8	12_04	2	1, 2
VH853415	4, 8	12_05	2	1, 2
VH811176	4, 8	09_00	2	1, 2
VH811190	4, 8	09_01	2	1, 2
VH811192	4, 8	09_02	2	1, 2
VH811196	4, 8	09_03	2	1, 2
VH811200	4, 8	09_04	2	1, 2
VH811276	4, 8	11_00	2	1, 2
VH811287	4, 8	11_01	2	1, 2
VH811291	4, 8	11_02	2	1, 2
VH811302	4, 8	11_03	2	1, 2
VH811304	4, 8	11_04	2	1, 2
VH598686	4, 8	07_00	1	3
VH332887	8	04_00	1	3
VH332888	8	04_01	1	3
VH652035	8	04_02	1	3
VH260254	8	01_00	1	3

VH260256	8	01_01	1	3
VH333142	8	01_02	1	3
VH333074	8	05_00	1	3
VH333075	8	05_01	1	3
VH333076	8	05_02	1	3
VH333079	8	05_03	1	3
VH333078	8	05_04	1	3
VH333094	8	05_05	1	3
VH261065	8	03_00	1	3
VH261066	8	03_01	1	3
VH617043	8	03_02	1	3
VH261074	8	03_03	1	3
VH261075	8	03_04	1	3
VH260847	4, 8	02_00	1	3
VH260848	4, 8	02_01	1	3
VH260849	4, 8	02_02	1	3
VH260851	4, 8	02_03	1	3
VH260859	4, 8	02_04	1	3
VH260861	4, 8	02_05	1	3
VH611300	8	08_00	1	3
VH260863	4, 8	08_01	1	3
VH260857	8	08_02	1	3
VH260866	8	08_03	1	3
VH811215	4, 8	08_04	1	3
VH260868	8	08_05	1	3
VH853747	4, 8	15_00	1	3
VH853764	4, 8	15_01	1	3
VH853765	4, 8	15_02	1	3
VH853766	4, 8	15_03	1	3
VH853776	4, 8	15_04	1	3
VH853763	4, 8	16_00	1	3
VH853767	4, 8	16_01	1	3
VH853777	4, 8	16_02	1	3
VH853774	4, 8	16_03	1	3

VH853770	4, 8	16_04	1	3
VH588774	4, 8, 12	17_00	1	3
VH811222	8	10_00	2	1, 2
VH811229	8	10_01	2	1, 2
VH811227	8	10_02	2	1, 2
VH811231	8	10_03	2	1, 2
VH811233	8	10_04	2	1, 2
VH811237	8	10_05	2	1, 2

# Appendix K-1y: Summary of Changes Operational Grade 12 Reading

Previous item							2019 item							D/A/ R/NC+	Rationale
For your English/languages each of the following?				mes have you	done	VH731527	24. For your English/langueach of the following?				times have yo	u done	VH731527	NC	N/A
	Never	Once	2 or 3 times	4 or 5 times	6 or more times			Never	Once	2 or 3 times	4 or 5 times	6 or more times			
Made a presentation to the class about something that you have read	<b>Ø</b>	<b>(D</b>	0	0	Ф	VH741330	Made a presentation to the class about something that you have read	6	69	0	6	0	VH731530		
b. Done a project about something that you have read (for example, written a play, created a website)	<b>®</b>	<b>®</b>	0	0	6	VH751802	b. Done a project about something that you have read (for example, written a play, created a website)	Φ	•	0	9	0	VH731529		
(2018 Grade 12)							Issue: Organization	on of Ins	truction						N/A
2. For your English/languated following? Select one				do each of the		VIENDO	<ol> <li>For your English/langu following? Select one a</li> </ol>	iage arts class inswer choice	this year, how on each row.	w often do you	do each of th	e		NC	
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			
A. Have a class     discussion about     something that the     whole class has read	•	9	0	0	θ	VHRIDANS	a. Have a class discussion about something that the whole class has read	0	(0)	0	0	Θ	VHI32888		
b. Work in pairs or small groups to talk about something that we have read	<b>6</b> 0	0	9	8	0	VH642035	b. Work in pairs or small groups to talk about something that we have read	•	0	0	0	θ	V16652035		
c. Discuss different interpretations of what we have read	<b>®</b>	<b>®</b>	0	0	Φ	VHAZOU	c. Discuss different interpretations of what we have read	•	(1)	0	9	θ	VHa52037		
(2018 Grade 12)							Issue: Organization	on of Ins	truction						
<ol> <li>In your English/languagessage, how often do choice on each row.</li> </ol>	ge arts class thes your teach	nis year, when er ask you to (	reading a stor do the followir	y, article, or o ng? Select <b>one</b>	ther answer	VH260254	26. In your English/langua passage, how often do choice on each row.	ige arts class t	his year, whe	n reading a sto lo the followin	ory, article, or ng? Select <b>one</b>	other answer	VI692582	NC	N/A
	Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always			Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always			
Evaluate the main evidence in a persuasive/argument passage	0	Œ	0	0	Ф	VEDNOSA	Evaluate the main evidence in a persuasive/argument passage	0	<b>(D)</b>	0	0	Ф	VH260256		
<ul> <li>Analyze the author's organization of information in a passage</li> </ul>	3	•	0	0	Φ	VH883142	b. Analyze the author's organization of information in a passage	<b>®</b>	(3)	0	0	0	VH333142		
	0	0	0	0	0	VH383144	c. Critique the author's	0	•	0	Ф	Ф	V94.KKX144		

Previous item							2019 item							D/A/ R/NC+	Rationale
In your English/languag passage, how often doe choice on each row.						V34334074	<ol> <li>In your English/langua passage, how often do choice on each row.</li> </ol>						VH802547	NC	N/A
	Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always			Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always			
a. Summarize the passage	9	0	0	0	Φ	VII333075	a. Summarize the	00	0	0	9	0	VB185071		
b. Interpret the meaning of the passage	0	0	0	0	0	VH233076	b. Interpret the meaning	0	Ф	0	0	Φ	VH332076		
c. Question the motives or feelings of the characters	0	(5)	۵	0	0	V(4223070	of the passage c. Question the motives or feelings of the	6	Φ	0	0	Ф	VH333079		
d. Identify the main ideas of the passage	Ø	Φ	0	0	Ф	V14353076	d. Identify the main ideas	00	0	0	0	0	VH333079 VH333074 VH3330794		
c. Identify the themes of the passage	0	(1)	0	0	Ф	VHI33094	of the passage e. Identify the themes of	0	90	9	0	0			
f. Analyze two or more texts on the same topic	9	•	0	0	Ф	VIERA3077	f. Analyze two or more texts on the same topic	00	Φ	0	Φ	0	VHIAGO??		
5. For school this year, how	v often have y	ou been aske	d to write long	answers (see	veral	V18589774	Issue: Organization 28. For school this year, he	Section 1		ed to write lon	g answers (s	everal	VHS88774	NC	N/A
5. For school this year, how sentences or paragraphs reading?  Once  Two or three times  Four or five times  More than five times	s) to questions				vetal	V1898774	18 40 7 CO. C.	ow often have	you been ask			everal	VIBS8774	NC	N/A
sentences or paragraphs reading?  Never  Once Two or three times Four or five times More than five times	s) to questions				veral		28. For school this year, he sentences or paragraph reading?  Never  Once  Two or three times  Four or five times	ow often have s) to question	you been ask s on tests or a			everal	SHERICH	NC	N/A
sentences or paragraphs reading?  Never  Once Two or three times Four or five times	s) to question:	s on tests or a	e a computer or	nt involved		V1286774	28. For school this year, he sentences or paragraph reading?  Never  Once  Two or three times  More than five tim	es  on of Ins	you been ask s on tests or a truction	se a computer	t involved		VHOM224	NC NC	N/A
sentences or paragraphs reading?  Never Once Two or three times Four or five times More than five times  2018 Grade 12)	es how much ti ish/language a	s on tests or a	e a computer or	nt involved			28. For school this year, he sentences or paragraph reading?  Never  Once  Two or three times  Four or five times  More than five tim  Issue: Organization	es  on of Ins  y, how much esh/language a	you been ask s on tests or a truction	se a computer	t involved		VHSSC724		
sentences or paragraphs reading?  Never Once Two or three times Four or five times More than five times  More than five times  Con a typical school day, device to do your Engli Less than 30 minutes About 30 minutes	es how much ti ish/language a	s on tests or a	e a computer or	nt involved			28. For school this year, he sentences or paragraph reading?  Never  Once  Two or three times  Four or five times  More than five tim  Issue: Organization  29. On a typical school day device to do your Engli	es  on of Ins  y, how much esh/language a	you been ask s on tests or a truction	se a computer	t involved		VHSSC714		
sentences or paragraphs reading?  Never Once Two or three times Four or five times More than five times  More than five times  About 30 minutes About 1 hour	es how much ti ish/language a	s on tests or a	e a computer or	nt involved			28. For school this year, he sentences or paragraph reading?  Never  Once  Two or three times  Four or five times  More than five tim  Issue: Organizatio  29. On a typical school day device to do your Engli  Less than 30 minute  About 30 minutes  About 1 hour	es  on of Ins  y, how much esh/language a	you been ask s on tests or a truction	se a computer	t involved		VHS86724 VHS96036		
sentences or paragraphs reading?  Never Once Two or three times Four or five times More than five times  More than five times  Construction Less than 30 minutes About 30 minutes About 1 hour About 2 hours	es how much ti ish/language a	s on tests or a	e a computer or	nt involved			28. For school this year, he sentences or paragraph reading?  Never  Once  Two or three times  Four or five times  More than five tim  Issue: Organizatio  29. On a typical school day device to do your Engli  Less than 30 minutes  About 30 minutes  About 1 hour  About 2 hours	es  on of Ins  y, how much esh/language a	you been ask s on tests or a truction	se a computer	t involved		SHEMICH STEMMON		
sentences or paragraphs reading?  Never Once Two or three times Four or five times More than five times  More than five times  About 30 minutes About 1 hour About 2 hours About 3 hours	es how much ti ish/language a	s on tests or a	e a computer or	nt involved			28. For school this year, he sentences or paragraph reading?  Never  Once  Two or three times  Four or five times  More than five tim  Issue: Organizatio  29. On a typical school day device to do your Engli  Less than 30 minute  About 30 minutes  About 1 hour	es  on of Ins  y, how much esh/language a	you been ask s on tests or a truction	se a computer	t involved		VIEWON		
sentences or paragraphs reading?  Never Once Two or three times Four or five times More than five times  More than five times  Construction Less than 30 minutes About 30 minutes About 1 hour About 2 hours	es how much ti ish/language a	s on tests or a	e a computer or	nt involved			28. For school this year, he sentences or paragraph reading?  Never  Once  Two or three times  Four or five times  More than five tim  Issue: Organizatio  29. On a typical school day device to do your Engli  Less than 30 minutes  About 30 minutes  About 1 hour  About 2 hours	es  on of Ins  y, how much esh/language a	you been ask s on tests or a truction	se a computer	t involved		VHOMON		

revious item  WH  In this school year, how often do you borrow reading materials (such as books or							2019 item							D/A/ R/NC+	Rationale
7. In this school year, how magazines) from your	often do you l lassroom libr	orrow reading	g materials (s rary, or medi	such as books a center?	or	VH460301	30. In this school year, how magazines) from your c	often do you lassroom libr	borrow reading	ng materials rary, or medi	(such as books a center?	or	VB160301	NC	N/A
Never							magazines) from your classroom library, school library, or media center?  • Never								
About once or twice	Never     About once or twice a year						About once or twice	a year							
About once or twice	e a month						About once or twice	a month							
About once or twice	e a week						About once or twice	a week							
© Every day or almos	every day						© Every day or almost	every day							
(2018 Grade 12)							Issue: Resources 1	for Learr	ning and	Instruct	ion				
Do you think you woul answer choice on each		each of the fol	llowing wher	n reading? Sele	ect one	YHÇKKAT	31. Do you think you woul answer choice on each	ld be able to o	o each of the f	ollowing wh	en reading? Se	ect one	VIQ60s47	NC	N/A
	I definitely can't	I probably can't	Maybe	I probably can	I definitely can			I definitely can't	I probably can't	Maybe	I probably can	I definitely can			
a. Figure out the meaning of a word you	0	0	0	Φ	Θ	VH280648	Figure out the meaning of a word you don't know by using other words in the text	Φ	Φ	0	Ф	Φ	VH260848		
don't know by using the text b. Explain the meaning					Ф	VH280849	b. Explain the meaning of something you have read	0	⊕	0	0	0	VH250649		
other words in the text						VHZMINNI	c. Figure out the main	200	(3)	0	0	0	V11250851		
other words in the text b. Explain the meaning of something you have read c. Figure out the main idea of a text	Φ	d. Find text in a reading passage to help you						0				100			
other words in the text b. Explain the meaning of something you have read c. Figure out the main idea of a text d. Find text in a reading	Φ		1			V1124065V	idea of a text  d. Find text in a reading passage to help you answer a question on a test	0	Φ	0	Φ	0	VH260859		

Previous item							2019 item							D/A/ R/NC+	Rationale
Do you think you woul answer choice on each		each of the fo	llowing when	reading? Sele	ect one	VII611300	32. Do you think you wou answer choice on each		lo each of the	following who	en reading? Se	lect one	VHALLIDO	NC	N/A
	I definitely can't	I probably can't	Maybe	I probably can	I definitely can			1 definitely can't	I probably can't	Maybe	I probably	1 definitely			
Recognize the difference between fact and opinion in a text	۵	Θ	0	9	Φ	V11260863	a. Recognize the difference between fact and opinion in a text	<b>®</b>	0	0	Φ	Ф	VH260863		
Judge the reliability of sources (for example, how a website might be biased or inaccurate)	•	<b>®</b>	θ	0	6	VH240857	b. Judge the reliability of sources (for example, how a website might be biased or inaccurate)	0	0	0	Ф	θ	V)D40457		
<ul> <li>c. Critique an author's craft or technique</li> </ul>	0	100	9	9	Φ	VH260866	c. Critique an author's craft or technique	<b>®</b>	0	0	Φ	Φ	V112/0986		
d. Use evidence from a text to support my answer	00	0	0	0	Ф	VH616841	d. Use evidence from a text to support my answer	•	(8)	0	Ф	Ф	V786108#1		
												-	_		
10. How much does each	of the follow	⊕ ng statements	Φ a describe a pe	erson like you	© Select	VH280868	e. Identify the author's perspective in a persuasive text  Issue: Student Fa  33. How much does each	- 6 % N N N T	© ring statemen	© ts describe yo	w? Select one	© answer	VHEMESIAN VIBARS2	R	The phrase
perspective in a persuasive text	of the follow				? Select		perspective in a persuasive text  Issue: Student Fa	ctors						R	person like"
perspective in a persuasive text  (2018 Grade 12)	of the follows	ng statements	describe a pe	erson like you	Select		Issue: Student Fa  33. How much does each choice on each row.  a. I want other students to think I am good at	ctors of the follow	ring statemen	ts describe yo	u? Select one	answer  Exactly like		R	was remove
perspective in a persuasive text  2018 Grade 12)  10. How much does each one answer choice on  a. I want other students to think I am good at	of the follow each row.	ng statements A little bit like me	describe a pe Somewhat like me	rson like you Quite a bit like me	Exactly like		a. I want other students to think I am good at reading. b. I want to show others that my English/language arts schoolwork is easy for	of the follow  Not at all like me	ring statemen A little bit like me	s describe yo	u? Select one Quite a bit like me	answer  Exactly like	VIB4652	R	person like" was remove
2018 Grade 12)  10. How much does each one answer choice on think I am good at reading.  b. I want to show others that my English/ language arts schoolwork is easy for me.  c. I want to look smart in comparison to the other students in my English/language arts class.	of the followieach row.  Not at all like me	A little bit like me	describe a pe Somewhat like me	Quite a bit like me	Exactly like me	V100006	a. I want other students to think I am good at reading. b. I want to show others that my English/ language arts schoolwork is easy for me. c. I want to look smart in comparison to the other students in my English/language arts	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	answer  Exactly like me	V884052	R	person like" was remove and two sub items were
perspective in a persuasive text  2018 Grade 12)  10. How much does each one answer choice on think I am good at reading. b. I want to show others that my English/language arts schoolwork is easy for me. c. I want to look smart in comparison to the other students in my English/language arts	of the followicach row.  Not at all like me	ng statements  A little bit like me	describe a pe	Quite a bit like me	Exactly like me	V100006	a. I want other students to think I am good at reading. b. I want to show others that my English/language arts schoolwork is easy for me. c. I want to look smart in comparison to the other students in my English/language arts class. d. I want to get better English/language arts grades than most other grades than most other	Ctors of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	answer  Exactly like me	V8844052 V9844065	R	person like" was remove and two sub items were
perspective in a persuasive text  2018 Grade 12)  10. How much does each one answer choice on think I am good at reading.  b. I want to show others that my English/language arts schoolwork is easy for me.  c. I want to look smart in comparison to the other students in my English/language arts class.  d. I want to learn as much as possible in my English/language	of the followicach row.  Not at all like me	ng statements  A little bit like me	describe a pe	Quite a bit like me	Exactly like me	V1E560928 V1E560928 V1E560929 V1E560930	a. I want other students to think I am good at reading. b. I want to show others that my English/language arts schoolwork is easy for me. c. I want to look smart in comparison to the other students in my English/language arts class. d. I want to get better English/language arts	Ctors of the follow  Not at all like me	A little bit like me	somewhat like me	Quite a bit like me	answer  Exactly like me	VERNARIOZ  VIENARIOZ  VIENARIOS  VIENARIOS	R	person like" was remove and two sub items were

Previous item							2019 item							D/A/ R/NC+	Rationale
							34. How much does each choice on each row.	of the follow	ving statemen	ts describe yo	ou? Select one	answer	V1844081		
								Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			
							I want to learn as much as possible in my English/language arts class.	0	•	0	9	Φ	V1844096		
							b. I want to become a better reader this year.	0	0	0	0	Φ.	VH5.44097		
							<li>I want to understand as much as I can in my English/language arts class.</li>	@	(1)	Ø	0	Θ	VF634098		
							d. I want to master a lot of new English/ language arts skills in my class.	Ø	<b>®</b>	0	(0)	Φ	VH844100		
1. How much does earl	of the followi	ne statements	describe a ne	rson like von	? Select	VH2809132	Issue: Student Fa		ving statemen	ts describe vo	n? Select one	answer	V3(844168	P	The phrase
one answer choice of		ng statements A little bit like me	Somewhat like me	Quite a bit like me	Exactly like		35. How much does each choice on each row.		A little bit like me	Somewhat like me	Quite a bit like me			R	The phrase person like" was remove
one answer choice of  Reading is one of my favorite activities.	Not at all	A little bit	Somewhat	Quite a bit	Exactly like		35. How much does each	of the follow	A little bit	Somewhat	Quite a bit	Exactly like		R	person like"
one answer choice of  Reading is one of my favorite activities.	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like		a. Reading is one of my favorite activities. b. I like talking about books with other  a. Reading is one of my favorite activities. b. I like talking about books with other	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me		R	person like"
Reading is one of my favorite activities.     I like talking about books with other	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me		How much does each choice on each row.      Reading is one of my favorite activities.      I like talking about books with other people.      I think reading is	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VIREGIAN	R	person like"
a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important.	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH260271 VH260272	How much does each choice on each row.      Reading is one of my favorite activities.      I like talking about books with other people.	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VIER46100 VIER4170	R	person like"
one answer choice of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library.	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH260271 VHD60273 VHD60275	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VESP44   AM VESP44   70 VESP44   72	R	person like"
one answer choice of the control of	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH260271 VHD60273 VHD60275	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library.  Issue: Student Fa  37. Besides doing homeword  Less than 30 minut  About 30 minutes a  About 1 hour a day  About 2 hours a day	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VESP44   AM VESP44   70 VESP44   72	R NC	person like"
a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library.  2018 Grade 12  12. Besides doing homew  © Less than 30 minutes  © About 1 hour a da	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH260271 VRDA0272 VHDA0275 VH260277	a. Reading is one of my favorite activities. b. I like talking about books with other people. c. I think reading is important. d. I enjoy going to a bookstore or a library.  Issue: Student Fa  37. Besides doing homewor    Description:  About 30 minutes a    About 1 hour a day	Not at all like me  Ctors  Cto	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VFB44170 VFB44170 VFB44171		person like" was remove

Previous item							2019 item							D/A/ R/NC+	Rationale
13. How often do you recei English/language arts 0	ve help from utside of sch	a tutor, family	member, or i	friend with		Vittigigo	36. How often do you receir English/language arts or				riend with		VII32830	NC	N/A
Never															
About once or twice	e a year						About once or twice	e a vear							
About once or twice	e a month						About once or twice								
About once or twice	e a week														
Every day or almost							About once or twice								
Dier, ta, or annos	creij day						<ul> <li>Every day or almost</li> </ul>	every day							
2018 Grade 12)							Issue: Resources f	for Lear	ning and	Instructi	on				
14. How often do you typi	cally read eac	h of the follow	zing outside o	school (print	OF	VH261065	38. How often do you typic		7 A		2 10 10 10 10 10	OF	Versitset	NC	N/A
online)? Select one ans			mg outside of	sensor (jame	in the second		online)? Select one ans			ving outside o	senior (princ	OI.		INC	IN/A
			A basis was as	A b	Pariser descrip								_		
	Never	About once or twice a	About once or twice a	About once or twice a	Every day or almost			Never	About once or twice a	About once or twice a	About once or twice a	Every day or almost			
		year	month	week	every day				year	month	week	every day			
a. Stories or novels	0	0	0	0	Φ	VH261066	a. Stories or novels	Ø	0	9	9	0	V11261066		
b. Poems	0	0	0	0	Θ	VH261067	b. Poems	Ø	0	0	9	Θ	VH2nH067		
c. Plays d. Biographies	0	0	9	0	9	VH261068	c. Plays	0	0	9	9	Θ	V19261068		
e. Comic books	0	9	9	0	9	VH261070	d. Biographies	<b>®</b>	0	0	0	Θ	VH617043		
f. Magazines	9	0	0	0	Φ.	VH261071	e. Comic books	<b>®</b>	(3)	0	0	0	V19264D70		
g. E-mails	<b>®</b>	•	0	0	- 0	VH261074	f. Magazines	<b>®</b>	0	0	0	Ф	VH261071 VH261074		
h. Text messages	0	OD .	0	0	(D)	V11261075	g. E-mails h. Text messages	Ø	0	9	0	Θ Θ	VH261075		
2018 Grade 12)		of the followi	About once	About once or twice a	Every day or almost every day	VH2N966	1ssue: Student Fac 39. How often do you typione answer choice on e	cally do eacl	About once or twice a	About once or twice a month	About once or twice a week	Select Every day or almost every day	V3L209900	NC	N/A
15. How often do you typi one answer choice on	Never	or twice a year	month	week	creat may						1 - 0.22		-		
a. Talk about books (print or online) with other people	Never	or twice a		week	Ф	VERDAGENIA	Talk about books     (print or online) with     other people	<b>©</b>	0	0	0	Ф	VH2/0907		
a. Talk about books (print or online) with other people b. Go to my local library to borrow books (print or online)	0	or twice a year	month ©	0	Θ	VIIIIVORII	(print or online) with other people b. Go to my local library to borrow books (print	<b>®</b>		0	9	6	VH260901		
a. Talk about books (print or online) with other people b. Go to my local library to borrow books (print or online) c. Read blogs	۵	or twice a year	month ©	۵	Φ	VIETAGETE VIETAGETE VIETAGETE	(print or online) with other people b. Go to my local library to borrow books (print or online)	<b>®</b>	<b>0</b>	6	0	Ф			
a. Talk about books (print or online) with other people b. Go to my local library to borrow books (print or online)	0	or twice a year	month ©	0	Θ		(print or online) with other people b. Go to my local library to borrow books (print	1.750	0			1 %	VH280911		

2019 Oper	ational Grade 12 Reading Student		
Previous item	2019 item	D/A R/N	
16. Are you currently enrolled in or have you taken an Advanced Placement (AP®) course in English/language arts? Select all that apply.	40. Are you currently enrolled in or have you taken an Advanced Placement (AP®) course in English/language arts? Select all that apply.	NC NC	N/A
Yes, I am enrolled in or have taken Advanced Placement (AP) English Language and Composition.	Yes, I am enrolled in or have taken Advanced Placement (AP) English Language and Composition.		
Yes, I am enrolled in or have taken Advanced Placement (AP) English Literature and Composition.	Yes, I am enrolled in or have taken Advanced Placement (AP) English Literature and Composition.		
© No, I have never taken an Advanced Placement (AP) English/language arts course.	© No, I have never taken an Advanced Placement (AP) English/language arts course.		
(2018 Grade 12)	Issue: Organization of Instruction		
17. Are you currently enrolled in or have you taken the International Baccalaureate® (IB) Language Al course?	41. Are you currently enrolled in or have you taken the International Baccalaureate® (IB) Language AI course?	NC	N/A
© Yes	∇ Yes     ✓ Yes		
© No	⊕ No		
(2018 Grade 12)	Issue: Organization of Instruction		
VIGHAN		NC	N/A
18. Are you currently enrolled in or have you taken any online English/language arts courses for high school or college credit?	42. Are you currently enrolled in or have you taken any online English/language arts courses for high school or college credit?		,
© Yes	© Yes		
◆ No	© No		
(2018 Grade 12)	Issue: Organization of Instruction		

# **Appendix K-1z: Operational Grade 12 Reading**

**24.** For your English/language arts class so far this year, how many times have you done each of the following? Select **one** answer choice on each row.

	Never	Once	2 or 3 times	4 or 5 times	6 or more times	
a. Made a presentation to the class about something that you have read	0	®	0	Θ	©.	VH731530
b. Done a project about something that you have read (for example, written a play, created a website)	0	®	0	Θ	<b>(</b>	VH731529

VH882575

**25.** For your English/language arts class this year, how often do you do each of the following? Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Have a class discussion about something that the whole class has read	<b>®</b>	®	0	Φ	©.	VH332888
b. Work in pairs or small groups to talk about something that we have read	<b>®</b>	®	0	Φ	©.	VH652035
c. Discuss different interpretations of what we have read	<b>(A)</b>	®	0	0	Œ	VH652037

**26.** In your English/language arts class this year, when reading a story, article, or other passage, how often does your teacher ask you to do the following? Select **one** answer choice on each row.

		Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always	
a.	Evaluate the main evidence in a persuasive/argument passage	<b>(</b> A)	®	0	0	©	VH260256
b.	Analyze the author's organization of information in a passage	(4)	®	0	Θ	Œ	VH333142
c.	Critique the author's craft or technique	(A)	®	0	0	Œ	VH333144

**27.** In your English/language arts class this year, when reading a story, article, or other passage, how often does your teacher ask you to do the following? Select **one** answer choice on each row.

		Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always	
a.	Summarize the passage	A	®	0	0	Œ	VH333075
b.	Interpret the meaning of the passage	(A)	®	0	0	Œ	VH333076
c.	Question the motives or feelings of the characters	(A)	®	0	0	Œ	VH333079
d.	Identify the main ideas of the passage	A	®	0	0	Œ	VH333078
e.	Identify the themes of the passage	(4)	®	0	0	(L)	VH333094
f.	Analyze two or more texts on the same topic	(4)	®	0	0	Œ	VH333077

- **28.** For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved reading?
  - Never
  - Once
  - © Two or three times
  - Tour or five times
  - More than five times

- **29.** On a typical school day, how much time do you use a computer or other digital device to do your **English/language arts** schoolwork?
  - Less than 30 minutes
  - About 30 minutes
  - O About 1 hour
  - About 2 hours
  - © About 3 hours
  - © 4 or more hours

- **30.** In this school year, how often do you borrow reading materials (such as books or magazines) from your classroom library, school library, or media center?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

**31.** Do you think you would be able to do each of the following when reading? Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Figure out the meaning of a word you don't know by using other words in the text	(A)	®	0	<b>©</b>	©	VH260848
b.	Explain the meaning of something you have read	(4)	®	0	0	©.	VH260849
c.	Figure out the main idea of a text	A	®	0	0	Œ	VH260851
d.	Find text in a reading passage to help you answer a question on a test	(9)	®	0	0	©.	VH260859
e.	Recognize when you don't understand something you are reading	(A)	(B)	0	0	©.	VH260861

**32.** Do you think you would be able to do each of the following when reading? Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Recognize the difference between fact and opinion in a text	<b>®</b>	®	0	0	©.	VH260863
b.	Judge the reliability of sources (for example, how a website might be biased or inaccurate)	(9)	<b>®</b>	0	Φ	©	VH260857
c.	Critique an author's craft or technique	A	B	0	0	Œ	VH260866
d.	Use evidence from a text to support my answer	<b>(A)</b>	®	0	0	Œ	VH616841
e.	Identify the author's perspective in a persuasive text	(8)	®	0	0	Œ	VH260868

**33.** How much does each of the following statements describe you? Select **one** answer choice on each row.

Not at all A little bit Somewhat Quite a bit **Exactly like** like me like me like me like me me a. I want other students to think I am good at VH844065 A Œ B  $\bigcirc$ **(** reading. b. I want to show others that my English/ language arts VH844066  $\bigcirc$ 0 **(** Œ  $^{\odot}$ schoolwork is easy for me. c. I want to look smart in comparison to the other students in my VH844068 A 0 0 Œ  $^{\odot}$ English/language arts class. d. I want to get better English/language arts VH844070 A B  $\bigcirc$ 0 Œ grades than most other students in my class.

**34.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a. I want to learn a much as possible my English/lang arts class.	e in	<b>(A)</b>	®	©	0	©.	VH844096
b. I want to becom better reader this		<b>(A)</b>	B	0	0	Œ	VH844097
c. I want to unders as much as I can English/language class.	in my	<b>®</b>	®	0	0	©.	VH844098
d. I want to master of new English/ language arts ski my class.		<b>(A)</b>	(B)	0	0	Œ	VH844100

**35.** How much does each of the following statements describe you? Select **one** answer choice on each row.

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a. Reading is one of my favorite activities.	A	®	0	0	Œ	VH844169
b. I like talking about books with other people.	<b>(A)</b>	®	0	0	©.	VH844170
c. I think reading is important.	A	®	0	0	Œ	VH844172
d. I enjoy going to a bookstore or a library.	A	®	0	0	Œ	VH844171

VH332820

- **36.** How often do you receive help from a tutor, family member, or friend with English/language arts **outside of school or after school**?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

VH598686

- 37. Besides doing homework, how much time do you spend reading outside of school?
  - Less than 30 minutes a day
  - About 30 minutes a day
  - About 1 hour a day
  - About 2 hours a day
  - About 3 hours a day
  - 4 or more hours a day

**38.** How often do you typically read each of the following **outside of school** (print or online)? Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Stories or novels	A	®	0	0	Œ	VH261066
b. Poems	A	®	0	0	Œ	VH261067
c. Plays	A	®	0	0	Œ	VH261068
d. Biographies	A	®	0	0	Œ	VH617043
e. Comic books	A	®	0	0	Œ	VH261070
f. Magazines	A	®	0	0	Œ	VH261071
g. E-mails	A	®	0	0	Œ	VH261074
h. Text messages	A	®	0	0	Œ	VH261075

VH260906

**39.** How often do you typically do each of the following things **outside of school**? Select **one** answer choice on each row.

		Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a.	Talk about books (print or online) with other people	<b>(A)</b>	®	0	0	Ē	VH260907
b.	Go to my local library to borrow books (print or online)	(A)	®	0	0	©	VH260911
c.	Read blogs	A	®	0	0	(Ē)	VH260913
d.	Use social media (for example, Facebook, Twitter, Instagram)	(A)	®	0	0	©	VH333261
e.	Help friends with reading homework	<b>(A)</b>	B	0	0	Ē	VH260917

40.		e you currently enrolled in or have you taken an Advanced Placement <sup>P®</sup> ) course in English/language arts? Select <b>all</b> that apply.
	<b>(A)</b>	Yes, I am enrolled in or have taken Advanced Placement (AP) English Language and Composition.

B	Yes, I am enrolled in or have taken Advanced Placement (AP) English Literature and
	Composition.

O No, I have never taken an Advanced Placement (AP) English/language arts cou	ts course.
---	------------

41.	Are you currently enrolled in or have you taken the International Baccalaureate®
	(IB) Language A1 course?

- A Yes
- No

VH240007

- **42.** Are you currently enrolled in or have you taken any online English/language arts courses for high school or college credit?
  - A Yes
  - No

# Appendix K-1aa: Summary of Changes Operational Grade 4 Mathematics

2019 Oper	rational Grade 4 Mathematics Student		
Previous item	2019 item	D/A/ R/NC+	Rationale
1. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved math?  Never  Once  Two or three times  Four or five times  More than five times	17. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved math?  Never  Once Two or three times Four or five times  More than five times	NC NC	N/A
2. For school this year, how often do you work in pairs or small groups to talk about something that you have done in math?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day  (2017 Grade 4)	Issue: Organization of Instruction  N/A	D	This item was dropped based on the ADC's recommendat ion.
3. How often do you use a computer or other digital device (excluding handheld calculators) for math at school?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day  (2017 Grade 4)	N/A	D	This item was dropped based on NCES's review of technology-use items.
4. How often do you use a computer or other digital device (excluding handheld calculators) for math homework?  ② Never  ③ About once or twice a year  ③ About once or twice a month  ③ About once or twice a week  ⑤ Every day or almost every day  (2017 Grade 4)	N/A	D	This item was dropped based on NCES's review of technology-use items.

Previous item	2019 item	D/A/ R/NC+	Rationale
5. How often do you use the Internet to learn things about math?  © Never  © About once or twice a year  © About once or twice a month  © About once or twice a week  © Every day or almost every day  (2017 Grade 4)	N/A	D	This item was dropped based on NCES's review of technology-use items.
6. How often do you use a calculator?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day	19. How often do you use a calculator?  ① Never ① About once or twice a year ② About once or twice a month ① About once or twice a week ① Every day or almost every day	NC	N/A
(2017 Grade 4)	Issue: Resources for Learning and Instruction		
7. How often do you receive help or tutoring with math outside of school or after school?  ① Never  ① About once or twice a year  ② About once or twice a month  ② About once or twice a week  ① Every day or almost every day  (2017 Grade 4)	22. How often do you receive help or tutoring with math outside of school or after school?  Never About once or twice a year About once or twice a month About once or twice a week Every day or almost every day  Issue: Resources for Learning and Instruction	NC	N/A
8. This school year, how often did the following things happen in your math class? Select one answer choice on each row.	18. This school year, how often did the following things happen in your math class? Select one answer choice on each row.	NC	N/A
Never or hardly ever half of the time About half of the time All or almost all of the time	Never or hardly ever Less than half of the time About half of the time About half of the time All or almost all of the time		
a. My teacher used computers or other digital devices when teaching math to my class.	a. My teacher used computers or other digital devices when teaching math to my class.    The state of the st		
b. My teacher required us to use computers or other digital devices to	b. My teacher required us to use computers or other digital devices to		

Previous item							2019 item							D/A/ R/NC+	Rationale
9. How often do you use n	ath in every	day life outside	e of school?		l	VH268936	20. How often do you use m	ath in every	day life outsid	e of school?			VH268936	NC	N/A
Never							Never     Nevre								
About once or twice	a vear						About once or twice	a vear							
About once or twice							About once or twice								
About once or twice	a week						About once or twice								
© Every day or almost	every day						© Every day or almost of								
(2017 Grade 4)							Issue: Resources	for Lear	rning and	d Instruc	ction				
10. How often do you par school? Select one an	rticipate in ea swer choice o	ch of the follow n each row.	ving activities	outside of		VIEwe	21. How often do you part school? Select one ans			ving activities	outside of		VH268945	NC	N/A
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day of almost every day	DE .		
a. Talk about math problems with your friends	8	0	6	0	0	V112/2004/.	Talk about math problems with your friends	0	(1)	0	Φ	Φ	VH268946		
b. Play an instrument and read music	0	•	0	0	Φ	VH268961	b. Play an instrument and read music	<b>(A)</b>	•	0	0	0	VH268961		
c. Go to websites for help with your math homework	0	0	0	0	0	VH188962	c. Go to websites for help with your math homework	0	(1)	0	Φ	<b>©</b>	VH268962		
(2017 Grade 4)  11. Have you ever helped  • Yes  • No	your friends	with their mat	h homework?			VH336085	Issue: Resources			y 10. 17.	ction		VII336085	NC	N/A
(2017 Grade 4)							Issue: Resources	for Leai	rning and	d Instruc	ction				
12. Over the past seven days, how many days have you helped your friends with their math homework? Enter the number of days.  25. Over the past seven days, how many days have you helped your friends with their math homework? Enter the number of days.						NC	N/A								
(2017 Grade 4)							Issue: Resources	for Lear	rning and	d Instruc	ction				

				,	2019	Opera	tional Grade 4	Math	ematio	s Stud	ent				
Previous item							2019 item							D/A/ R/NC+	Rationale
<ol> <li>Thinking about math, following? Do not actu</li> </ol>					ch row.	VIUGGEZ	26. Thinking about math following? Do not act	, do you thinl ually solve th	that you wo e problems. S	uld be able to o	do each of the er choice on e	ach row.	VH267672	NC	N/A
	I definitely can't	I probably can't	Maybe	1 probably	1 definited	у		I definitely can't	I probably can't	Maybe	I probably can	I definitely			
Estimate the weight of 5 apples using pounds (lbs.)	0	0	0	9	Φ	VH267674	a. Estimate the weight of 5 apples using pounds (lbs.)	@	®	0	0	0	VH267674		
<ul> <li>b. Divide 42 stickers among 6 students</li> </ul>	8	00	9	0	60	VHISTORY	b. Divide 42 stickers among 6 students	<b>®</b>	6	0	•	•	VH617317		
<li>Find the amount of carpet needed to cover a rectangular floor if you know its length and width</li>	Ø	Φ	Ø	Φ	Φ	VHI267681	c. Find the amount of carpet needed to cover a rectangular floor if you know its length and width	0	(5)	0	Φ	•	VH267682		
d. Know when to take a turkey out of the oven if it goes in at 10:00 A.M. and it takes 3 hours and 45 minutes to cook	٩	•	Ø	Φ	Φ	VHZe7es4	d. Know when to take a turkey out of the oven if it goes in at 10:00 A.M. and it takes 3 hours and 45 minutes to cook	<b>®</b>	<b>®</b>	0	Ф	Θ	VH267683		
14. How much does each one answer choice on e	of the follow each row.  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly li	ke	27. How much does eac choice on each row.	Not at all like me	A little bit		Quite a bit		VH844870	R	The previous matrix was separated
I want other students to think I am good at math.	0	<b>®</b>	0	Φ	<b>(</b>	VH269049	a. I want other students to think I am good at	⊕ ⊕	®	©	Ф	(D)	VH844871		into two
b. I want to show others that my math schoolwork is easy for me.	<b>(</b>	(8)	0	Φ	Œ	VH269050	b. I want to show others that my math schoolwork is easy for	<b>®</b>	(1)	0	0	Φ	VH844872	4	matrices of achievement
<li>c. I want to look smart in comparison to the other students in my math class.</li>	•	<b>®</b>	0	0	1	VH269053	c. I want to look smart in comparison to the other students in my	n	<b>®</b>	0	0	•	VH844873		goals items (performance
d. I want to learn as much as possible in my math class.	<b>®</b>	(8)	0	0	θ	VH269059	d. I want to get better grades than most other		1.5				VH844882	1	and mastery).
e. I want to become better in math this	<b>®</b>	(8)	0	0	<b>©</b>	VH269056	students in my math class.	<b>a</b>	(8)	0	•	•	*1,0000002		In order to create indices
year.  f. I want to understand as much as I can in my math class.	<b>®</b>	(8)	0	Φ	Φ	VH269060	28. How much does each choice on each row.	of the follow	ing statemen	ts describe you	u? Select one	answer	VH845110		for both performance
								Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			and mastery
							a. I want to learn as much as possible in my math class.	0	(1)	0	•	<b>(D)</b>	VH845117		goals based on a total of
							b. I want to master a lot of new skills in my math class.	0	(B)	0	0	•	VH845114		at least 4
							c. I want to become better in math this year.	0	<b>®</b>	0	0	<b>(D)</b>	VH845115	17117	items, VH844882
							d. I want to understand as much as I can in my math class.	0	®	0	0	Ð	VH845118		and
(2017 Grade 4)							Issue: Student F	actors							VH845114

	2019 Operational Grade 4 Mathematics Student							
Previous item	2019 item	D/A/ R/NC+	Rationale					
			were added					
			from the					
			2016 pilot					
			assessment.					
			The stem was					
			revised from					
			"describe a					
			person like					
			you" to					
			"describe					
			you".					

Previous item							2019 item						D/A/ R/NC+	Rationale				
15. How much does each one answer choice on	of the follow each row.	ing statements	ents describe a person like you? Select		29. How much does each of the following statements describe you? Select one answer choice on each row.					R	The stem was							
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			revised from "describe a			
a. I enjoy doing math.	0	0	0	0	Ф	VHISTETE	a. I enjoy doing math.	<b>®</b>	•	0	0	0	VH844770		person like you" to "describe			
<ul> <li>I look forward to my math class.</li> </ul>	0	, CD	0	0	Ф	V1123/7.0011	<ul> <li>I look forward to my math class.</li> </ul>	⊗	•	0	0	0	VH844771					
c. I am interested in the things I learn in math.	0	0	0	0	θ	VI8617324	c. I am interested in the things I learn in math.	<b>®</b>	■	0	0	0	VH844775					
<li>d. I think making an effort in math is worthwhile.</li>	Φ	0	0	0	Φ	VH267485	d. I think making an effort in math is worthwhile.	0	®	0	•	Œ	VH844772	-	you".			
e. I think math will help me even when I am not in school.	Ø	ap	0	0	œ	V12287486	e. I think math will help me even when I am not in school.	0	•	0	Φ	<b>(D)</b>	VH844777	=				
f. I think it is important to do well in math.	0	Φ	Q	Φ	Ф	VHD67487	f. I think it is important to do well in math.	<b>®</b>	<b>®</b>	0	0	Θ	VH844774					
2017 Grade 4)  6. How often do you play games) outside of school	digital games	(for example, e math?	apps, video ga	ames, or comp	outer	VH460329	Issue: Student Fa	igital games	for example, math?	apps, video ga	mes, or comp	outer	VH460329	NC	N/A			
Never																		
About once or twice	e a year						About once or twice	a year										
About once or twice	e a month						About once or twice	a month										
About once or twice							About once or twice	a week										
Every day or almost	every day						© Every day or almost	warr day										

## **Appendix K-1ab: Operational Grade 4 Mathematics**

- 17. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved math?
  - Never
  - ® Once
  - © Two or three times
  - Tour or five times
  - More than five times

**18.** This school year, how often did the following things happen in your math class? Select **one** answer choice on each row.

VH267415

		Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a.	My teacher used computers or other digital devices when teaching math to my class.	<b>(</b>	®	©	Φ	©.	VH588077
b.	My teacher required us to use computers or other digital devices to complete math assignments.	0	<b>©</b>	0	Θ	©	VH267419

19.	How	often	do	you	use a	ca	lcu]	lator?
-----	-----	-------	----	-----	-------	----	------	--------

- Never
- About once or twice a year
- About once or twice a month
- About once or twice a week
- © Every day or almost every day

- **20.** How often do you use math in everyday life **outside of school**?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

VH268945

**21.** How often do you participate in each of the following activities **outside of school**? Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Talk about math problems with your friends	<b>(A)</b>	®	0	0	©	VH268946
b. Play an instrument and read music	<b>(A)</b>	B	0	0	Ē	VH268961
c. Go to websites for help with your math homework	(A)	®	0	0	Œ	VH268962

22.		w often do you receive help or tutoring with math <b>outside of school or after</b> nool?	
	<b>(A)</b>	Never	
	$^{\odot}$	About once or twice a year	
	0	About once or twice a month	
	0	About once or twice a week	
	(E)	Every day or almost every day	
			VH460329
23.		we often do you play digital games (for example, apps, video games, or computer mes) <b>outside of school</b> that involve math?	
	lack	Never	
	$^{ ext{                                  $	About once or twice a year	
	0	About once or twice a month	
	0	About once or twice a week	
	(E)	Every day or almost every day	
			VH336085
24.	На	ve you ever helped your friends with their math homework?	
	lack	Yes	
	$^{\textcircled{B}}$	No	
			VH269037
25.		er the past seven days, how many days have you helped your friends with their oth homework? Enter the number of days.	
	1116	and notice that the individual of augus	

**26.** Thinking about math, do you think that you would be able to do each of the following? Do not actually solve the problems. Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Estimate the weight of 5 apples using pounds (lbs.)	<b>®</b>	®	0	0	Œ	VH267674
b.	Divide 42 stickers among 6 students	<b>(A)</b>	B	0	0	Œ	VH617317
c.	Find the amount of carpet needed to cover a rectangular floor if you know its length and width	(9)	<b>®</b>	0	Φ	©	VH267682
d.	Know when to take a turkey out of the oven if it goes in at 10:00 A.M. and it takes 3 hours and 45 minutes to cook	(4)	<b>®</b>	0	Φ	©.	VH267683

**27.** How much does each of the following statements describe you? Select **one** answer choice on each row.

Not at all A little bit Somewhat Quite a bit **Exactly like** like me like me like me like me me a. I want other students to think I am good at VH844871 **(A)**  $\bigcirc$ **(** Œ ദ math. b. I want to show others that my math VH844872 **(A)** B 0 **(** Œ schoolwork is easy for c. I want to look smart in comparison to the VH844873 **(A)** B  $\bigcirc$ **(** Œ other students in my math class. d. I want to get better grades than most other VH844882 **(A)**  $\bigcirc$ Œ  $^{\odot}$ **(** students in my math class.

**28.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a. I want to much as p my math	possible in	<b>®</b>	®	0	0	Œ	VH845117
b. I want to of new sk math clas	ills in my	<b>(A)</b>	®	0	0	©.	VH845114
c. I want to better in year.		<b>(A)</b>	®	0	0	Œ	VH845115
d. I want to as much a math clas	as I can in my	<b>(A)</b>	®	0	0	Œ	VH845118

**29.** How much does each of the following statements describe you? Select **one** answer choice on each row.

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a. I enjoy doing math.	A	®	©	0	(Ē)	VH844770
b. I look forward to my math class.	(A)	®	0	0	Œ	VH844771
c. I am interested in the things I learn in math.	(A)	®	0	0	©	VH844775
d. I think making an effort in math is worthwhile.	(A)	®	0	0	©	VH844772
e. I think math will help me even when I am not in school.	(A)	®	0	0	©.	VH844777
f. I think it is important to do well in math.	(A)	®	0	0	Œ	VH844774

## **Appendix K-1ac: Summary of Changes Pilot Grade 4 Mathematics**

Previous item	2019 item	D/A/ R/NC+	Rationale
21. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved math?  Never  Once  Two or three times  Four or five times  More than five times	5. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved math?  © Never  © Once  © Two or three times  © Four or five times  © More than five times	NC	N/A
(2017 Grade 4)	Issue: Organization of Instruction		
22. For school this year, how often do you work in pairs or small groups to talk about something that you have done in math?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day  (2017 Grade 4)	N/A	D	This item was dropped based on the ADC's recommendation.
23. How often do you use a computer or other digital device (excluding handheld calculators) for math at school?  O Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day  (2017 Grade 4)	N/A	D	This item was dropped based on NCES's review of technology-use items.
24. How often do you use a computer or other digital device (excluding handheld calculators) for math homework?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day  (2017 Grade 4)	N/A	D	This item was dropped based on NCES's review of technology-use items.

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

2019 Pilo	ot Grade 4 Mathematics Student		
Previous item	2019 item	D/A/ R/NC+	Rationale
25. How often do you use the Internet to learn things about math?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day  (2017 Grade 4)	N/A	D	This item was dropped based on NCES's review of technology-use items.
26. How often do you use a calculator?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day  (2017 Grade 4)	4. How often do you use a calculator?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day  Issue: Resources for Learning and Instruction	NC NC	N/A
27. How often do you receive help or tutoring with math outside of school or after school?  ② Never ③ About once or twice a year ③ About once or twice a month ⑤ About once or twice a week ① Every day or almost every day	N/A	D	This item was dropped in place of keeping VH853724, as per similar recommendat ions made for Reading based on pretesting and to ensure consistency across
(2017 Grade 4)			subjects.

202

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

					2019	9 Pilo	ot Grade 4 Mat	hemat	ics Stu	dent					
Previous item							2019 item							D/A/ R/NC+	Rationale
28. This school year, how one answer choice on		ollowing thin	gs happen in ye	our math class	? Select	Vittorals	12. This school year, how one answer choice on		ollowing thing	s happen in ye	our math class	? Select	VHM219I	R	The wording for both sub-
	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all o the time			Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			items was revised to
My teacher used computers or other digital devices when teaching math to my class.	<b>3</b>	(3)	0	Φ.	Φ	VH568077	My teacher used computers or other digital devices to go on websites or use apps when teaching math	<b>©</b>	00	0	0	Φ	VH810476		focus more on assessing
<ul> <li>My teacher required us to use computers or other digital devices to complete math assignments.</li> </ul>	0	Φ	Ø	ø	Ф	VHQ67419	b. My teacher required us to use computers or other digital devices to go on websites or use	0	00	0	0	Φ.	V94810177		what the students are utilizing the
(2017 Grade 4)							apps to complete math assignments.								technology for.
Never     About once or twice     About once or twice     About once or twice     About once or twice     Every day or almos	e a month e a week					VIC00943	Never     About once or twice     About once or twice     About once or twice     About once or twice     Every day or almost  Issue: Resources	a month a week every day	ning and	Instructi	on				
30. How often do you part school? Select one ans			wing activities	outside of		TICHWAY	<ol> <li>How often do you part school? Select one ans</li> </ol>	icipate in eac wer choice or	h of the follow each row.	ving activities	outside of		VII268965	NC	N/A
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			
Talk about math     problems with your     friends      Play an instrument	0	0	Ø	0	0	V1058946	<ul> <li>Talk about math problems with your friends</li> </ul>	0	0	0	0	Ф	VH268946		
and read music c. Go to websites for help with your math	<b>®</b>	© ©	0	0	0	VH268961 VH268963	b. Play an instrument and read music c. Go to websites for	0	<b>®</b>	0	0	Ф	VH268961		
homework							help with your math homework	<b>(3)</b>	Φ	0	Φ	Ф	VHI268962		
(2017 Grade 4)						VID36085	Issue: Resources	for Lear	ning and	Instructi	on		VHDwas	NC	N/A
31. Have you ever helped y  Tes  No	your friends v	vith their mat	h homework?				<ul><li>3. Have you ever helped yo</li><li>Yes</li><li>No</li></ul>	ur friends wi	th their math	homework?					N/A
(2017 Grade 4)							Issue: Resources	for Leari	ning and	Instructi	on				

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

revious item							2019 item							D/A/ R/NC+	Rationale
2. Over the past seven d math homework? Ent			u helped your	friends with t	their	VI4269017	Over the past seven day math homework? Enter			helped your	friends with	their	VIOMAII)	NC	N/A
2017 Grade 4)							Issue: Resources	for Learr	ning and	Instruct	ion				
33. Thinking about math following? Do not act					ch row.	VH267672	13. Thinking about math, following? Do not actu	do you think ally solve the	that you woul problems, Scl	d be able to o	do each of the er choice on e	ach row.	VH082502	R	Sub-item "a"
	I definitely	1 probably can't	Maybe	1 probably	I definitely			I definitely can't	I probably can't	Maybe	I probably	I definitely			was revised from "lbs" to
<ol> <li>Estimate the weight of 5 apples using pounds (lbs.)</li> </ol>	60	•	0	0	Ф	VH267674	a. Estimate the weight of 5 apples using pounds (lb)	6		0		Ф	VH859273		"lb"; sub-iten
b. Divide 42 stickers among 6 students	•	0	0	0	Ф	VH617317	b. Share 42 stickers equally among	0	0	0	0	0	VHStüsst		"b" was revised;
c. Find the amount of carpet needed to cover a rectangular floor if you know its length and width	Θ	Φ.	Ø	0	Ф	VH267682	6 students  c. Find the amount of carpet needed to cover a rectangular floor if you know its length	<b>@</b>	9	0	Φ	Ф	VH267682		previous sub item "d" was
<ol> <li>Know when to take a turkey out of the oven</li> </ol>			-			1	and width								replaced wit
if it goes in at 10:00 A.M. and it takes 3 hours and 45 minutes to cook	•	•	Ø	0	Ф	VH267683	d. Calculate what time the movie ends if it starts at 11:00 AM and lasts for 2 hours and 45 minutes.	<b>©</b>	₲	0	99	Φ	V1H10865		an alternate version.
if it goes in at 10:00 A.M. and it takes 3 hours and 45 minutes	of the follows	ing statements	s describe a pe	rson like you?	' Select	VH267683	the movie ends if it starts at 11:00 AM and lasts for 2 hours and	ctors	ing statement		ou? Select one	answer	VIRIORES VIRIORES	R	
if it goes in at 10:00 A.M. and it takes 3 hours and 45 minutes to cook  2017 Grade 4)  34. How much does each one answer choice or	of the follows						the movie ends if it starts at 11:00 AM and lasts for 2 hours and 45 minutes.  Issue: Student Fa.  9. How much does each	ctors				answer		R	version.  The previous
if it goes in at 10:00 A.M. and it takes 3 hours and 45 minutes to cook  2017 Grade 4)  34. How much does each one answer choice or  1. I want other students to think I am good at math.	of the follows each row.	ing statements	s describe a pe	rson like you?	Select  Exactly like		the movie ends if it starts at 11:00 AM and lasts for 2 hours and 45 minutes.  Issue: Student Fa.  9. How much does each	ctors of the follow	ring statement	s describe ye	ou? Select one	answer  Exactly like		R	The previous matrix was separated into two
if it goes in at 10:00 A.M. and it takes 3 hours and 45 minutes to cook  2017 Grade 4)  34. How much does each one answer choice on	of the follows each row.  Not at all like me	A little bit like me	s describe a pe Somewhat like me	rson like you? Quite a bit like me	Select  Exactly like me		the movie ends if it starts at 11:00 AM and lasts for 2 hours and 45 minutes.  Issue: Student Far 9. How much does each choice on each row.  a. I want to learn as much as possible about math in my class. b. I want to master a lot of new math skills in	of the follow  Not at all like me	ring statement  A little bit like me	s describe ye Somewhat like me	Quite a bit like me	Exactly like	V855944	R	The previous matrix was separated into two matrices of achievemen
if it goes in at 10:00 A.M. and it takes 3 hours and 45 minutes to cook  2017 Grade 4)  34. How much does each one answer choice or  a. I want other students to think I am good at math. b. I want to show others that my math schoolwork is easy for inc. c. I want to look smart in comparison to the other students in my	of the follows each row.  Not at all like me	A little bit like me	s describe a pe	eson like you?  Quite a bit like me	Select  Exactly like me	VH266bH	the movie ends if it starts at 11:00 AM and lasts for 2 hours and 45 minutes.  Issue: Student Fa.  9. How much does each choice on each row.  a. I want to learn as much as possible about math in my class. b. I want to master a lot	Ctors  of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VIESSIDS7	R	The previous matrix was separated into two matrices of achievemen goals items (performance)
if it goes in at 10:00 A.M. and it takes 3 hours and 45 minutes to cook  2017 Grade 4)  34. How much does each one answer choice on  1. I want other students to think I am good at math.  2. I want to show others that my math schoolwork is easy for me.  3. I want to look smart in comparison to the other students in my math class.  4. I want to learn as much as possible in	of the follows each row.  Not at all like me	A little bit like me	s describe a per Somewhat like me	Quite a bit like me	Select  Exactly like me	VEZ06046  VEZ06040	the movie ends if it starts at 11:00 AM and lasts for 2 hours and 45 minutes.  Issue: Student Fa.  9. How much does each choice on each row.  a. I want to learn as much as possible about math in my class. b. I want to master a lot of new math skills in my class. c. I want to become a better math student	Ctors  of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VERSONA  VERSONS  VERSONS  VERSONS	R	The previous matrix was separated into two matrices of achievemen goals items
if it goes in at 10:00 A.M. and it takes 3 hours and 45 minutes to cook  2017 Grade 4)  34. How much does each one answer choice or  a. I want other students to think I am good at math.  b. I want to show others that my math schoolwork is easy for me.  c. I want to look smart in comparison to the other students in my math class.  I. I want to learn as	of the follows each row.  Not at all like me	A little bit like me	s describe a pe	Quite a bit like me	Select  Exactly like me	VH2690MF VH269050 VH269053	the movie ends if it starts at 11:00 AM and lasts for 2 hours and 45 minutes.  Issue: Student Far.  9. How much does each choice on each row.  a. I want to learn as much as possible about math in my class. b. I want to master a lot of new math skills in my class. c. I want to become a better math student this year. d. I want to understand as much as I can in my	Ctors  of the follow  Not at all like me	A little bit like me	s describe ye  Somewhat like me	Quite a bit like me	Exactly like me	V1853957 V1853961 V1853961	R	The previou matrix was separated into two matrices of achievemen goals items (performanciand mastery

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item							2019 item							D/A/ R/NC+	Rationale
							<ol> <li>How much does each choice on each row.</li> </ol>	of the follow	ving statemen	ts describe yo	ou? Select one	answer	VIRSHIE		on a total of at least 4
								Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			items,
							I want other students     to think I am a good     math student.	8	<b>®</b>	0	0	0	VHs54117		VH844882 VH853961
							b. I want to show others that my math schoolwork is easy for me.	0	0	0	0	0	VH854118		and VH8451314
							<ul> <li>c. I want to look smart in comparison to the other students in my math class.</li> </ul>	0	•	0	0	Ф	VH854110		were added
							d. I want to get better math grades than most other students in my class.	8	Œ	0	0	Θ	VH854134		2016 pilot assessmen
															"describe a
							Issue: Student Fa	ctors							"describe a person like you" to "describe
35. How much does each one answer choice on		ng statements	s describe a pe	rson like youi	? Select	VIENZĖL	Issue: Student Fa		ving statemen	its describe yo	ou? Select <b>one</b>	answer	YHRSAGZK	R	"describe a person like you" to "describe you".  The stem w
		ng statements A little bit like me	s describe a pe Somewhat like me		Select  Exactly like me		10. How much does each		ving statemen  A little bit like me	ats describe yo	ou? Select one  Quite a bit like me			R	"describe
one answer choice on  a. I enjoy doing math.	each row.	A little bit	Somewhat	Quite a bit	Exactly like		How much does each choice on each row.      I enjoy doing math.	of the follow	A little bit	Somewhat	Quite a bit	Exactly like		R	"describe a person like you" to "describe you".  The stem w revised from "describe a
one answer choice on  I enjoy doing math.	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me		How much does each choice on each row.      I enjoy doing math.     I look forward to my	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me		R	"describe a person like you" to "describe you".  The stem we revised from "describe a person like"
one answer choice on  I enjoy doing math.  I look forward to my math class.  I am interested in the things I learn in math.	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	V91567470	How much does each choice on each row.      I enjoy doing math.	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	Asterotin	R	"describe a person like you" to "describe you".  The stem we revised frou "describe a describe a de
a. I enjoy doing math. b. I look forward to my math class. c. I am interested in the things I learn in math. d. I think making an effort in math is worthwhile.	each row.  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH167419 VH167481	a. I enjoy doing math. b. I look forward to my math class. c. I am interested in the	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	Asterotin	R	"describe a person like you" to "describe you".  The stem we revised from "describe a person like you" to
a. I enjoy doing math. b. I look forward to my math class. c. I am interested in the things I learn in math. d. I think making an effort in math is	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VHI07479 VHI07481 VH017324	a. I enjoy doing math. b. I look forward to my math class. c. I am interested in the things I learn in math. d. I think making an effort in math is	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH854039 VH854030 VH854034	R	"describe a person like you" to "describe you".  The stem we revised from "describe a person like you" to "describe"

205

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item	2019 item							D/A/ R/NC+	Rationale
16. How often do you play digital games (for example, apps, video games, or computer games) outside of school that involve math?  Never About once or twice a year About once or twice a month About once or twice a week Every day or almost every day  (2017 Grade 4)	6. How often do you play digital games (for example, apps, video games, or computer games) outside of school that involve math?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day  Issue: Resources for Learning and Instruction							NC	N/A
N/A	7. How often do you recei	ve the followin	ig types of h	elp with mat	h schoolwork	outside	VIBIS3724	Α	This item was
N/A	a. Help from a teacher b. Help from a family member or friend d. Help from online resources (for example, websites or apps)  Issue: Resources f	Never &	Chourt once or twice a year	About once or twice a month ©  ©  ©	About once or twice a week	almost every day	VH853725 VH853726 VH853726 VH853726	Α	added in place of VH336233. This item was pretested and kept in Reading, and to ensure consistency, the same decision was made for math.  This item was
	schoolwork? Select one		on each roy			I don't receive			added in
		all		seful V	ery useful	that type of help.			place of
	a. Help from a teacher	•	$\overline{}$	0	0	0	VH8S3733		VH336233.
	b. Help from a tutor	0	4	0	0	0	VH853784		This item was
	<ul> <li>Help from a family member or friend</li> </ul>	0	1-9	00	0	0	VH851736		pretested and
	<li>d. Help from online resource (for example, websites or apps)</li>			Φ	0	Φ	VHR53737		kept in Reading, and
	Issue: Resources f	or Learni	ng and	Instruct	ion				to ensure consistency, the same decision was

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

2019 Pilot Grade 4 Mathematics Studen	nt	
2019 item	D/A/ F R/NC+	Rationale
		made for math.
		R/NC+

207

## **Appendix K-1ad: Pilot Grade 4 Mathematics**

1. How often do you participate in each of the following activities **outside of school**? Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Talk about math problems with your friends	<b>(A)</b>	®	O	0	©.	VH268946
b. Play an instrument and read music	(A)	®	0	0	Ē	VH268961
c. Go to websites for help with your math homework	(A)	®	0	0	Œ	VH268962

2.	Over the past seven days, how many days have you helped your friends with their math homework? Enter the number of days.	VH269037
3.	Have you ever helped your friends with their math homework?	VH336085
	<ul><li>Yes</li><li>No</li></ul>	

			VH336231
4.	Ho	ow often do you <b>use a calculator</b> ?	
	lack	Never	
	ഀ	About once or twice a year	
	0	About once or twice a month	
	0	About once or twice a week	
	(E)	Every day or almost every day	
			VH350115
5.		r school this year, how often have you been asked to write long answers (several ntences or paragraphs) to questions on tests or assignments that involved math?	
	$\bigcirc$	Never	
	$^{lacktriangle}$	Once	
	0	Two or three times	
	0	Four or five times	
	(E)	More than five times	
			VH460329
6.		ow often do you play digital games (for example, apps, video games, or computer mes) <b>outside of school</b> that involve math?	
	$\bigcirc$	Never	
	$^{lacktriangle}$	About once or twice a year	
	0	About once or twice a month	
	0	About once or twice a week	
	(E)	Every day or almost every day	

7. How often do you receive the following types of help with math schoolwork **outside of school or after school**? Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Help from a teacher	A	®	0	0	(Ē)	VH853725
b. Help from a tutor	A	®	©	0	(Ē)	VH853726
c. Help from a family member or friend	A	®	0	0	Ē	VH853728
d. Help from online resources (for example, websites or apps)	<b>(A)</b>	®	0	0	©	VH853729

VH853732

**8.** How useful do you find each of the following types of help to understand your math schoolwork? Select **one** answer choice on each row.

	Not useful at all	Somewhat useful	Very useful	I don't receive that type of help.	
a. Help from a teacher	(A)	®	0	0	VH853733
b. Help from a tutor	(A)	®	0	0	VH853734
c. Help from a family member or friend	(A)	B	0	0	VH853736
d. Help from online resources (for example, websites or apps)	(9)	®	0	0	VH853737

**9.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I want to learn as much as possible about math in my class.	(4)	®	0	0	©.	VH853957
b.	I want to master a lot of new math skills in my class.	(A)	®	0	0	©	VH853961
c.	I want to become a better math student this year.	(A)	®	0	0	©	VH853949
d.	I want to understand as much as I can in my math class.	<b>(A)</b>	B	0	0	©	VH853952

**10.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I enjoy doing math.	A	®	0	0	Œ	VH854029
b.	I look forward to my math class.	A	B	0	0	Œ	VH854030
c.	I am interested in the things I learn in math.	A	B	0	0	Œ	VH854034
d.	I think making an effort in math is worthwhile.	(4)	®	0	0	©.	VH854031
e.	I think math will help me even when I am not in school.	(8)	®	0	0	Œ	VH854036
f.	I think it is important to do well in math.	<b>(A)</b>	B	O	0	Œ	VH854033

**11.** How much does each of the following statements describe you? Select **one** answer choice on each row.

VH854116

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I want other students to think I am a good math student.	<b>(A)</b>	®	©	0	©	VH854117
b.	I want to show others that my math schoolwork is easy for me.	(9)	®	0	0	Œ	VH854118
c.	I want to look smart in comparison to the other students in my math class.	<b>®</b>	®	0	0	©	VH854119
d.	I want to get better math grades than most other students in my class.	Ø	®	©	0	©	VH854134

**12.** This school year, how often did the following things happen in your math class? Select **one** answer choice on each row.

		Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a.	My teacher used computers or other digital devices to go on websites or use apps when teaching math to my class.	(4)	®	0	Φ	©.	VH810476
b.	My teacher required us to use computers or other digital devices to go on websites or use apps to complete math assignments.	<b>®</b>	®	0	Φ	©.	VH810477

VH882502

**13.** Thinking about math, do you think that you would be able to do each of the following? Do not actually solve the problems. Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Estimate the weight of 5 apples using pounds (lb)	<b>(A)</b>	®	0	0	Œ	VH858273
b.	Share 42 stickers equally among 6 students	<b>(A)</b>	®	0	0	Œ	VH810864
c.	Find the amount of carpet needed to cover a rectangular floor if you know its length and width	(9)	<b>®</b>	0	0	(i)	VH267682
d.	Calculate what time the movie ends if it starts at 11:00 AM and lasts for 2 hours and 45 minutes.	<b>®</b>	<b>®</b>	0	0	©.	VH810865

- **14.** How often do you use math in everyday life **outside of school**?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

## **Appendix K-1ae: Spiral Map Grade 4 Mathematics**

Accnum	Grade	Grade 4 OMB PDF Sequence Number	Number of Grade 4 booklets item appears in	Grade 4 booklets item appears in
VH350115	4, 8	05_00	1	3
VH336231	4	04_00	1	3
VH268936	4, 8	14_00	3	1, 2, 3
VH460329	4, 8	06_00	3	1, 2, 3
VH854116	4, 8	11_00	1	3
VH854117	4, 8	11_01	1	3
VH854118	4, 8	11_02	1	3
VH854119	4, 8	11_03	1	3
VH854134	4, 8	11_04	1	3
VH853944	4, 8	09_00	1	3
VH853957	4, 8	09_01	1	3
VH853961	4, 8	09_02	1	3
VH853949	4, 8	09_03	1	3
VH853952	4, 8	09_04	1	3
VH854028	4, 8	10_00	1	3
VH854029	4, 8	10_01	1	3
VH854030	4, 8	10_02	1	3
VH854034	4, 8	10_03	1	3
VH854031	4, 8	10_04	1	3
VH854036	4, 8	10_05	1	3
VH854033	4, 8	10_06	1	3
VH336085	4, 8	03_00	3	1, 2, 3
VH269037	4, 8	02_00	3	1, 2, 3
VH853724	4, 8	07_00	2	1, 2
VH853725	4, 8	07_01	2	1, 2
VH853726	4, 8	07_02	2	1, 2
VH853728	4, 8	07_03	2	1, 2
VH853729	4, 8	07_04	2	1, 2

Accnum	Grade	Grade 4 OMB PDF Sequence Number	Number of Grade 4 booklets item appears in	Grade 4 booklets item appears in
VH853732	4, 8	08_00	2	1, 2
VH853733	4, 8	08_01	2	1, 2
VH853734	4, 8	08_02	2	1, 2
VH853736	4, 8	08_03	2	1, 2
VH853737	4, 8	08_04	2	1, 2
VH882494	4, 8	12_00	2	1, 2
VH810476	4, 8	12_01	2	1, 2
VH810477	4, 8	12_02	2	1, 2
VH882502	4	13_00	2	1, 2
VH858273	4	13_01	2	1, 2
VH810864	4	13_02	2	1, 2
VH267682	4, 8	13_03	2	1, 2
VH810865	4	13_04	2	1, 2
VH268945	4, 8	01_00	1	3
VH268946	4, 8	01_01	1	3
VH268961	4, 8	01_02	1	3
VH268962	4, 8	01_03	1	3

# **Appendix K-1af: Summary of Changes Operational Grade 8 Mathematics**

2019 Operational Grade 8 Mathematics Student								
Previous item	2019 item		D/A/ R/NC+	Rationale				
1. What math class are you taking this year? Select one or more answer choices.  © Eighth-grade math © Ceneral eighth-grade math © Algebra I course © First year of a two-year algebra course © Second year of a two-year algebra course © Algebra I (one-year course) © Algebra II © Geometry © Other  (2017 Grade 8)	22. What math class are you taking this year? Select one or more answer choices.  © Eighth-grade math © General eighth-grade math © Algebra I course © First year of a two-year algebra course © Second year of a two-year algebra course © Algebra I (one-year course) © Algebra II © Geometry © Other	V1E26769	NC	N/A				
2. What math class do you expect to take next year?  © Geometry  © Algebra I  © Algebra I (one-year course)  © First year of a two-year Algebra I course  © Second year of a two-year Algebra I course  © Introduction to algebra or pre-algebra  © Basic or general math  © Business or consumer math  © Other math class  © I don't know.	Issue: Organization of Instruction  23. What math class do you expect to take next year?  © Geometry  © Algebra II  © Algebra I (one-year course)  © First year of a two-year Algebra I course  © Second year of a two-year Algebra I course  © Introduction to algebra or pre-algebra  © Basic or general math  © Business or consumer math  Other math class  © I don't know.  Issue: Organization of Instruction	VIDEOSS	NC	N/A				
3. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved math?  Never  Once  Two or three times  Four or five times  More than five times	24. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved math?  Never  Once Two or three times Four or five times More than five times  Issue: Organization of Instruction	VH2S015	NC	N/A				

2019 C	erational Grade 8 Mathematics Student		
Previous item	2019 item	D/A/ R/NC+	Rationale
4. For school this year, how often do you work in pairs or small groups to talk about something that you have done in math?	N/A	D	This item was dropped
			based on the
About once or twice a year			
© About once or twice a month			ADC's
About once or twice a week			recommendat
© Every day or almost every day			ion.
(2017 Grade 8)			
5. How often do you use a computer or other digital device (excluding handheld calculators) for math at school?	N/A	D	This item was dropped
© Never			based on
About once or twice a year			
About once or twice a month			NCES's review
About once or twice a week			of
© Every day or almost every day			technology-
			<u>.</u>
(2017 Grade 8)			use items.
How often do you receive help or tutoring with math outside of school or after school?	30. How often do you receive help or tutoring with math outside of school or after school?	NC	N/A
Never	Never		
About once or twice a year	About once or twice a year		
About once or twice a month	About once or twice a month		
About once or twice a week	About once or twice a week		
© Every day or almost every day	© Every day or almost every day		
(2017 Grade 8)	Issue: Resources for Learning and Instruction		
7. In your math class this year, how often have you used the following types of	25. In your math class this year, how often have you used the following types of	NC	NI/A
In your matriciass mis year, now often have you used the following types of calculators? Select one answer choice on each row.	calculators? Select one answer choice on each row.	NC	N/A
Never or hardly ever hardly ev	Never or hardly ever time Less than half of the time time All of the time time All of the time time the time		
a. Basic calculator 🐵 🌣 👁 👁 🕏	a. Basic calculator 💿 🕦 🖒 🕦 VIII.66809		
b. Graphing calculator 🐵 🖈 😊 🖜 👁	b. Graphing calculator 💿 🕦 🗅 🕦 VH268810		
(2017 Grade 8)	Januar Danar was fau Languing and Instruction		
, ,	Issue: Resources for Learning and Instruction		

					2019	Opera	tional Grade 8	Math	ematio	cs Stud	ent				
Previous item							2019 item							D/A/ R/NC+	Rationale
8. This school year, how one answer choice on	often did the f	ollowing thin	gs happen in y	our math class	s? Select	VIRGINA	26. This school year, how often did the following things happen in your math class? Select one answer choice on each row.							NC	N/A
	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all o	of		
My teacher used computers or other digital devices to show us how to work through math problems.	۵	0	9	0	θ	VH267416	My teacher used computers or other digital devices to show us how to work through math problems.	0	•	0	•	Φ	VH267416		
<ul> <li>b. I used the Internet for my math work.</li> </ul>	0	0	0	0	0	VERSONS	b. I used the Internet for	@	0	0	0	•	VH267417		
<li>c. My teacher used computers or other digital devices when teaching math to my class.</li>	8	θ	0	0	0	VH5#8077	my math work.  c. My teacher used computers or other digital devices when teaching math to my	0	•	0	0	•	VH588077		
<li>d. My teacher required us to use computers or other digital devices to complete math assignments.</li>	0	⊕	Ø	9	Φ	VH267419	class.  d. My teacher required us to use computers or other digital devices to complete math assignments.	<b>®</b>	<b>®</b>	©	0	Œ	VH267419		
9. In this school year, how (excluding handheld cale  Never  About once or twice  About once or twice  About once or twice  Every day or almost  (2017 Grade 8)	a year a month				ce	VH38636	Issue: Resources  N/A	TOI LEA	illing an	ia mstra	CHOIL			D	This item was dropped based on NCES's review of technology-use items.
10. In this school year, hov (excluding handheld ca math assignments?  Dever About once or twic About once or twic Every day or almos	e a year se a month se a week					VH336037	27. In this school year, ho (excluding handheld comath assignments?  ① Never  ① About once or twic  ② About once or twic  ① About once or twic  ② Every day or almost	alculators) to ce a year ce a month ce a week					VH336037	NC	N/A
(2017 Grade 8)							Issue: Resources	for Lea	rning an	nd Instru	ction				

Previous item						•	2019 item							D/A/ R/NC+	Rationale
11. In this school year, hor (excluding handheld compared to the compared to t	alculators) to				ce	VH617207	N/A							D	This item was dropped based on NCES's review of technology-use items.
(2017 Grade 8)  12. How often do you use math in everyday life outside of school?  © Never  © About once or twice a year  © About once or twice a month  © About once or twice a week  © Every day or almost every day  (2017 Grade 8)  28. How often do you use math in everyday life outside of school?  © Never  © About once or twice a year  © About once or twice a month  © About once or twice a week  © Every day or almost every day  (2017 Grade 8)									ction		VH288936	NC	N/A		
13. How often do you par school? Select one an	ticipate in ca swer choice o	n each row.				VH:80284	29. How often do you part school? Select one ans	icipate in ea	ch of the follow n each row.	ving activities	outside of		VH589204	NC	N/A
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			
a. Talk about math problems with your friends	00	©	0	0	0	VIII(800)	a. Talk about math problems with your friends	⊗	(3)	0	Φ	Ð	VH268946		
b. Program computers	Ø	(D)	0	Φ.	00	VH266940	b. Program computers	⊗	(5)	0	0	(D)	VH268949		
c. Play an instrument and read music	Ø	00	0	9	0	V1026961	c. Play an instrument and read music	⊗	<b>®</b>	0	0	®	VH268961		
d. Go to websites for help with your math homework	Φ	0	Θ	0	©	VFD64963	d. Go to websites for help with your math homework	<b>®</b>	(8)	0	Φ	<b>©</b>	VH268962		
(2017 Grade 8)							Issue: Resources	for Lea	ırning an	d Instru	ction				
<ul><li>14. Have you ever helped</li><li>Yes</li><li>No</li></ul>	your friends v	with their math	n homework?			VH336085	31. Have you ever helped your friends with their math homework?  © Yes  • No							NC	N/A
(2017 Grade 8)							Issue: Resources	for Lea	ırning an	d Instru	ction				

Previous item						•	2019 item							D/A/ R/NC+	Rationale
5. Over the past seven days, how many days have you helped your friends with their math homework? Enter the number of days.  2017 Grade 8)  Issue: Resources for 16. Thinking about math, do you think that you would be able to do each of the following? Do not actually solve the problems. Select one answer choice on each row.											NC	N/A			
<ol><li>Thinking about math following? Do not act</li></ol>	i, do you thinl tually solve th	that you wou e problems. Se	ld be able to lect one answ	do each of the ver choice on ea	ich row.	Vittigation	36. Thinking about math, following? Do not actu	do you think aally solve the	that you woul problems. Sele	d be able to o ect one answ	do each of the er choice on ea	ach row.	VIIABUSES	R	Items VH267674,
	I definitely can't	I probably can't	Maybe	I probably can	I definitely can			I definitely can't	I probably can't	Maybe	I probably can	I definitely can			VH617317,
Estimate the weight of 5 apples using pounds (lbs.)	90	Ф	0	0	0	VEI257674	List all of the different possible outcomes when a coin is flipped	8	(1)	0	0	•	VH460382		VH267681,
b. Divide 42 stickers among 6 students	0	Ф	0	0	Φ	VHA17317	b. Create an expression								VH267683,
c. Determine a 20 percent tip of a 67-dollar restaurant dinner bill	0	00	9	Φ	Φ	YH247678	that represents the average number of miles you run in a week if you run 100	•	•	0	•	Φ	VH460383		VH460348, VH460355,
d. Describe the properties shared by every isosceles right triangle	0	Φ	0	0	Φ	VH167681	miles in w weeks  c. Determine a 20 percent tip of a 67-dollar restaurant	@	<b>®</b>	0	0	<b>®</b>	VH267679		VH460381, VH460386,
<li>Find the amount of carpet needed to cover a rectangular floor if you know its length and width</li>	8	æ	0	9	60	WITEGARE	dinner bill  d. Find the amount of carpet needed to cover a rectangular floor if you know its length	0	•	0	Φ	•	VH267682		VH460389, VH460391,
f. Know when to take a turkey out of the oven if it goes in at 10:00 A.M. and it takes 3 hours and 45 minutes	9	Ф	0	Φ	Φ	VH367683	and width  e. Give an example to show that a math statement is false	@	•	0	0	•	VH460399		VH460398, VH460900, and
to cook  23. Thinking about math	. do vou think	that you woul	d be able to	do each of the		Asstation	f. Explain to your classmate how you solved a math problem	0	0	0	Φ	Φ	VH460910		VH460912
following? Do not act	ually solve the	problems, Sel	ect one answ	er choice on ca			g. Use correct mathematical words and symbols when	<b>®</b>	<b>(b)</b>	0	0	Φ	VH460902		were droppe
	I definitely can't	I probably can't	Maybe	I probably can	I definitely can		showing your work				1.3			4	based on
Create a bar graph to represent the number of desks, chairs, and tables in your classroom	Ø	00	Ø	0	Ф	VH460348									NCES's revie
b. Use a box plot to represent the height, in inches, of all of the students in your class	<b>(3</b> )	0	9	0	Φ	VH4#Q355									efficacy item for grade 8.
c. Determine the probability of picking a blue marble without looking if you know the number of marbles of each color in a bag	0	9	8	6	0	379460381									
d. List all of the different possible outcomes when a coin is flipped three times	Ø	Ф	0	0	Ф	Wisaumeri.									

Previous item							2019 item	D/A/ R/NC+	Rationale
24. Thinking about math, following? Do not actu	do you think ually solve the	that you woul problems. Sel	ld be able to o	do each of the er choice on ea	ch row.	VH613511			
	1 definitely can't	I probably can't	Maybe	I probably can	I definitely can				
Create an expression that represents the average number of miles you run in a week if you run 100 miles in w weeks	9	0	θ	Ф	θ	VH4eGJR3			
<ul> <li>b. Create an expression to show how old you will be in n years if you are 8 years old today</li> </ul>	8	9	0	θ	Θ	VHI460386			
<li>c. Create an expression that shows the number of wheels on n wagons if each wagon has 4 wheels</li>	8	θ	9	0	Ф	VHI60389			
d. Explain how you know the number of books you can buy if you know the price of each book and you have \$35	60	00	9	Φ.	Ф	VH460391			
						VH613523			
following? Select one	do you think answer choice I definitely can't	that you woul on each row. I probably can't	d be able to o	I probably	I definitely				
a. Decide if your classmate's math work is correct	I definitely	on each row.		I probably					
a. Decide if your classmate's math work is correct b. Give an example to show that a math statement is false	I definitely can't	I probably can't	Maybe	I probably can	can				
a. Decide if your classmate's math work is correct b. Give an example to show that a math statement is false c. Explain to your classmate how you solved a math problem	I definitely can't	on each row.  I probably can't	Maybe ©	I probably can	© ©	VH460398			
a. Decide if your classmate's math work is correct b. Give an example to show that a math statement is false c. Explain to your classmate how you solved a math problem d. Use correct mathematical words and symbols to communicate ideas about math	I definitely can't	I probably can't	Maybe ©	I probably can	© ©	V11460398 V11460399			
a. Decide if your classmate's math work is correct b. Give an example to show that a math statement is false c. Explain to your classmate how you solved a math problem d. Use correct mathematical words and symbols to communicate ideas	I definitely can't	I probably can't	Maybe  ©  ©	I probably can	© ©	V14460398 V14460399 V14460910			

							2019 item							D/A/ R/NC+	Rationale
17. How much does each one answer choice on	of the followi	ng statements	describe a pe	rson like you?	Select	Vethelote	37. How much does each choice on each row.	of the follow	ving statement	ts describe yo	u? Select one	answer	VH844870	R	The previou
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			separated
I want other students to think I am good at math.	۵	Φ	O	69	Φ	VH269049	a. I want other students to think I am good at math.	(a)	(8)	©	Φ	Ф	VH844871		into two
b. I want to show others that my math schoolwork is easy for me.	Φ	9	0	Φ	Ф	VH369060	b. I want to show others that my math schoolwork is easy for	<b>®</b>	(8)	0	•	<b>(</b>	VH844872		matrices of achievemen
c. I want to look smart in comparison to the other students in my math class.	<b>©</b>	œ	0	90	Ф	VIEDARIS	c. I want to look smart in comparison to the other students in my	<b>®</b>	(8)	0	•	<b>(D)</b>	VH844873		goals items (performan
d. I want to learn as much as possible in my math class.	9	0	0	Ф	Φ	VH266054	math class.  d. I want to get better grades than most other students in my math	<b>®</b>	<b>®</b>	0	0	®	VH844882		and master
e. I want to become better in math this year.	8	Œ	0	0	0	VIDAMISA	class.							4	create indic
f. I want to understand as much as I can in my math class.	۵	ø	0	Ф	Φ	VH2#8960	38. How much does each choice on each row.	of the follow	ving statemen	ts describe yo	ou? Select one	answer	VH845110		for both performance
								Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			and master
							a. I want to learn as much as possible in	a	®	©	©	© ©	VH845117		goals based
							my math class. b. I want to master a lot			-	-				on a total o
							of new skills in my math class.	0	•	0	Φ	•	VH845114		at least 4
							<li>I want to become better in math this year.</li>	<b>(</b>	₿	0	Φ	Ð	VH845115		items, VH844882
							d. I want to understand as much as I can in my	0	<b>®</b>	0	0	<b>©</b>	VH845118		
							math class.	y = 6 = 5							and VH845114
					2100	унісив	Issue: Student fa				1222		VH844769		VH845114 were added from the 2016 pilot assessment
2017 Grade 8)  18. How much does each one answer choice on	each row.					VH26239		of the follow					VH841769	R	VH845114 were added
18. How much does each one answer choice on	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me		Issue: Student fa		ring statemen  A little bit like me	ts describe yo Somewhat like me	ou? Select one Quite a bit like me	answer  Exactly like me	VH844769	R	VH845114 were added from the 2016 pilot assessment The stem w
How much does each one answer choice on     a. I enjoy doing math.     b. I look forward to my	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH267170	Issue: Student fa  39. How much does each choice on each row.  a. I enjoy doing math.	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH844770	R	VH845114 were added from the 2016 pilot assessment The stem w revised from
How much does each one answer choice on     I enjoy doing math.     I look forward to my math class.     I am interested in the	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH26747F VH2674HF	Issue: Student fa  39. How much does each choice on each row.  a. I enjoy doing math. b. I look forward to my math class.	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me		R	VH845114 were added from the 2016 pilot assessment The stem w revised from "describe a person like
a. Lenioy doing math. b. Hook forward to my math class. c. Lam interested in the things Hearn in math. d. I think making an effort in math is	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH267170	a. I enjoy doing math. b. I look forward to my math class. c. I am interested in the things I learn in math. d. I think making an	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH844770 VH844771 VH844775	R	VH845114 were added from the 2016 pilot assessment The stem w revised fror "describe a person like you" to "describe
a. I enjoy doing math. b. I look forward to my math class. c. I am interested in the things I learn in math. d. I think making an	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH267879 VH267811 VH667811	a. I enjoy doing math. b. I look forward to my math class. c. I am interested in the things I learn in math.	of the follow  Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VE844770 VE844771	R	VH845114 were added from the 2016 pilot assessment The stem w revised fror "describe a person like you" to

Previous item 2019 item														D/A/ R/NC+	Rationale
19. How much do you en one answer choice on	joy solving eacl each row.	n of the follow	ving types of n	nath problems	? Select	VH267498	40. How much do you enjoy each of the following types of math activities? Select one answer choice on each row.							R	The stem
	Enjoy not at all	Enjoy a little bit	Enjoy somewhat	Enjoy quite	Enjoy a lot			Enjoy not at	Enjoy a little bit	Enjoy somewhat	Enjoy quite a bit	Enjoy a lot			wording was revised to
Addition, subtraction, multiplication, and division	<b>®</b>	(8)	0	•	<b>(D)</b>	VH267499	a. Addition, subtraction, multiplication, and division	<b>®</b>	(B)	©	Φ	<b>©</b>	VH844744		remove the
b. Finding areas of shapes and figures	<b>®</b>	•	0	0	<b>©</b>	VH267501	b. Finding areas of shapes and figures	Φ	<b>®</b>	0	•	<b>(</b>	VH844745		word
c. Solving for probabilities and events (for example, card, coin, marble, and spinner problems)	0	•	Ø	0	<b>©</b>	VH267502	c. Solving for probabilities and events (for example, card, coin, marble, and spinner problems)	<b>®</b>	(8)	0	Φ	•	VH844746		"solving" as per ADC feedback that
d. Solving equations or simplifying expressions	•	•	0	0	Ð	VH267503	d. Solving equations or simplifying expressions	0	(1)	0	0	<b>(</b>	VH844750		the stem did
e. Constructing and building different types of graphs (for example, bar graph, line graph, or box and whisker plots)	0	•	Ø	Φ	Œ	VH267504	e. Constructing and building different types of graphs (for example, bar graph, line graph, or box and whisker plots)	0	(8)	0	Φ	•	VH844748		not match rows E and F in the
f. Working with geometric figures like rectangles and squares	Ø	(8)	Ø	Φ	<b>©</b>	VH267505	f. Working with geometric figures like rectangles and squares	Φ	•	0	Φ	•	VH844749		previous phrasing.
															Additionally, "problems" was replaced with "activities" to better match the sub-item content. This revision was made based on coglab data gathered
															on this item

2019 Op	perational Grade 8 Mathematics Student		
Previous item	2019 item	D/A R/N	=
20. How often do you play digital games (for example, apps, video games, or computer games) outside of school that involve math?	35. How often do you play digital games (for example, apps, video games, or computer games) outside of school that involve math?	VH460329 NC	N/A
Never	Never		
About once or twice a year	About once or twice a year		
About once or twice a month	About once or twice a month		
About once or twice a month     About once or twice a week	About once or twice a week		
Every day or almost every day	Every day or almost every day		
(2017 Grade 8)			
	Issue: Resources for Learning and Instruction		
21. How often do you use a computer, tablet, smartphone, or gaming console outside of school to play educational games that involve math?	N/A	D	This item was dropped
Never			based on
About once or twice a year			
About once or twice a month			NCES's review
About once or twice a week			of
Every day or almost every day			technology-
			use items.
(2017 Grade 8)			
22. How often do you use a computer, tablet, smartphone, or gaming console outside of school to play popular games that involve math?	N/A	D	This item was dropped
Never			
About once or twice a year			based on
About once or twice a year     About once or twice a month			NCES's review
About once or twice a week			
Every day or almost every day			of
Divily day of almost citety day			technology-
(2017 Grade 8)			use items.
VI	1446923	VH460923 NC	N/A
26. Have you ever participated in a math study group outside of school?	33. Have you ever participated in a math study group outside of school?	110	14,71
① No	① No		
(2017 Grade 8)	Issue: Student factors		
VIB	449925	VH460925 NC	N/A
27. Over the past seven days, how many days have you participated in a math study	34. Over the past seven days, how many days have you participated in a math study	INC	IN/A
group outside of school? Enter the number of days.	group outside of school? Enter the number of days.		
(2017 Curds 0)	Issue: Student factors		
(2017 Grade 8)			

2019 Operational Grade 8 Mathematics Student								
Previous item	2019 item	D/A/ Rationale R/NC+						
28. Have you ever participated in a math study group at school?  ① Yes ① No  (2017 Grade 8)	N/A	D This item was dropped based on the ADC's recommenda ion.						
29. Over the past seven days, how many days have you participated in a math study group at school? Enter the number of days.  (2017 Grade 8)	N/A	D This item was dropped based on the ADC's recommenda ion.						

## **Appendix K-1ag: Operational Grade 8 Mathematics**

			VH266769
22.	Wł	nat math class are you taking this year? Select one or more answer choices.	
	<b>(A)</b>	Eighth-grade math	
	$^{\odot}$	General eighth-grade math	
	0	Algebra I course	
	0	First year of a two-year algebra course	
	(E)	Second year of a two-year algebra course	
	Ð	Algebra I (one-year course)	
	<b>©</b>	Algebra II	
	$\oplus$	Geometry	
	0	Other	
			VH240046
23.	Wł	nat math class do you expect to take next year?	
	<b>(A)</b>	Geometry	
	®	Algebra II	
	0	Algebra I (one-year course)	
	<b>(</b>	First year of a two-year Algebra I course	
	(E)	Second year of a two-year Algebra I course	
	Ð	Introduction to algebra or pre-algebra	
	<b>©</b>	Basic or general math	
	$\oplus$	Business or consumer math	
	Ф	Other math class	
	О	I don't know.	
			VH350115
24.		school this year, how often have you been asked to write long answers (several atences or paragraphs) to questions on tests or assignments that involved math?	
	$\bigcirc$	Never	
	$^{ ext{                                  $	Once	
	0	Two or three times	
	<b>(</b>	Four or five times	

More than five times

**25.** In your math class this year, how often have you used the following types of calculators? Select **one** answer choice on each row.

	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a. Basic calculator	A	®	0	0	(Ē)	VH266809
b. Graphing calculator	(A)	B	0	0	Œ	VH266810

**26.** This school year, how often did the following things happen in your math class? Select **one** answer choice on each row.

		Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
con digi us l thro	teacher used nputers or other ital devices to show how to work ough math blems.	<b>®</b>	<b>®</b>	0	•	©.	VH267416
1	sed the Internet for math work.	(A)	B	0	0	Ē	VH267417
con	teacher used nputers or other ital devices when ching math to my ss.	<b>@</b>	<b>®</b>	0	Φ	©.	VH588077
to to to oth	teacher required us use computers or the digital devices to implete math ignments.	0	<b>®</b>	0	Θ	©	VH267419

- **27.** In this school year, how often have you used a computer or other digital device (excluding handheld calculators) to look online for resources for help with your math assignments?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

- **28.** How often do you use math in everyday life **outside of school**?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

**29.** How often do you participate in each of the following activities **outside of school**? Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Talk about math problems with your friends	(A)	®	0	0	©	VH268946
b. Program computers	A	®	0	0	(Ē)	VH268949
c. Play an instrument and read music	<b>(A)</b>	B	0	0	Ē	VH268961
d. Go to websites for help with your math homework	<b>(A)</b>	®	0	0	©	VH268962

,	V٢	133	62	3

How often do you receive help or tutoring with math <b>outside of school or after school</b> ?
Never

- About once or twice a year
- About once or twice a month
- About once or twice a week
- © Every day or almost every day

VH336085

31.	Have you	ever he	lped your	friends	with	their	math	homewo	ork
-----	----------	---------	-----------	---------	------	-------	------	--------	-----

- A Yes
- No

<b>32.</b>	Over the past seven of	lays, how m	any days	have you l	helped	your frien	ds with	their
	math homework? En	ter the num	ber of day	7S.				

V	H4	60	02
v	114	υu	フム

			V11400923
33.	Ha	ve you ever participated in a math study group outside of school?	
	$\bigcirc$	Yes	
	®	No	
34.		er the past seven days, how many days have you participated in a math study up <b>outside of school</b> ? Enter the number of days.	VH460925
35.		w often do you play digital games (for example, apps, video games, or computer nes) <b>outside of school</b> that involve math?	VH460329
	<b>(A)</b>	Never	
	®	About once or twice a year	
	0	About once or twice a month	
	<b>(</b>	About once or twice a week	
	Œ	Every day or almost every day	

**36.** Thinking about math, do you think that you would be able to do each of the following? Do not actually solve the problems. Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	List all of the different possible outcomes when a coin is flipped three times	0	®	0	0	Œ	VH460382
b.	Create an expression that represents the average number of miles you run in a week if you run 100 miles in w weeks	(4)	<b>®</b>	0	Φ	Œ	VH460383
c.	Determine a 20 percent tip of a 67-dollar restaurant dinner bill	(4)	®	0	0	©	VH267679
d.	Find the amount of carpet needed to cover a rectangular floor if you know its length and width	(4)	®	0	0	Œ	VH267682
e.	Give an example to show that a math statement is false	(A)	B	0	0	Œ	VH460399
f.	Explain to your classmate how you solved a math problem	<b>(A)</b>	®	0	0	Œ	VH460910
g.	Use correct mathematical words and symbols when showing your work	<b>(A)</b>	®	©	(1)	Œ	VH460902

**37.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I want other students to think I am good at math.	<b>(A)</b>	®	0	0	©	VH844871
b.	I want to show others that my math schoolwork is easy for me.	(9)	®	0	0	©	VH844872
c.	I want to look smart in comparison to the other students in my math class.	(9)	®	0	Θ	©	VH844873
d.	I want to get better grades than most other students in my math class.	(4)	®	0	0	©	VH844882

**38.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I want to learn as much as possible in my math class.	(A)	®	0	0	Œ	VH845117
b.	I want to master a lot of new skills in my math class.	(A)	®	0	0	Œ	VH845114
c.	I want to become better in math this year.	(4)	®	0	0	Œ	VH845115
d.	I want to understand as much as I can in my math class.	(4)	®	0	0	Œ	VH845118

**39.** How much does each of the following statements describe you? Select **one** answer choice on each row.

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a. I enjoy doing math.	A	®	©	0	(Ē)	VH844770
b. I look forward to my math class.	(A)	®	0	0	Œ	VH844771
c. I am interested in the things I learn in math.	(A)	®	0	0	©	VH844775
d. I think making an effort in math is worthwhile.	(A)	®	0	0	©	VH844772
e. I think math will help me even when I am not in school.	(A)	®	0	0	©.	VH844777
f. I think it is important to do well in math.	(A)	®	0	0	Œ	VH844774

**40.** How much do you enjoy each of the following types of math activities? Select **one** answer choice on each row.

		Enjoy not at all	Enjoy a little bit	Enjoy somewhat	Enjoy quite a bit	Enjoy a lot	
a.	Addition, subtraction, multiplication, and division	<b>(</b> A)	®	0	0	Œ	VH844744
b.	Finding areas of shapes and figures	<b>(A)</b>	B	0	0	Œ	VH844745
c.	Solving for probabilities and events (for example, card, coin, marble, and spinner problems)	(9)	®	0	Θ	<b>©</b>	VH844746
d.	Solving equations or simplifying expressions	(4)	®	0	0	Œ	VH844750
e.	Constructing and building different types of graphs (for example, bar graph, line graph, or box and whisker plots)	(4)	®	0	Φ	(L)	VH844748
f.	Working with geometric figures like rectangles and squares	<b>(A)</b>	®	0	0	©.	VH844749

## **Appendix K-1ah: Summary of Changes Pilot Grade 8 Mathematics**

Previous item	2019 item		D/A/ R/NC+	Rationale
25. What math class are you taking this year? Select one or more answer choices.  © Eighth-grade math © General eighth-grade math © Algebra I course © First year of a two-year algebra course © Second year of a two-year algebra course © Algebra I (one-year course) © Algebra II © Geometry © Other	8. What math class are you taking this year? Select one or more answer choices.  © Eighth-grade math © Introduction to algebra or pre-algebra © Algebra I © Geometry © Algebra II © Other math class. Please specify:	YBINGEL	R	This item's response options were revised based on cognitive interviews and as recommended by NCES.
(2017 Grade 8)	Issue: Organization of Instruction	_		
26. What math class do you expect to take next year?	9. What math class do you expect to take next year?  © Basic or general math © Introduction to algebra or pre-algebra © Algebra I © Geometry © Algebra II © Other math class. Please specify: © I don't know.  Issue: Organization of Instruction	VIATIONT	R	This item's response options were revised based on cognitive interviews and as recommende d by NCES.
(2017 Grade 8)  27. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved math?  © Never  © Once  © Two or three times  © Four or five times  © More than five times	4. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved math?  Never  Once  Two or three times  Four or five times  More than five times	VHSSOLIS	NC	N/A

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

2019 Pilo	ot Grade 8 Mathematics Studer	nt	
Previous item	2019 item	D/A/ R/NC+	Rationale
28. For school this year, how often do you work in pairs or small groups to talk about something that you have done in math?  Never  About once or twice a year  About once or twice a month  Every day or almost every day  (2017 Grade 8)	N/A	D	This item was dropped based on the ADC's recommendat ion.
29. How often do you use a computer or other digital device (excluding handheld calculators) for math at school?  © Never  Description About once or twice a year  About once or twice a month  Description About once or twice a week  Description Every day or almost every day  (2017 Grade 8)	N/A	D	This item was dropped based on NCES's review of technology-use items.
30. How often do you receive help or tutoring with math outside of school or after school?  Never  About once or twice a year  About once or twice a month  Every day or almost every day	N/A	D	This item was dropped in place of keeping VH853724, as per similar recommendat ions made for Reading based on pretesting and to ensure consistency across
(2017 Grade 8)			across subjects.

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

					2019	) Pilo	ot Grade 8 Mat	hemat	ics Stu	dent					
Previous item							2019 item							D/A/ R/NC+	Rationale
31. In your math class thi calculators? Select on	is year, how of e answer choi	ten have you ce on each rov	used the follow.	wing types of		VH200818	19. In your math class thi calculators? Select on	s year, how of e answer choice	ten have you ce on each rov	used the follow.	wing types of		VIIS82460	R	Sub-item "a" was revised
	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			to give examples of
Basic calculator     B. Graphing calculator	Ø	(B)	0	<b>®</b>	Φ	VH266610	Basic calculator (for example, four function or scientific)	0	Φ	0	0	Φ	VH853523		what is meant
(2017 Crade 9)							b. Graphing calculator	<b>.</b>	<b>(D)</b>	©	0	Ð	VFC266816		by a basic calculator.
(2017 Grade 8)  32. This school year, how one answer choice on	often did the f	ollowing thin	gs happen in yo	our math class	? Select	VIBS99166	Issue: Resources 20. This school year, how one answer choice on	often did the f				s? Select	VIH82471	R	Previous sub-
	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			items "a" and "c" were
My teacher used computers or other digital devices to show us how to work through math problems.	6	•	0	0	θ	VID67416	a. My teacher used computers or other digital devices to show us how to work through math problems.	Φ	(3)	0	Ф	Φ	V34267410		revised to focus more on assessing
<ul> <li>I used the Internet for my math work.</li> </ul>	<b>®</b>	•	0	0	Ф	VH267417	b. I used the Internet for my math work.	<b>®</b>	Φ	0	Ф	Ф	VH267417		what the students are
<li>c. My teacher used computers or other digital devices when teaching math to my class.</li>	Φ	Ф	0	6	Φ	VH588077	c. My teacher used computers or other digital devices to go on websites or use apps when teaching math	•	•	0	Ф	Ф	VH810476		utilizing the technology
d. My teacher required us to use computers or other digital devices to complete math assignments.	Ф	•	۵	۵	Φ	V11267419	to my class.  d. My teacher required us to use computers or other digital devices to	8	•	0	0	θ	VH810427		for. These are current sub-
(2017 Crade 9)							go on websites or use apps to complete math assignments.								items "c" and "d".
(2017 Grade 8)						1 martine	Issue: Resources	for Lear	ning and	Instruct	on				
33. In this school year, how (excluding handheld ca    Never   About once or twice   About once or twice   About once or twice   Every day or almos	e a year e a month e a week				e	VID36036	N/A							D	This item was dropped based on NCES's review of technology-
(2017 Grade 8)															use items.

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

					2019	Pilo	ot Grade 8 Mat	hemat	tics Stu	dent					
Previous item							2019 item							D/A/ R/NC+	Rationale
34. In this school year, how oft (excluding handheld calcul math assignments?	lators) to lo year month week	ou used a con ook online fo	nputer or othe	r digital devic	ere ur	VIR36057	10. In this school year, how your math assignments  Never  About once or twice  About once or twice  Every day or almost	e a year e a month e a week	you looked onl	line for resour	ces for help w	vith	V8840512	R	The item stem was revised.
(2017 Grade 8)							Issue: Resources	for lear	ning and	instructi	on				
35. In this school year, how of (excluding handheld calcul  Never  Once  Two or three times  Four or five times  More than five times  (2017 Grade 8)					ce	VH47207	N/A							D	This item was dropped based on NCES's review of technology-use items.
36. How often do you use math  Never  About once or twice a you have a representation of twice and twice are representation of twice are representation of twice and twice are representation of twice are representation of twice are representation of twice and twice are representation of twice are representation of twice and twice are representation of twice and twice are representation of twice are representation of twice and twice are representation of twi	year month week	lay life outsid	de of school?			VIO8036	1. How often do you use m  Never  About once or twice  About once or twice  About once or twice  Every day or almost	a year a month a week every day					VH268936	NC	N/A
37. How often do you particip school? Select one answer	oate in each	of the follow	ving activities	outside of		VH589204	Issue: Resources  18. How often do you part school? Select one ans	ticipate in ea	ch of the follow				VII882452	R	Sub-item "b"
		About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			was revised.
a. Talk about math problems with your friends	0	<b>®</b>	0	0	©	VH266946	Talk about math     problems with your     triends	0	year (D)	ω .	Ф	©	VH268986		
b. Program computers	<b>®</b>	•	0	0	0	VH268949	b. Write a computer			-			VH858.171		
c. Play an instrument and read music	0	0	0	0	0	VH268961	program	0	0	0	•	0	VH858171		
d. Go to websites for help with your math homework	Ø	Φ	0	0	Ф	V212669902	c. Play an instrument and read music d. Go to websites for help with your math	9	<b>®</b>	9	9	9	VH268901		
(2017 Grade 8)							Issue: Resources	for Lear	ning and	I Instruct	ion				

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

<b>2019</b> Pilo	t Grade 8 Mathematics Student			
Previous item	2019 item		D/A/ R/NC+	Rationale
38. Have you ever helped your friends with their math homework?  © Yes  © No	3. Have you ever helped your friends with their math homework?  © Yes  © No	VHXIOUS	NC	N/A
(2017 Grade 8)	Issue: Resources for Learning and Instruction			
39. Over the past seven days, how many days have you helped your friends with their math homework? Enter the number of days.	Over the past seven days, how many days have you helped your friends with their math homework? Enter the number of days.	VIOLANT	NC	N/A
(2017 Grade 8)	Issue: Resources for Learning and Instruction			

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

### 2019 Pilot Grade 8 Mathematics Student

2019 item

### Previous item

40. Thinking about math, do you think that you would be able to do each of the following? Do not actually solve the problems. Select one answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Estimate the weight of 5 apples using pounds (lbs.)	Φ	0	0	0	Ф	VH267674
b.	Divide 42 stickers among 6 students	0	Φ	0	0	Φ	VH617317
¢.	Determine a 20 percent tip of a 67-dollar restaurant dinner bill	9	Ф	0	0	Φ	VH267679
d.	Describe the properties shared by every isosceles right triangle	Θ	0	0	0	Ф	VH267681
e.	Find the amount of carpet needed to cover a rectangular floor if you know its length and width	0	Ф	0	Θ	θ	V1(24-7652)
f.	Know when to take a turkey out of the oven if it goes in at 10:00 A.M. and it takes 3 hours and 45 minutes to cook	•	Ð	9	Φ	Φ	VH267683

23. Thinking about math, do you think that you would be able to do each of the following? Do not actually solve the problems. Select one answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Create a bar graph to represent the number of desks, chairs, and tables in your classroom	0	Ф	0	9	Θ	WI SECURITY
Ь.	Use a box plot to represent the height, in inches, of all of the students in your class	0	0	0	0	Ð	VIIMAISS
Ċ.	Determine the probability of picking a blue marble without looking if you know the number of marbles of each color in a bag	0	Φ	0	Ф	Ф	VHMIDAT
d.	List all of the different possible outcomes when a coin is flipped three times	0	0	0	0	0	VIIIestis2

12. Thinking about math, do you think that you would be able to do each of the following? Do not actually solve the problems. Select one answer choice on each row.

	I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
<ul> <li>Find the amount of carpet needed to cover a rectangular floor if you know its length and width</li> </ul>	8	®	0	Φ	•	VH26768
b. Determine a 20% tip of a \$55 restaurant dinner bill	8	(8)	0	0	•	VH85369
c. List all of the different possible outcomes when a coin is flipped three times	•	®	0	0	•	VH85369
d. Determine the likely number of red faces a cube has if the red face lands up 130 out of 400 times the cube is rolled. The 6 faces of the cube are painted red, yellow, or blue.	8	(8)	0	<b>©</b>	Θ	VH85368
e. Create an expression that represents the average number of miles you run in a week if you run 100 miles in w weeks	•	•	0	0	Φ	VHBS369
f. Calculate how many cats a pet store has if the ratio of cats to dogs is 5 to 4, and the total number of cats and dogs the store has is 27	•	•	0	0	•	VH85368
g. Write an equation with a variable to solve a problem (for example, if pizza costs \$2 per slice, then x number of slices can be bought for \$16)	•	•	0	Θ	Φ	VH85371
h. Find the total sum of the interior angles of a pentagon with 5 equal sides	•	®	0	0	Œ	VH85371

246

D/A/

R/NC+

R

Rationale

Current sub-

item "b" was revised. Current subitems "d", "f", "g", and "h"

administered in coglabs and retained for pilot.

were

**Issue:** Student factors

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item							2019 item							D/A/ R/NC+	Rationale
24. Thinking about math following? Do not act						VH613511									
	I definitely can't	I probably can't	Maybe	I probably can	I definitely can										
Create an expression that represents the average number of miles you run in a week if you run 100 miles in w weeks	60	<b>®</b>	0	ө	Φ	V15463363									
b. Create an expression to show how old you will be in n years if you are 8 years old today	∞	Œ	0	0	Φ	VES-1603166									
c. Create an expression that shows the number of wheels on n wagons if each wagon has 4 wheels	<b>®</b>	Ф	0	Ф	9	VIII46G359									
d. Explain how you know the number of books you can buy if you know the price of each book and you have \$35	<b>(35)</b>	Φ	Ф	Ф	θ	V15460391									
	of the followin	ng statements	describe a pe	rson like you	Select	Vicinos	15. How much does each	of the follow	ing statemen	rs describe vo	u? Select one	answer	Visituis	R	The previou
2017 Grade 8) 41. How much does each one answer choice on	each row.	A little bit	Somewhat	Quite a bit	Exactly like		15. How much does each choice on each row.	Not at all	A little bit	Somewhat	Quite a bit	Exactly like	VISSIMA	R	matrix was
41. How much does each one answer choice on  a. I want other students to think I am good at	each row.						a. I want to learn as much as possible	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me		R	matrix was separated into two
41. How much does each one answer choice on  a. I want other students	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me		a. I want to learn as much as possible about math in my class. b. I want to master a lot	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VVII.53957	R	matrix was separated into two matrices of
41. How much does each one answer choice on answer choice on a. I want other students to think I am good at math. b. I want to show others that my math schoolwork is easy for me. c. I want to look smart in comparison to the	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VEDMORA	a. I want to learn as much as possible about math in my class. b. I want to master a lot of new math skills in my class. c. J want to become a better math student	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me		R	matrix was separated into two matrices of achievemer goals items
41. How much does each one answer choice on  a. I want other students to think I am good at math.  b. I want to show others that my math schoolwork is easy for me.  c. I want to look smart in comparison to the other students in my math class.  d. I want to learn as much as possible in	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VIII269050	a. I want to learn as much as possible about math in my class. b. I want to master a lot of new math skills in my class. c. I want to become a better math student this year. d. I want to understand as much as I can in my	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VF883927 VF6834mi	R	matrix was separated into two matrices of achievemer goals items (performan and master
41. How much does each one answer choice on  a. I want other students to think I am good at math. b. I want to show others that my math schoolwork is easy for me. c. I want to look smart in comparison to the other students in my math class. d. I want to learn as much as possible in my math class. e. I want to become better in math this	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VIII269050	a. I want to learn as much as possible about math in my class. b. I want to master a lot of new math skills in my class. c. I want to become a better math student this year. d. I want to understand	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VVHS53927 VVHS53927 VVHS53949	R	matrix was separated into two matrices of achievement goals items (performant and master In order to create indicates)
41. How much does each one answer choice on answer choice on the control of the c	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VIII269050	a. I want to learn as much as possible about math in my class. b. I want to master a lot of new math skills in my class. c. I want to become a better math student this year. d. I want to understand as much as I can in my	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VVHS53927 VVHS53927 VVHS53949	R	separated into two matrices of achievemer goals items (performan and master

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item							2019 item	D/A/ R/NC+	Rationale						
17. How much does each of the following statements describe you? Select one answer choice on each row.															and VH845134
								Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			were added
							a. I want other students to think I am a good math student.	0	Ф	0	0	Θ	VM854117		from the 2016 pilot
							b. I want to show others that my math schoolwork is easy for me.	Φ	Ф	0	Ф	Ф	VZSRSAJIR		assessment The stem w
							<li>c. I want to look smart in comparison to the other students in my math class.</li>	•	(8)	0	Φ	Ф	VI1854119		revised from "describe a person like
							<li>d. I want to get better math grades than most other students in my class.</li>	Φ	•	0	Φ	Φ	V988541.54		person like you" to
42. How much does each one answer choice on		ing statements	s describe a po	erson like you	? Select	унразея	math grades than most other students in my	ctors					V388541.54 V18854028	R	you" to "describe you". The stem w
		ng statements A little bit like me	s describe a po Somewhat like me	erson like you Quite a bit like me	3 Select Exactly like		math grades than most other students in my class.  Issue: Student Fact 16. How much does each	ctors			ou? Select one		V1884028	R	you" to "describe
one answer choice on	each row.	A little bit	Somewhat	Quite a bit	Exactly like		math grades than most other students in my class.  Issue: Student Fact 16. How much does each	of the follow	ing statemen	ts describe yo	Quite a bit	answer	V1884028	R	you" to "describe you".  The stem w revised fror "describe a
one answer choice on  a. I enjoy doing math. b. I look forward to my math class.	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like	e	math grades than most other students in my class.  Issue: Student Fact  16. How much does each choice on each row.  a. I enjoy doing math. b. I look forward to my math class.	of the follow  Not at all like me	/ing statemen  A little bit like me	ts describe yo	Quite a bit like me	Exactly like	V1854028	R	you" to "describe you".  The stem w revised fror
a. I enjoy doing math. b. I look forward to my math class. c. I am interested in the things I learn in math.	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH267479	math grades than most other students in my class.  Issue: Student Factories and the students in my class.  I6. How much does each choice on each row.  a. I enjoy doing math. b. I look forward to my	of the follow  Not at all like me	A little bit like me	somewhat like me	Quite a bit like me	Exactly like	VIBSLO28	R	you" to "describe you".  The stem w revised fror "describe a person like
a. I enjoy doing math. b. I look forward to my math class. c. I am interested in the things I learn in math. d. I think making an effort in math is worthwhile.	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VH267479 VH267481	math grades than most other students in my class.  Issue: Student Fact  16. How much does each choice on each row.  a. I enjoy doing math. b. I look forward to my math class, c. I am interested in the	of the follow  Not at all like me	A little bit like me	somewhat like me	Quite a bit like me	Exactly like me	VIBS4029 VIBS4030	R	you" to "describe you".  The stem w revised fror "describe a person like you" to
a. I enjoy doing math. b. I look forward to my math class. c. I am interested in the things I learn in math. d. I think making an effort in math is	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	VIESTATO VIESTATO VIESTATO VIESTATO	math grades than most other students in my class.  Issue: Student Fact  16. How much does each choice on each row.  a. I enjoy doing math. b. I look forward to my math class. c. I am interested in the things I learn in math. d. I think making an effort in math is	of the follow  Not at all like me	A little bit like me	somewhat like me	Quite a bit like me	Exactly like me	VIES4026  VIES4020  VIES4030  VIES4034	R	you" to "describe you".  The stem w revised fror "describe a person like you" to "describe

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item							2019 item								Rationale
43. How much do you enjoy solving each of the following types of math problems? Select one answer choice on each row.							11. How much do you enjoy each of the following types of math activities? Select one answer choice on each row.							R/NC+	The stem wording was
	Enjoy not at all	Enjoy a little bit	Enjoy somewhat	Enjoy quite a bit	Enjoy a lot			Enjoy not at	Enjoy a little bit	Enjoy somewhat	Enjoy quite a bit	Enjoy a lot			revised to remove the word
a. Addition, subtraction, multiplication, and division	0	•	0	9	Θ	VH267499	Adding, subtracting, multiplying, and dividing fractions	0	Ф	0	Φ	Ф	VH810635		
<ul> <li>Finding areas of shapes and figures</li> </ul>	0	0	0	0	0	VH287501	b. Finding areas of shapes and figures	<b>®</b>	Ф	0	9	Ф	VH858661		"solving" as
c. Solving for probabilities and events (for example, card, coin, marble, and spinner problems)	0	•	0	9	θ	VH287503	c. Solving for probabilities and events (for example, card, coin, marble, and spinner problems)	0	60	Φ.	Φ	Ф	VIBS-1642		per ADC feedback tha
d. Solving equations or simplifying expressions	@	0	0	Φ	Φ	VH267503	d. Solving problems about ratios and rates (for example, if								the stem did
<ul> <li>Constructing and building different types of graphs (for example, bar graph,</li> </ul>	•	Φ	0	Ф	Ф	V#1267594	4 inches of rain fell in 16 hours, how many inches fell in 1 hour?)	0	Œ	0	Φ	Ф	VPEXS.DOM		rows E and F
line graph, or box and whisker plots)  Working with geometric figures like	9		φ	Ф	Φ	VH267505	e. Constructing and building different types of graphs (for example, a bar graph	•	Φ	0	θ	Θ	VH858674		previous
rectangles and squares		(3)				112050	or line graph)  f. Moving geometric figures from one set of points to another (for example, rotating a rectangle 90 degrees)	Φ	<b>©</b>	Ø	Φ	0	VIIsS8671		phrasing. Additionally, "problems" was replaced
(2017 Grade 8)							Issue: Student Fa	ctors							with "activities". Sub-items "d", "e" and "f" were revised.
20. How often do you play digital games (for example, apps, video games, or computer games) outside of school that involve math?							5. How often do you play digital games (for example, apps, video games, or computer games) outside of school that involve math?							NC	N/A
Never							Never								
About once or twice							About once or twice	a year							
About once or twice							About once or twice	a month							
About once or twice							About once or twice	a week							
Every day or almos	t every day						© Every day or almost	every day							
(2017 Grade 8)							Issue: Resources for Learning and Instruction								

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

2019										
Previous item	2019 item							D/A/ R/NC+	Rationale	
26. Have you ever participated in a math study group outside of school?  © Yes  © No  (2017 Grade 8)	6. Have you ever participate  Tes  No  Issue: Student fac	NC	N/A							
27. Over the past seven days, how many days have you participated in a math study group outside of school? Enter the number of days.  []  [2017 Grade 8]	7. Over the past seven days, how many days have you participated in a math study group outside of school? Enter the number of days.								N/A	
N/A	Issue: Student fac	A	This item was							
				About once or twice a month	About once or twice a week	Every day or almost every day			added in place of	
	a. Help from a teacher	<b>®</b>	(1)	0	0	Ф	VH853725		VH336233.	
	b. Help from a tutor	•	0	0	0	Φ	VH853726		This item was	
	c. Help from a family member or friend	0	(1)	0	0	(D)	VHSSV720		pretested and	
	d. Help from online resources (for example, websites or apps)	0	Œ	0	0	0	VH853719		kept in Reading, and	
	Issue: Resources for Learning and Instruction								to ensure consistency, the same decision was made for math.	
N/A	14. How useful do you find each of the following types of help to understand your math schoolwork? Select one answer choice on each row.								This item was added in	
		Not useful all	l at Some user			don't receive that type of help.			place of	
	a. Help from a teacher	0	Œ		0	0	VH853733		VH336233.	
	b. Help from a tutor c. Help from a family	0	•		0	0	VH883734		This item was	
	member or friend	0	•		0	Φ	VHNIATAN		pretested and	
	<ul> <li>d. Help from online resource (for example, websites or apps)</li> </ul>	es 🐵	Œ		0	0	V1050737		kept in Reading, and	
	<b>Issue:</b> Resources f	or Learnii	ng and I	nstructi	on				to ensure consistency,	

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item							2019 item	D/A/ R/NC+	Rationale						
	3					VIII-USD							V1892480		the same decision was made for math.
25. Thinking about math, do you think that you would be able to do each of the following! Select one answer choice on each row.							21. Thinking about math, following? Select one	do you think answer choice	on each row.	d be able to	do each of the			R	Previous subitems "a",
	I definitely can't	I probably can't	Maybe	I probably can	I definitely can			I definitely can't	I probably can't	Maybe	I probably	I definitely			"d", and "f"
a. Decide if your classmate's math work is correct	<b>®</b>	0	0	9	<b>©</b>	VINGSYS	a. Give an example to show that a math statement is false	0	<b>®</b>	0	0	θ	VI6460399		were dropped.
b. Give an example to show that a math statement is false	Φ	0	0	8	Θ	VI5460399	b. Explain to your classmate how you solved a math problem	0	<b>®</b>	0	0	θ	YIM60FI0		игорреи.
<ul> <li>Explain to your classmate how you solved a math problem</li> </ul>	0	0	9	9	θ	VH460910	c. Use correct mathematical words and symbols when	0	<b>®</b>	0	9	0	V15460902		
d. Use correct mathematical words and symbols to communicate ideas about math	0	Φ	0	0	θ	V15440900	showing your work								
e. Use correct mathematical words and symbols when showing your work	0	0	0	0	0	VH460902									
f. Use definitions of geometric shapes to support an argument	@	0	9	6	Ф	VH460912									

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

## **Appendix K-1ai: Pilot Grade 8 Mathematics**

1. How often do you use math in everyday life outside of school?	
Never	
About once or twice a year	
About once or twice a month	
About once or twice a week	
© Every day or almost every day	
<ul><li>2. Over the past seven days, how many days have you helped your friends with their math homework? Enter the number of days.</li></ul>	VH269037
<ul><li>3. Have you ever helped your friends with their math homework?</li><li> Yes</li><li> No</li></ul>	VH336085
<b>4.</b> For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved math?	VH350115
Never     Never	
® Once	
© Two or three times	
© Four or five times	
© More than five times	

5. How often do you play digital games (for example, apps, video games, or computer games) outside of school that involve math?	
Never	
About once or twice a year	
© About once or twice a month	
About once or twice a week	
© Every day or almost every day	
	VH460923
6. Have you ever participated in a math study group outside of school?	
♠ Yes	
® No	
7. Over the past seven days, how many days have you participated in a math study group <b>outside of school</b> ? Enter the number of days.	VH460925 VH810501
8. What math class are you taking this year? Select one or more answer choices.	
Introduction to algebra or pre-algebra	
© Algebra I	
© Geometry	
© Algebra II	
① Other math class. Please specify:	

V	HΩ	104	507

9.	What math	class	do you	expect to	take next	year?
----	-----------	-------	--------	-----------	-----------	-------

- Basic or general math
- ® Introduction to algebra or pre-algebra
- Algebra I
- Geometry
- Algebra II
- ① Other math class. Please specify:\_\_\_\_\_
- © I don't know.

- **10.** In this school year, how often have you looked online for resources for help with your math assignments?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

**11.** How much do you enjoy each of the following types of math activities? Select **one** answer choice on each row.

		Enjoy not at all	Enjoy a little bit	Enjoy somewhat	Enjoy quite a bit	Enjoy a lot	
a.	Adding, subtracting, multiplying, and dividing fractions	<b>®</b>	®	©	0	Œ	VH810635
b.	Finding areas of shapes and figures	(A)	B	0	0	Œ	VH853661
c.	Solving for probabilities and events (for example, card, coin, marble, and spinner problems)	(4)	<b>®</b>	0	0	©.	VH853662
d.	Solving problems about ratios and rates (for example, if 4 inches of rain fell in 16 hours, how many inches fell in 1 hour?)	(9)	<b>®</b>	0	0	©	VH853665
e.	Constructing and building different types of graphs (for example, a bar graph or line graph)	<b>®</b>	®	0	•	Œ	VH853674
f.	Moving geometric figures from one set of points to another (for example, rotating a rectangle 90 degrees)	0	<b>®</b>	0	Φ	(	VH853671

**12.** Thinking about math, do you think that you would be able to do each of the following? Do not actually solve the problems. Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
3	Find the amount of carpet needed to cover a rectangular floor if you know its length and width	0	(8)	0	Φ	Œ	VH267682
	Determine a 20% tip of a \$55 restaurant dinner bill	(4)	®	0	0	Œ	VH853690
]	List all of the different possible outcomes when a coin is flipped three times	(9)	ß	0	0	©	VH853692
] ( 2 3	Determine the likely number of red faces a cube has if the red face lands up 130 out of 400 times the cube is rolled. The 6 faces of the cube are painted red, yellow, or blue.	(9)	<b>®</b>	0	Θ	Œ	VH853683
1 4	Create an expression that represents the average number of miles you run in a week if you run 100 miles in w weeks	(4)	<b>®</b>	0	Θ	Œ	VH853693
1 1	Calculate how many cats a pet store has if the ratio of cats to dogs is 5 to 4, and the total number of cats and dogs the store has is 27	0	®	0	0	Œ	VH853685
	Write an equation with a variable to solve a problem (for example, if pizza costs \$2 per slice, then x number of slices can be bought for \$16)	(9)	®	0	0	Œ	VH853713
1	Find the total sum of the interior angles of a pentagon with 5 equal sides	(4)	®	0	0	©	VH853714

**13.** How often do you receive the following types of help with math schoolwork **outside of school or after school?** Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Help from a teacher	(A)	®	0	0	Œ	VH853725
b. Help from a tutor	(A)	®	0	0	Œ	VH853726
c. Help from a family member or friend	A	®	0	0	Œ	VH853728
d. Help from online resources (for example, websites or apps)	<b>(A)</b>	®	0	0	Œ	VH853729

VH853732

**14.** How useful do you find each of the following types of help to understand your math schoolwork? Select **one** answer choice on each row.

	Not useful at all	Somewhat useful	Very useful	I don't receive that type of help.	
a. Help from a teacher	<b>(A)</b>	®	0	0	VH853733
b. Help from a tutor	(A)	®	0	0	VH853734
c. Help from a family member or friend	<b>(A)</b>	B	0	0	VH853736
d. Help from online resources (for example, websites or apps)	<b>®</b>	®	0	0	VH853737

VH853944

**15.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I want to learn as much as possible about math in my class.	(4)	®	0	0	©.	VH853957
b.	I want to master a lot of new math skills in my class.	(A)	B	0	0	©	VH853961
c.	I want to become a better math student this year.	(A)	®	0	0	©	VH853949
d.	I want to understand as much as I can in my math class.	(9)	®	0	0	©.	VH853952

**16.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I enjoy doing math.	A	®	©	0	(Ē)	VH854029
b.	I look forward to my math class.	A	®	0	0	Œ	VH854030
c.	I am interested in the things I learn in math.	A	B	0	0	Ē	VH854034
d.	I think making an effort in math is worthwhile.	<b>(A)</b>	®	0	0	©	VH854031
e.	I think math will help me even when I am not in school.	<b>(A)</b>	®	0	0	©	VH854036
f.	I think it is important to do well in math.	A	B	0	0	Ē	VH854033

**17.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
to t	ant other students think I am a good th student.	(A)	®	0	0	©	VH854117
tha	ant to show others at my math aoolwork is easy for	(4)	®	0	Φ	©	VH854118
con	ant to look smart in nparison to the ner students in my th class.	(9)	<b>®</b>	0	Φ	©	VH854119
ma	ant to get better th grades than most er students in my ss.	<b>(</b> A)	<b>®</b>	0	•	©	VH854134

**18.** How often do you participate in each of the following activities **outside of school**? Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Talk about math problems with your friends	<b>(A)</b>	®	0	0	©.	VH268946
b. Write a computer program	<b>(A)</b>	®	0	0	Ē	VH858371
c. Play an instrument and read music	(A)	®	0	0	Ē	VH268961
d. Go to websites for help with your math homework	(A)	®	0	0	Œ	VH268962

VH882460

**19.** In your math class this year, how often have you used the following types of calculators? Select **one** answer choice on each row.

	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a. Basic calculator (for example, four function or scientific)	<b>(A)</b>	®	0	0	Œ	VH853523
b. Graphing calculator	(A)	®	0	0	Œ	VH266810

**20.** This school year, how often did the following things happen in your math class? Select **one** answer choice on each row.

	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a. My teacher used computers or other digital devices to show us how to work through math problems.	<b>(A)</b>	®	©	0	Œ	VH267416
b. I used the Internet for my math work.	(A)	®	©	0	Œ	VH267417
c. My teacher used computers or other digital devices to go on websites or use apps when teaching math to my class.	(A)	®	0	0	©.	VH810476
d. My teacher required us to use computers or other digital devices to go on websites or use apps to complete math assignments.	(A)	®	0	Φ	©.	VH810477

**21.** Thinking about math, do you think that you would be able to do each of the following? Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Give an example to show that a math statement is false	<b>(A)</b>	®	0	0	Œ	VH460399
b.	Explain to your classmate how you solved a math problem	<b>(A)</b>	®	0	0	©.	VH460910
c.	Use correct mathematical words and symbols when showing your work	<b>(A)</b>	®	0	•	©.	VH460902

## **Appendix K-1aj: Spiral Map Grade 8 Mathematics**

Accnum	Grade	Grade 8 OMB PDF Sequence Number	Number of Grade 8 booklets item appears in	Grade 8 booklets item appears in
VH350115	4, 8	04 00	1	3
VH268936	4, 8	01 00	3	1,2,3
VH460329	4, 8	05_00	3	1, 2, 3
VH854116	4, 8	17_00	1	3
VH854117	4, 8	17_01	1	3
VH854118	4, 8	17_02	1	3
VH854119	4, 8	17_03	1	3
VH854134	4, 8	17_04	1	3
VH853944	4, 8	15_00	1	3
VH853957	4, 8	15_01	1	3
VH853961	4, 8	15_02	1	3
VH853949	4, 8	15_03	1	3
VH853952	4, 8	15_04	1	3
VH854028	4, 8	16_00	1	3
VH854029	4, 8	16_01	1	3
VH854030	4, 8	16_02	1	3
VH854034	4, 8	16_03	1	3
VH854031	4, 8	16_04	1	3
VH854036	4, 8	16_05	1	3
VH854033	4, 8	16_06	1	3
VH336085	4, 8	03_00	3	1, 2, 3
VH269037	4, 8	02_00	3	1, 2, 3
VH853724	4, 8	13_00	2	1, 2
VH853725	4, 8	13_01	2	1, 2
VH853726	4, 8	13_02	2	1, 2
VH853728	4, 8	13_03	2	1, 2
VH853729	4, 8	13_04	2	1, 2

Accnum	Grade	Grade 8 OMB PDF Sequence Number	Number of Grade 8 booklets item appears in	Grade 8 booklets item appears in
VH853732	4, 8	14_00	2	1, 2
VH853733	4, 8	14_01	2	1, 2
VH853734	4, 8	 14_02	2	1, 2
VH853736	4, 8	 14_03	2	1, 2
VH853737	4, 8	 14_04	2	1, 2
VH810501	8	08_00	2	1, 2
VH810507	8	09_00	2	1, 2
VH882460	8	19_00	1	3
VH853523	8	19_01	1	3
VH266810	8	19_02	1	3
VH882471	4, 8	20_00	1	3
VH267416	8	20_01	1	3
VH267417	8	20_02	1	3
VH810476	4, 8	20_03	1	3
VH810477	4, 8	20_04	1	3
VH810512	8	10_00	1	3
VH810625	8	11_00	2	1, 2
VH810635	8	11_01	2	1, 2
VH853661	8	11_02	2	1, 2
VH853662	8	11_03	2	1, 2
VH853665	8	11_04	2	1, 2
VH853674	8	11_05	2	1, 2
VH853671	8	11_06	2	1, 2
VH853682	8	12_00	2	1, 2
VH267682	4, 8	12_01	2	1, 2
VH853690	8	12_02	2	1, 2
VH853692	8	12_03	2	1, 2
VH853683	8	12_04	2	1, 2
VH853693	8	12_05	2	1, 2

VH853685	8	12_06	2	1, 2
Accnum	Grade	Grade 8 OMB PDF Sequence Number	Number of Grade 8 booklets item appears in	Grade 8 booklets item appears in
VH853713	8	12_07	2	1, 2
VH853714	8	12_08	2	1, 2
VH882480	8	21_00	2	1, 2
VH460399	8	21_01	2	1, 2
VH460910	8	21_02	2	1, 2
VH460902	8	21_03	2	1, 2
VH882452	4, 8	18_00	1	3
VH268946	4, 8	18_01	1	3
VH858371	8	18_02	1	3
VH268961	4, 8	18_03	1	3
VH268962	4, 8	18_04	1	3
VH460923	8	06_00	3	1, 2, 3
VH460925	8	07_00	3	1, 2, 3

## Appendix K-1ak: Summary of Changes Operational Grade 12 Mathematics

Previous item								2019 item								D/A/ R/NC+	Rationale
Which courses have course more than taken in summer spart of a longer coprogramming taug	once, give the school, but I urse (such as	e most recer OO NOT ING trigonomet	nt year you t CLUDE topion ry taught in	ook it. INCI cs that were drafting clas	Only taught only taught on comput	es as	VH240819	24. Which courses have you taken from eighth grade to the present? If you have taken a course more than once, give the most recent year you took it. INCLUDE courses taken in summer school, but DO NOT INCLUDE topics that were only taught as part of a longer course (such as trigonometry taught in drafting class or computer programming taught in Algebra II). Select one answer choice on each row.								R	Sub-item "p" was dropped since "Other"
	I have never taken this course.	I took this course in or before Grade 8.	I took this course in Grade 9.	I took this course in Grade 10.	I took this course in Grade 11.	course in			I have never taken this course.	I took this course in or before Grade 8.	I took this course in Grade 9.	I took this course in Grade 10.		I took this course in Grade 12.			is not an option
a. Basic or general mathematics course	@	(8)	0	0	Θ	Ф	VH240820	a. Basic or general mathematics course	<b>®</b>	®	0	Ф	0	Ð	V11240820		preferred to be included
b. Tech-prep mathematics, business mathematics, consumer mathematics, or other applied mathematics course	0	•	0	•	θ	Θ	V14240844	b. Tech-prep mathematics, business mathematics, consumer mathematics, or other applied mathematics course	•	•	0	Ф	Φ	•	VH240844		for student operational administration.
c. Introduction to algebra or pre-algebra course	0	(8)	0	•	Θ	0	VH240822	c. Introduction to algebra or pre-algebra course	<b>®</b>	(B)	0	Ф	<b>(</b>	<b>©</b>	VH240822		
d. Algebra I course	@	<b>®</b>	0	0	0	Ð	VH240823	d. Algebra I course	<b>®</b>	®	0	0	0	Ø	VH240823		
f. Algebra II course,	(8)	•	0	0	Θ	Ð	VH240824	e. Geometry course	<b>®</b>	®	0	0	<sub>D</sub>	Ð	V14240824		
with or without trigonometry	@	•	0	•	Φ	•	VH240825	f. Algebra II course, with or without trigonometry	⊗	<b>®</b>	0	0	Φ	•	VH240825		
g. Trigonometry (as a separate course)	@	•	0	0	•	<b>©</b>	VH240826	g. Trigonometry (as a separate course)	•	®	0	0	Œ	®	VI-1240826		
h. Pre-calculus course (also called introductory analysis)	@	•	0	0	Θ	0	VH240833	h. Pre-calculus course (also called introductory analysis)	0	•	0	Φ	Φ	Φ	VH240833		
i. Integrated mathematics 1 (first year of a multi-year course) j. Integrated	<b>®</b>	•	0	0	•	•	VH240841	i. Integrated mathematics 1 (first year of a multi-year course)	9	•	0	Φ	<b>®</b>	ø	VH240841		
mathematics 2 (second year of a multi-year course)	<b>®</b>	®	0	0	•	Ð	VH240842	j. Integrated mathematics 2 (second year of a multi-year course)	0	•	Θ	Ф	Φ	•	VH240842		
k. Integrated mathematics 3 (third year of a multi-year course)	<b>®</b>	•	0	0	<b>®</b>	<b>(</b>	VH240843	k. Integrated mathematics 3 (third year of a multi-year course)	8	(8)	0	Φ	®	Ø	VH240843		
. Integrated	I have never taken this course.	I took this course in or before Grade 8.	I took this course in Grade 9.	I took this course in Grade 10.	I took this course in Grade 11.	I took this course in Grade 12.		The course	I have never taken this course.	I took this course in or before Grade 8.	I took this course in Grade 9.	I took this course in Grade 10.	I took this course in Grade 11.	I took this course in Grade 12.			
mathematics 4 (fourth year of a multi-year course)	•	(8)	0	0	•	Ð	VH240821	l. Integrated mathematics 4 (fourth year of a	©	<b>®</b>	0	•	Œ	Ð	VH240821		
n. Probability or statistics course	⊗	ூ	0	0	•	Ð	VH240836	multi-year course) m. Probability or									
. Calculus course	(8)	(B)	0	0	<b>®</b>	•	VH240829	statistics course	<b>®</b>	<b>®</b>	0	0	®	Ð	VH240836		
computer programming course (such as C++, Visual Basic, etc.)	•	<b>®</b>	0	0	Φ	Ф	VH240835	n. Calculus course o. Computer programming course (such as	<b>®</b>	® ®	0	Φ	Ф Ф	© ©	VH240829 VH240835		
<ul> <li>Other mathematics course (specify):</li> </ul>	(8)	<b>®</b>	0	0	•	Ð	VH240834	C++, Visual Basic, etc.)									1

Previous item	2019 item		D/A/ R/NC+	Rationale	
2. Are you currently enrolled in or have you taken any of the following Advanced Placement (AP®) courses? Select all that apply.  ② Yes, I am enrolled in or have taken Advanced Placement (AP) Calculus AB.  ③ Yes, I am enrolled in or have taken Advanced Placement (AP) Calculus BC.  ② Yes, I am enrolled in or have taken Advanced Placement (AP) Statistics.  ③ No, I have not taken any of the courses listed above.	25. Are you currently enrolled in or have you taken any of the following Advanced Placement (AP®) courses? Select all that apply.  ② Yes, I am enrolled in or have taken Advanced Placement (AP) Calculus AB.  ③ Yes, I am enrolled in or have taken Advanced Placement (AP) Calculus BC.  ② Yes, I am enrolled in or have taken Advanced Placement (AP) Statistics.  ③ No, I have not taken any of the courses listed above.  Issue: Organization of Instruction	VH250444	NC	N/A	
3. Are you currently enrolled in or have you taken an International Baccalaureate® (IB) mathematics course?  ① Yes ① No  (2018 Grade 12)	26. Are you currently enrolled in or have you taken an International Baccalaureate® (IB) mathematics course?  ① Yes ① No  Issue: Organization of Instruction	VID-2008	NC	N/A	
4. Are you currently enrolled in or have you taken any online mathematics courses for high school or college credit?  © Yes © No  (2018 Grade 12)	27. Are you currently enrolled in or have you taken any online mathematics courses for high school or college credit?  ① Yes ① No  Issue: Organization of Instruction	VH240049	NC	N/A	
5. Was there a mathematics course that you would have liked to have taken this school year but did not take?  ② Yes, but my school does not offer the course.  ③ Yes, but the course was full.  ③ Yes, but I did not have the necessary prerequisites.  ④ Yes, but my schedule was full.  ⑤ No, there was no other course that I wanted to take.	28. Was there a mathematics course that you would have liked to have taken this school year but did not take?  ① Yes, but my school does not offer the course.  ① Yes, but the course was full.  ② Yes, but I did not have the necessary prerequisites.  ② Yes, but my schedule was full.  ① No, there was no other course that I wanted to take.  Issue: Organization of Instruction	2,0050	NC	N/A	

revious item							2019 item							D/A/ R/NC+	Rationale
Please indicate how mu statements. Select one a	ch you DISA answer choic	AGREE or AG ce on each row	REE with the	following		VH240763	N/A							D	This item was
Z	Stron	igly Di	sagree	Agree	Strongly agree										dropped in lieu of
<ul> <li>Math is one of my favorit subjects.</li> </ul>	te ®		(8)	0	0	VH240768									keeping item
<ul> <li>I take mathematics because it will help me in the future.</li> </ul>	1 @		0	0	•	VH240770									VH731852.
<ul> <li>I take mathematics to me my high school graduatio requirements.</li> </ul>	eet on ©		(8)	0	•	VH240767									
2018 Grade 12)															
7. How much does each or one answer choice on ea		ing statement	s describe a po	erson like you	ı? Select	VH267478	47. How much does each choice on each row.	of the follow	ving statement	ts describe you	u? Select one	answer	VH731852	R	The version of
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			the item that uses
a. I enjoy doing math.	0	(5)	0	0	Ð	VH267479	a. I enjoy doing math.	(A)	•	0	Ф	Φ	VH731853		"describe
b. I look forward to my math class.	0	•	0	Φ	(D)	VH267481	<ul> <li>I look forward to my math class.</li> </ul>	<b>®</b>	•	0	0	Θ	VH731854		you" in the
c. I am interested in the things I learn in math.	⊗	•	0	•	•	VH617324	c. I am interested in the things I learn in math.	<b>®</b>	<b>®</b>	9	0	Θ	VH731858		1 -
d. I think making an effort in math is worthwhile.	<b>®</b>	•	0	Θ	Φ	VH267485	d. I think making an effort in math is worthwhile.	Ø	®	0	0	•	VH731855		stem was retained for
e. I think math will help me even when I am not in school.	<b>®</b>	•	0	0	•	VH267486	e. I think math will help me even when I am	<b>®</b>	•	0	•	•	VH731860		operational.
f. I think it is important to do well in math.	0	(1)	0	0	<b>(D)</b>	VH267487	not in school.  f. I think it is important	<b>®</b>	<b>®</b>	0	Φ	Φ	VH731857		
g. I take mathematics because it will help me in the future.	0	•	0	0	<b>©</b>	VH651872	g. I take mathematics because it will help	@ @	•	0	0	0	VH731859		
h. I take mathematics to meet my high school graduation requirements.	<b>®</b>	(1)	O	0	<b>©</b>	VH651874	h. I take mathematics to meet my high school	<b>®</b>	•	0	Φ	Φ	VH731856		
How much does each of choice on each row.	of the follow	ring statemen	ts describe yo	ou? Select one	answer	VH710452	graduation requirements.								
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like										
a. I enjoy doing math.	@	0	@	on on	(D)	V91/31853									
b. I look forward to my math class.	@	00	0	Ф	Ф	VH731854									
c. I am interested in the things I learn in math.	@	0	0	0	(D)	VEG31858									
d. I think making an effort in math is worthwhile.	Ø	00	0	Φ	Ф	VH731855									
e. I think math will help me even when I am not in school.	•	00	0	0	Φ	V2473 (840)									
f, I think it is important to do well in math.	0	0	0	0	(D)	V2.031897									
g. I take mathematics because it will help me in the future.	<b>®</b>	•	Ø	0	Ф	VH751869									
h. I take mathematics to meet my high school graduation	@	Φ	0	Φ	0	VH2731856									

	2019 item	D/A/ R/NC+	Rationale
VIO	20051 Y1E48		N/A
Are you currently taking a mathematics course?	29. Are you currently taking a mathematics course?	140	11/7
① No	① No		
2018 Grade 12)	Issue: Organization of Instruction		
<u> </u>	159015 VHD9	NC NC	N/A
0. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved math?	30. For school this year, how often have you been asked to write long answers (several sentences or paragraphs) to questions on tests or assignments that involved math?	INC	IN/A
Never	Never		
Once	® Once		
© Two or three times	Two or three times		
© Four or five times	Four or five times		
More than five times	More than five times		
2018 Grade 12)	Issue: Organization of Instruction		
Market and the second s	N/A	D	This item was
11. For school this year, how often do you work in pairs or small groups to talk about something that you have done in math?			dropped to
Never			
About once or twice a year			keep in line
About once or twice a year     About once or twice a month			with the
About once or twice a month     About once or twice a week			ADC's
Every day or almost every day			1
2 Every day of different value			recommenda
			ion for grade
2018 Grade 12)			4 and 8.
VH2	N/A	D	This item was
2. How often do you use a computer or other digital device (excluding handheld	IN/A	٦ ا	
calculators) for math at school?			dropped to
Never			keep in line
About once or twice a year			with NCES's
About once or twice a month			
About once or twice a week			review of
© Every day or almost every day			technology-
			use items for
2018 Grade 12)			grades 4 and
			8.

Previous item							2019 item	D/A/ R/NC+	Rationale						
13. How often do you r	racaiva kaln av t	utoring with	moth outside e	f cebaal ar af	tor	VH336233	42. How often do you re school?	NC	N/A						
school?	eceive neip of ti	atomig with	math outside o	i school of at	tei		Never								
Never							About once or tv	vice a year							
About once or t	wice a year						About once or tv	vice a month							
About once or t	wice a month						About once or tv	vice a week							
About once or t	wice a week						© Every day or alm	ost every day							
© Every day or alr	nost every day														
(2018 Grade 1	2)						Issue: Resource	es for Leai	rning an	d Instruc	tion				
14. In your math class t calculators? Select o	his year, how of one answer choice	ten have you ce on each rov	used the follow.	wing types of		VH266808	31. In your math class calculators? Select	this year, how of one answer choice	ften have you ce on each ro	used the follow.	ving types of		VH266808	NC	N/A
	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	f	-	
		<b>®</b>	0	0	Œ	VH266809	a. Basic calculator	<b>®</b>	•	0	0	•	VH266809		
a. Basic calculator b. Graphing calculator	<b>®</b>		0	0	<b>(D)</b>	VH266810	b. Graphing calculator	00	<b>(D)</b>	0	0	(D)	VH266810	I	1

Previous item							2019 item							D/A/ R/NC+	Rationale
15. This school year, how one answer choice on		ollowing thing	gs happen in yo	our math class	? Select	VH589166	32. This school year, how often did the following things happen in your math class? Select one answer choice on each row.								N/A
	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all o	f		Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time			
My teacher used computers or other digital devices to show us how to work through math problems.	0	<b>®</b>	0	Ф	Φ	VH267416	a. My teacher used computers or other digital devices to show us how to work through math problems.	0	(5)	0	Ф	Φ	VH267416		
b. I used the Internet for my math work.	<b>®</b>	<b>®</b>	0	0	•	VH267417	b. I used the Internet for my math work.	⊗	<b>®</b>	0	0	0	VH267417		
c. My teacher used computers or other digital devices when teaching math to my class.	0	<b>®</b>	0	Φ	•	VH588077	c. My teacher used computers or other digital devices when teaching math to my class.	0	(5)	0	Θ	Φ	VH588077		
d. My teacher required us to use computers or other digital devices to complete math assignments.	<b>®</b>	®	0	0	Φ	VH267419	d. My teacher required us to use computers or other digital devices to complete math assignments.	•	•	0	0	•	VH267419		
6. In this school year, how (excluding handheld cal  Never  About once or twice  About once or twice  Every day or almost  2018 Grade 12)	e a year e a month e a week every day				e	VH356036	N/A							D	This item w dropped to keep in line with NCES's review of technology use items for grades 4 and 8.
17. In this school year, how (excluding handheld eal math assignments?  ② Never ③ About once or twice ③ About once or twice ⑤ About once or twice ⑤ Every day or almost	e a year e a month e a week					VII34637	33. In this school year, how of (excluding handheld calcul math assignments?  Never  About once or twice a part of the control	ators) to lool year month week					VIE38037	NC	N/A
2018 Grade 12)							Issue: Resources fo	or Learn	ing and	Instruct	ion				

				2	019 O	pera	tional Grade 12	Math	ematio	cs Stud	lent				
Previous item						•	2019 item							D/A/ R/NC+	Rationale
18. In this school year, how (excluding handheld cal				digital device		VH617207	N/A								This item was dropped to
Never															keep in line
Once															· ·
© Two or three times															with NCES's
Four or five times															review of
More than five time	S														technology-
(2018 Grade 12)															use items for grades 4 and 8.
19. How often do you use i	nath in ever	vdav life outsic	de of school?	9		VH268936	39. How often do you use r	nath in ever	yday life outsi	de of school?			VH268936	NC	N/A
Never															
About once or twice	e a year						About once or twice	e a vear							
About once or twice							About once or twice								
About once or twice	e a week						About once or twice								
Every day or almos	t every day						<ul> <li>Every day or almost</li> </ul>	every day							
(2018 Grade 12)  20. How often do you par school? Select one ans			wing activities	outside of		VH589204	Issue: Resources 41. How often do you part school? Select one ans	icipate in ea	ch of the follow				VH589204	NC	N/A
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			
Talk about math     problems with your     friends	0	•	0	Φ	<b>©</b>	VH268946	Talk about math     problems with your     friends	<b>(A)</b>	8	0	Φ	©	VH268946		
b. Program computers c. Play an instrument	0	(1)	0	0	<b>(</b>	VH268949	b. Program computers	<b>®</b>	•	0	•	•	VH268949		
and read music  d. Go to websites for	0	<b>®</b>	0	0	<b>(D)</b>	VH268961	c. Play an instrument and read music	<b>(A)</b>	•	0	0	•	VH268961		
help with your math homework	0	•	0	0	•	VH268962	d. Go to websites for help with your math homework	<b>®</b>	(8)	0	Φ	©	VH268962		
(2018 Grade 12)							Issue: Resources	for Lea	rning an	d Instruc	ction				
21. Have you ever helped y	our friends w	rith their math	homework?			VH336085	43. Have you ever helped y	your friends	with their mat	th homework?			VH336085	NC	N/A
Yes							Yes								
® No							® No								
(2018 Grade 12)							Issue: Resources	for Lea	rning an	d Instruc	ction				

					2	019 C	perat	onal Grade 12 Mathematics Student		
Prev	ious item						•	2019 item	D/A/ R/NC+	Rationale
mat	er the past seven day th homework? Enter			helped your	friends with tl	neir	VH269037	44. Over the past seven days, how many days have you helped your friends with their math homework? Enter the number of days.  Issue: Resources for Learning and Instruction	NC NC	N/A
23. T	Thinking about math ollowing? Do not act	, do you thin ually solve th	k that you won te problems. So	uld be able to elect one ans	o do each of th wer choice on	each row.	VH589192	36. Thinking about math, do you think that you would be able to do each of the	R	A subset of items was
		I definitely can't	I probably can't	Maybe	I probably	I definite	ely	following? Do not actually solve the problems. Select one answer choice on each row.		selected from
	timate the weight of apples using pounds	<b>®</b>	(1)	0	Φ	Ф	VH267674	I definitely can't I probably can I probably can I definitely can		the previous
b. Di	vide 42 stickers rong 6 students	<b>®</b>	•	0	0	•	VH617317	a. Create an expression that represents the average number of		two matrices to be
67-	etermine a 20 reent tip of a -dollar restaurant	0	•	0	0	Φ	VH267679	miles you run in a week if you run 100 miles in w weeks b. Determine a 20		included in
d. De pro	escribe the operties shared by ery isosceles right angle	0	(8)	0	Φ	Φ	VH267681	percent tip of a 67-dollar restaurant dinner bill c. Describe the		the self- efficacy
e. Fir	and the amount of rpet needed to cover rectangular floor if u know its length d width	0	•	0	Φ	•	VH267682	properties shared by every isosceles right triangle		matrix for operational.
f. Kn tur if i A.M ho	now when to take a rkey out of the oven it goes in at 10:00 M. and it takes 3 urs and 45 minutes cook	Φ	•	0	٥	•	VH267683	Issue: Student factors		
30. T	hinking about math, ollowing? Do not actu	do you think ally solve the	that you would problems. Sele	d be able to d	o each of the	ch row.	VH613511			
		I definitely	I probably can't	Maybe	I probably	I definitely				
tha ave mil wee	eate an expression at represents the erage number of les you run in a ek if you run 100 les in w weeks	<b>®</b>	•	0	Φ	Φ	VF3460383			
to s wil	eate an expression show how old you ll be in <i>n</i> years if a are 8 years old lay	<b>Ø</b>	•	0	Φ	Φ	VH460386			
tha nur was	eate an expression it shows the mber of wheels on <i>n</i> gons if each wagon s 4 wheels	0	⑤	0	Φ	•	VH460389			
the you kno boo	plain how you know number of books a can buy if you ow the price of each ok and you have \$35		(6)	©	Φ	•	VH460391			
(201	8 Grade 12)									

				2	019 C	perat	ional Grade 12	Math	emati	cs Stud	dent				
Previous item							2019 item							D/A/ R/NC+	Rationale
24. How much does each one answer choice on	of the follow each row.	ing statemen	ts describe a p	erson like you	i? Select	MEMBER	34. How much does each of the following statements describe you? Select one answer choice on each row.								The version of the item that
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like	2		uses
I want other students to think I am good at math.	Ø	OD.	0	0	Φ	VISTABLE	I want other students     to think I am good at     math.	<b>®</b>	•	0	0	Φ	VH844871		"describe
b. I want to show others that my math schoolwork is easy for me.	0	Φ.	Θ		Φ	VH2/6050	b. I want to show others that my math schoolwork is easy for	<b>®</b>	<b>®</b>	0	0	•	VH844872		you" in the stem was
c. I want to look smart in comparison to the other students in my math class.	(5)	00	0	Ф	60	VICENSOLA	c. I want to look smart in comparison to the other students in my	<b>®</b>	<b>⑤</b>	0	0	•	VH844873		retained for operational.
d. I want to learn as much as possible in my math class.	Φ	0	0	Ф	0	VHQ69059	math class.  d. I want to get better grades than most other students in my math	<b>®</b>	®	0	0	<b>(</b>	VH844882		The single matrix was
e. I want to become better in math this year.	<b>©</b>	Ф	0	9	Θ	VH2n9056	class.  35. How much does each	of the follow	ving statemen	ts describe vo	ou? Select one	answer	VH845110		separated
<li>f. I want to understand as much as I can in my math class.</li>	8	œ	6	Φ	©	VISTAROUS	choice on each row.	Not at all	A little bit	Somewhat	Quite a bit	Exactly like			into two matrices of
25. How much does each choice on each row.	of the follow	ing statement	ts describe you	u? Select one	inswer	VH731865	a. I want to learn as much as possible in	like me	like me	like me	like me	me ©	VH845117	ì	achievement goals items
choice on each now.	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me		my math class.  b. I want to master a lot of new skills in my math class.	<b>®</b>	<b>®</b>	0	•	<b>(D)</b>	VH845114		(performance
I want other students to think I am good at math.	0	0	0	Φ.	Φ	VH731806	c. I want to become better in math this year.	<b>®</b>	(8)	0	Φ	<b>(</b>	VH845115		and mastery). In order to
<ul> <li>I want to show others that my math schoolwork is easy for me.</li> </ul>	0	0	Θ	Ф	θ	VHTIISSE	d. I want to understand as much as I can in my math class.	<b>®</b>	(3)	0	•	<b>©</b>	VH845118		create indices
c. I want to look smart in comparison to the other students in my math class.	8	69	0	90	9	V10/21888									performance
d. I want to learn as much as possible in my math class.	٥	0	0	0	Φ	VH721872									and mastery goals based
e. I want to become better in math this year,	8	9	0	9	Ф	VEGGIAZII.									on a total of at least 4
f. I want to understand as much as I can in my math class.	Φ	0	0	Ф	Φ	VHO/4873									items,
															VH844882 and VH845114 were added from the 2016 pilot
							i .								

Previous item							2019 item							D/A/ R/NC+	Rationale
26. How much do you enjo		ch of the follow	wing types of r	nath problem	s? Select	VIDOR	38. How much do you enjoy each of the following types of math activities? Select one answer choice on each row.							R	Previous sub items "a" –
	Enjoy not at	Enjoy a little bit	Enjoy somewhat	Enjoy quite a bit	Enjoy a lot			Enjoy not at	Enjoy a little bit	Enjoy somewhat	Enjoy quite a bit	Enjoy a lot			"c" were
Addition, subtraction, multiplication, and division	0	0	0	0	Ф	VH267499	Solving equations or simplifying	<b>®</b>	(I)	©	Φ	<b>©</b>	VH860653		dropped.
b. Finding areas of shapes and figures	90	Ф	0	00	(D)	V(126790)	expressions b. Constructing and								
c. Solving for probabilities and events (for example, eard, coin, marble, and spinner problems)	89	0)	0	0)	Ф	NIESGYIIS	building different types of graphs (for example, bar graph, line graph, or box and whisker plots)	<b>(3</b> )	(1)	0	0	®	VH860651		
d. Solving equations or simplifying expressions	Ø	Φ	0	69	Ф	N1 IzA7No	c. Working with geometric figures like rectangles and squares	<b>®</b>	(8)	0	•	(E)	VH860652		
e. Constructing and building different types of graphs (for example, bar graph, line graph, or box and whisker plots)	00	Φ	0	0	0	VHZATSON									
f. Working with geometric figures like rectangles and squares	0	0	6	0	Φ	VH267505									
Mover    Mover   Mover   Mover    Mover    Mover    Mover    Mover    Mover	that involve year month week		apps, video ga	mes, or comp	uter		40. How often do you play games) outside of school  Never  About once or twic  About once or twic  About once or twic  Every day or almost	ol that involve e a year e a month e a week		apps, video gai	mes, or compt	iter	VH460329	NC	N/A
2018 Grade 12)							Issue: Resources	for Lear	ning and	d Instruct	tion				
28. How often do you use a of school to play educa  Never  About once or twic  About once or twic  About once or twic  Every day or almos	ee a year ee a month ee a week			ng console ou	tside	VH460337	N/A							D	This item wa dropped to keep in line with NCES's review of technology- use items fo
2018 Grade 12)															grades 4 and 8.

2019 Operational Grade 12 Mathematics Student											
Previous item	2019 item	D/A/ R/NC+	Rationale								
29. How often do you use a computer, tablet, smartphone, or gaming console outside of school to play popular games that involve math?  Never  About once or twice a year  About once or twice a month  About once or twice a week  Every day or almost every day	N/A	D	This item was dropped to keep in line with NCES's review of technology-use items for grades 4 and								
(2018 Grade 12)			8.								

Previous item						•	ional Grade 12 I 2019 item							D/A/ R/NC+	Rationale
31. Thinking about math, following? Select one				do each of the		VIM13523	37. Thinking about math, do you think that you would be able to do each of the following? Select one answer choice on each row.							R	Previous sub
	I definitely	I probably	Maybe	I probably	I definitely		lonowing: select one	I definitely	I probably	77.79	I probably	I definitely			item "d" was
a. Decide if your	can't	can't		can	can		a. Decide if your	can't	can't	Maybe	can	can			dropped.
classmate's math work is correct b. Give an example to	0	00	0	0	0	YH440398	classmate's math work is correct	<b>(A)</b>	•	0	0	•	VH460398		
show that a math statement is false	Ø	Φ	9	Ф	Ф	VIII.	b. Give an example to show that a math statement is false	<b>®</b>	(1)	0	0	•	VH460399		
c. Explain to your classmatc how you solved a math problem	⊗	Ф	0	6	Ф	Vinessin	c. Explain to your classmate how you solved a math problem	<b>®</b>	(8)	0	Φ	<b>©</b>	VH460910		
d. Use correct mathematical words and symbols to communicate ideas about math	Ø	0	0	0	0	VISIAMO	d. Use correct mathematical words and symbols when showing your work	<b>®</b>	ⅎ	0	0	Φ	VH460902		
e. Use correct mathematical words and symbols when showing your work	Ф	<b>(B)</b>	Ø	0	Ф	VHMM2	e. Use definitions of geometric shapes to support an argument	<b>®</b>	<b>®</b>	0	0	•	VH460912		
f. Use definitions of geometric shapes to support an argument	9	Ф	0	Φ.	Φ	VH460913									
2018 Grade 12)							Issue: Student fac	tors							
<ul><li>2. Have you ever participated</li><li>Yes</li><li>No</li></ul>							<ul><li>Yes</li><li>No</li></ul>								
2018 Grade 12)							Issue: Student fac	tors							
Over the past seven days, be group outside of school? Er	now many da	ys have you p ber of days.	articipated ii	n a math study		VH460925	46. Over the past seven days, group outside of school?			rticipated in	a math study		VH460925	NC	N/A
2018 Grade 12)							Issue: Student fac	tors							
4. Have you ever participated  Tes  Tes  Tes	d in a math s	tudy group at	school?			V18490401	N/A							D	This item wa dropped based on the ADC's recommend ion for grade
2018 Grade 12)															4 and 8.
5. Over the past seven days, h group at school? Enter the	now many da number of da	ys have you pays.	articipated ir	a math study		VH460877	N/A							D	This item wa dropped based on the ADC's

2019 Operational Grade 12 Mathematics Student											
Previous item	2019 item	D/A/	Rationale								
		R/NC+									
(2018 Grade 12)			recommendat								
			ion for grades								
			4 and 8.								

## **Appendix K-1al: Operational Grade 12 Mathematics**

**24.** Which courses have you taken from eighth grade to the present? If you have taken a course more than once, give the **most recent** year you took it. INCLUDE courses taken in summer school, but DO NOT INCLUDE topics that were only taught as part of a longer course (such as trigonometry taught in drafting class or computer programming taught in Algebra II). Select **one** answer choice on each row.

		I have never taken this course.	I took this course in or before Grade 8.	I took this course in Grade 9.	I took this course in Grade 10.	I took this course in Grade 11.	I took this course in Grade 12.	
a.	Basic or general mathematics course	(A)	®	0	0	Ē	(F)	VH240820
b.	Tech-prep mathematics, business mathematics, consumer mathematics, or other applied mathematics course	(4)	®	0	Θ	<u>(</u>	Θ	VH240844
c.	Introduction to algebra or pre-algebra course	<b>(A)</b>	®	0	0	Ē	Ē	VH240822
d.	Algebra I course	A	®	©	0	Œ	(Ē)	VH240823
e.		(A)	®	©	0	Ē	Ē	VH240824
f.	Algebra II course, with or without trigonometry	<b>(A)</b>	®	O	0	Ē	Ē	VH240825
g.	<b>Trigonometry</b> (as a separate course)	A	®	0	0	Ē	Ē	VH240826
h.	<b>Pre-calculus</b> course (also called introductory analysis)	Ø	®	0	Θ	Œ.	(Ē)	VH240833
i.	Integrated mathematics 1 (first year of a multi-year course)	(4)	®	0	Θ	Œ.	Θ	VH240841
j.	Integrated mathematics 2 (second year of a multi-year course)	(4)	®	0	Θ	Œ.	(£)	VH240842
k.	Integrated mathematics 3 (third year of a multi-year course)	(8)	®	0	0	(E)	Φ	VH240843

		I have never taken this course.	I took this course in or before Grade 8.	I took this course in Grade 9.	I took this course in Grade 10.	I took this course in Grade 11.	I took this course in Grade 12.	
1.	Integrated mathematics 4 (fourth year of a multi-year course)	<b>(A)</b>	ß	0	0	©	(F)	VH240821
m	. Probability or statistics course	<b>(A)</b>	®	0	0	Œ	(Ē)	VH240836
n.	Calculus course	(A)	®	0	0	Œ	Ð	VH240829
0.	Computer programming course (such as C++, Visual Basic, etc.)	<b>®</b>	<b>®</b>	0	•	©	©	VH240835

VH250444

- **25.** Are you currently enrolled in or have you taken any of the following Advanced Placement  $(AP^{\textcircled{\$}})$  courses? Select **all** that apply.
  - (AP) Calculus AB.
  - ® Yes, I am enrolled in or have taken Advanced Placement (AP) Calculus BC.
  - © Yes, I am enrolled in or have taken Advanced Placement (AP) Statistics.
  - No, I have not taken any of the courses listed above.

- **26.** Are you currently enrolled in or have you taken an International Baccalaureate<sup>®</sup> (IB) mathematics course?
  - A Yes
  - ® No

17	LI 2	40	$\Omega A$	0

			VH240049
27.		e you currently enrolled in or have you taken any <b>online</b> mathematics courses <b>high school or college credit</b> ?	
	$\bigcirc$	Yes	
	®	No	
			VH240050
28.		s there a mathematics course that you would have liked to have taken this ool year but did not take?	
	lack	Yes, but my school does not offer the course.	
	®	Yes, but the course was full.	
	0	Yes, but I did not have the necessary prerequisites.	
	<b>(</b>	Yes, but my schedule was full.	
	Œ	No, there was no other course that I wanted to take.	
			VH240051
29.	Are	e you currently taking a mathematics course?	
	<b>(A)</b>	Yes	
	®	No	
			VH350115
30.		school this year, how often have you been asked to write long answers (several tences or paragraphs) to questions on tests or assignments that involved math?	
	<b>(A)</b>	Never	
	®	Once	
	0	Two or three times	
	<b>(</b>	Four or five times	
	Œ	More than five times	

**31.** In your math class this year, how often have you used the following types of calculators? Select **one** answer choice on each row.

	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a. Basic calculator	A	®	0	0	(Ē)	VH266809
b. Graphing calculator	(A)	®	0	0	Œ	VH266810

VH589166

**32.** This school year, how often did the following things happen in your math class? Select **one** answer choice on each row.

	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a. My teacher used computers or other digital devices to show us how to work through math problems.	<b>(A</b> )	®	0	Φ	Ē	VH267416
b. I used the Internet for my math work.	(A)	B	O	0	Œ	VH267417
c. My teacher used computers or other digital devices when teaching math to my class.	<b>(</b> A)	<b>®</b>	0	Φ	©.	VH588077
d. My teacher required us to use computers or other digital devices to complete math assignments.	<b>(</b>	<b>®</b>	0	Φ	©.	VH267419

- **33.** In this school year, how often have you used a computer or other digital device (excluding handheld calculators) to look online for resources for help with your math assignments?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

**34.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I want other students to think I am good at math.	<b>(A)</b>	®	©	0	©	VH844871
b.	I want to show others that my math schoolwork is easy for me.	<b>®</b>	®	0	0	©.	VH844872
c.	I want to look smart in comparison to the other students in my math class.	(4)	®	0	0	©	VH844873
d.	I want to get better grades than most other students in my math class.	(A)	®	0	0	Œ	VH844882

**35.** How much does each of the following statements describe you? Select **one** answer choice on each row.

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a. I want to learn as much as possible in my math class.	<b>(A)</b>	®	0	0	©.	VH845117
b. I want to master a lot of new skills in my math class.	<b>(A)</b>	®	0	0	Œ	VH845114
c. I want to become better in math this year.	<b>(A)</b>	®	0	0	Œ	VH845115
d. I want to understand as much as I can in my math class.	(A)	®	0	0	Œ	VH845118

**36.** Thinking about math, do you think that you would be able to do each of the following? Do not actually solve the problems. Select **one** answer choice on each row.

	I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a. Create an expression that represents the average number of miles you run in a week if you run 100 miles in w weeks	<b>(A)</b>	®	©	Φ	©.	VH460383
b. Determine a 20 percent tip of a 67-dollar restaurant dinner bill	<b>(A)</b>	®	0	0	©	VH267679
c. Describe the properties shared by every isosceles right triangle	<b>(A)</b>	®	0	0	©.	VH267681

**37.** Thinking about math, do you think that you would be able to do each of the following? Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Decide if your classmate's math work is correct	<b>®</b>	®	0	0	Œ	VH460398
b.	Give an example to show that a math statement is false	(4)	®	0	0	Œ	VH460399
c.	Explain to your classmate how you solved a math problem	(A)	®	0	0	Œ	VH460910
d.	Use correct mathematical words and symbols when showing your work	(9)	®	0	Φ	©.	VH460902
e.	Use definitions of geometric shapes to support an argument	(8)	®	0	0	Œ	VH460912

VH860646

**38.** How much do you enjoy each of the following types of math activities? Select **one** answer choice on each row.

		Enjoy not at all	Enjoy a little bit	Enjoy somewhat	Enjoy quite a bit	Enjoy a lot	
a.	Solving equations or simplifying expressions	<b>(A)</b>	ß	0	0	©.	VH860653
b.	Constructing and building different types of graphs (for example, bar graph, line graph, or box and whisker plots)	(9)	®	0	0	<b>©</b>	VH860651
c.	Working with geometric figures like rectangles and squares	<b>®</b>	®	0	0	©.	VH860652

39. I	How	often	do	you	use	math	in	everyday	life	outside	of	scho	ol	?
-------	-----	-------	----	-----	-----	------	----	----------	------	---------	----	------	----	---

- Never
- About once or twice a year
- About once or twice a month
- About once or twice a week
- © Every day or almost every day

VH460329

- **40.** How often do you play digital games (for example, apps, video games, or computer games) **outside of school** that involve math?
  - Never
  - About once or twice a year
  - About once or twice a month
  - About once or twice a week
  - © Every day or almost every day

VH589204

**41.** How often do you participate in each of the following activities **outside of school**? Select **one** answer choice on each row.

	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a. Talk about math problems with your friends	<b>(A)</b>	®	0	0	©	VH268946
b. Program computers	A	®	0	0	©	VH268949
c. Play an instrument and read music	(A)	®	0	0	©	VH268961
d. Go to websites for help with your math homework	(A)	®	0	0	Œ	VH268962

			V11330233
42.		ow often do you receive help or tutoring with math <b>outside of school or after</b> nool?	
	$\bigcirc$	Never	
	®	About once or twice a year	
	0	About once or twice a month	
	<b>(</b>	About once or twice a week	
	(E)	Every day or almost every day	
			VH336085
43.	Ha	ve you ever helped your friends with their math homework?	
	<b>(A)</b>	Yes	
	B	No	
44.		rer the past seven days, how many days have you helped your friends with their of the number of days.	VH269037
45.	<b>(A)</b>	ve you ever participated in a math study group <b>outside of school</b> ? Yes No	VH460923
46.		ver the past seven days, how many days have you participated in a math study oup <b>outside of school</b> ? Enter the number of days.	VH460925

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I enjoy doing math.	A	®	©	0	Œ	VH731853
b.	I look forward to my math class.	A	®	0	0	Œ	VH731854
c.	I am interested in the things I learn in math.	A	B	0	0	Œ	VH731858
d.	I think making an effort in math is worthwhile.	A	®	0	0	Œ	VH731855
e.	I think math will help me even when I am not in school.	(9)	®	0	0	Œ	VH731860
f.	I think it is important to do well in math.	(A)	B	0	0	Œ	VH731857
g.	I take mathematics because it will help me in the future.	(A)	®	0	0	Œ	VH731859
h.	I take mathematics to meet my high school graduation requirements.	0	®	0	0	Œ	VH731856

## Appendix K-1am: Summary of Changes Operational Grade 4 Science

2019 (	Operational Grade 4 Science Student		
Previous item	2019 item	D/A/ R/NC-	Rationale
	V1859912	NC	N/A
<ol> <li>In your science class this year, how often have you learned about living things (for example, plants, animals, or bacteria)?</li> </ol>	17. In your science class this year, how often have you learned about living things (for example, plants, animals, or bacteria)?		,,,,
Never or hardly ever	Never or hardly ever		
© Once in a while	Once in a while		
© Sometimes	© Sometimes		
© Often	© Often		
© Very often	Very often		
2018 Grade 4)	Issue: Organization of Instruction		
		NC	N/A
2. In your science class this year, how often have you learned about electricity (for example, circuits, batteries, or light bulbs)?	18. In your science class this year, how often have you learned about electricity (for example, circuits, batteries, or light bulbs)?		1.47.
Never or hardly ever	Never or hardly ever		
Once in a while	Once in a while		
© Sometimes	© Sometimes		
© Often	© Often		
∇ Very often	© Very often		
(2018 Grade 4)	Issue: Organization of Instruction		
		/Misselly N.C.	N1 / A
<ol><li>In your science class this year, how often have you learned about chemicals (for example, vinegar, baking soda, or hydrogen peroxide)?</li></ol>	<ol> <li>In your science class this year, how often have you learned about chemicals (for example, vinegar, baking soda, or hydrogen peroxide)?</li> </ol>	NC	N/A
Never or hardly ever	Never or hardly ever		
① Once in a while	Once in a while		
© Sometimes	© Sometimes		
© Often	© Often		
Very often	© Very often		
2018 Grade 4)	Issue: Organization of Instruction		
		NC	N/A
<ol><li>In your science class this year, how often have you learned about rocks or minerals (for example, diamond, iron, or lava rock)?</li></ol>	20. In your science class this year, how often have you learned about rocks or minerals (for example, diamond, iron, or lava rock)?		
<ul> <li>Never or hardly ever</li> </ul>	Never or hardly ever		
Once in a while	Once in a while		
© Sometimes	© Sometimes		
© Often	© Often		
○ Very often	© Very often		
(2018 Grade 4)	Issue: Organization of Instruction		

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

2019 Op	erational Grade 4 Science Student		
Previous item	2019 item	D/A/ R/NC+	Rationale
5. In your science class this year, how often have you done science activities using scientific tools (for example, microscopes, thermometers, beakers, or weighing scales)?	21. In your science class this year, how often have you done science activities using scientific tools (for example, microscopes, thermometers, beakers, or weighing scales)?	NC	N/A
Never or hardly ever	Never or hardly ever		
Once in a while	Once in a while		
© Sometimes	© Sometimes		
① Often	Often		
Always or almost always	Always or almost always		
(2018 Grade 4)	Issue: Organization of Instruction		
6. In your science class this year, how often have you read from a science textbook (print or digital)?		NC NC	N/A
Never or hardly ever	Never or hardly ever		
Once in a while	Once in a while		
© Sometimes	© Sometimes		
Often	© Often		
Always or almost always	Always or almost always		
(2018 Grade 4)	Issue: Organization of Instruction		
7. In your science class this year, how often have you learned about science topics on the Internet?	23. In your science class this year, how often have you learned about science topics on the Internet?	NC NC	N/A
Never or hardly ever	Never or hardly ever		
Once in a while	Once in a while		
© Sometimes	© Sometimes		
© Often	© Often		
Always or almost always	Always or almost always		
(2018 Grade 4)	Issue: Organization of Instruction		
336036	24. In your science class this year, how often have you watched a short video clip.	NC	N/A
8. In your science class this year, how often have you watched a short video clip, movie, or video about science topics?	movie, or video about science topics?  Never or hardly ever		
Never or hardly ever	Once in a while		
Once in a while	© Sometimes		
© Sometimes	① Often		
© Often	Always or almost always		
Always or almost always			
(2018 Grade 4)	Issue: Organization of Instruction		

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

2019 O	perational Grade 4 Science Student		
Previous item	2019 item	D/A/ R/NC+	Rationale
9. In your science class this year, how often have you been asked to write about science topics (for example, a science journal, lab report, or essay)?  ② Never or hardly ever ③ Once in a while ③ Sometimes ⑤ Often ④ Always or almost always	25. In your science class this year, how often have you been asked to write about science topics (for example, a science journal, lab report, or essay)?  © Never or hardly ever  © Once in a while  © Sometimes  © Often  © Always or almost always	NC NC	N/A
(2018 Grade 4)  10. In this school year, how often have you understood what the teacher talks about in science class?  © Never or hardly ever  © Once in a while  © Sometimes  © Often  © Always or almost always  (2018 Grade 4)	Issue: Organization of Instruction  N/A	D	Due to overlap with new content and to keep student burden low, this item was dropped.
11. In this school year, how often have you done well on your science tests?  © Never or hardly ever  © Once in a while  © Sometimes  © Often  © Always or almost always  (2018 Grade 4)	N/A	D	Due to overlap with new content and to keep student burden low, this item was dropped.
12. In this school year, how often have you done well on your science assignments (for example, projects, homework, or worksheets)?  © Never or hardly ever  © Once in a while  © Sometimes  © Often  © Always or almost always  (2018 Grade 4)	N/A	D	Due to overlap with new content and to keep student burden low, this item was dropped.

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item						2019 item								Rationale	
13. Thinking about science, do you think that you would be able to do each of the following activities? Select one answer choice on each row,							27. Thinking about science, do you think that you would be able to do each of the following activities? Select <b>one</b> answer choice on each row.								Due to a lack
	I definitely can't	I probably can't	Maybe	I probably can	I definitely can			I definitely can't	I probably can't	Maybe	I probably	I definitely			of response variability and
Describe different     ways to heat or cool     water	<b>®</b>	(5)	0	0	Φ	V74638868	Describe different     ways to heat or cool     water	00	0	0	0	Θ	V16635868		to keep student
b. Describe how the length of a vibrating string affects the sound it makes	0	0	0	8	Ф	V94638870	b. Describe how the length of a vibrating string affects the sound it makes	•	•	θ	0	Θ	VH638170		burden low, sub-item g
<li>c. Design an experiment to show how sunlight affects the growth of a plant</li>	0	0	0	Φ	Φ	V2N38872	c. Design an experiment to show how sunlight affects the growth of a plant	0	•	0		Θ	VH63/871		was dropped
d. Use examples to show how one living thing has helped another to survive	0	•	0	Ф	Ф	V29038875	d. Use examples to show how one living thing has helped another to survive	Φ	<b>®</b>	0	0	Ф	¥15038875		
<li>c. Describe what would happen to the number of trogs at a pond if all the insects were removed from the pond</li>	Θ	0	0	0	Φ	Villation 76	e. Describe what would happen to the number of frogs at a pond if all the insects were removed from the	0	<b>®</b>	0	•	θ	V1853647n		
f. Decide which tool to use if you want to measure wind speed	<b>®</b>	(6)	0	0	Ð	V20636683	f. Decide which tool to use if you want to	0	0	0	9	Φ	VH638881		
g. Describe why the weather in the summer is different than in the winter	0	0	0	Ф	0	уныния	measure wind speed								

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

							<b>2019 item</b>							D/A/ R/NC+	Rationale
<ol> <li>How much does each choice on each row.</li> </ol>	of the follow	ving statemen	ts describe yo	u? Select one	answer	VII659079	28. How much does each choice on each row.	of the follow	ving statemen	es describe yo	u? Select one	answer	VHIDWIN	R	This item was
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	1 1		two items to
i. I want other students to think I am good at science.	0	(1)	0	9	9	VHA39080	a. I want other students     to think I am good     at science.	۵	<b>®</b>	0	9	9	VHGROOD		reduce scrolling and
o. I want to show others that science schoolwork is easy for me.	<b>©</b>	•	0	0	Φ	V11639062	b. I want to show others that science schoolwork is easy for mc.	0	Œ	0	0	9	VHILIPOWZ		align presentation
<ol> <li>I want to look smart in comparison to the other students in my science class.</li> </ol>	Ø	•	0	.00	θ	V116.19064	c. I want to look smart in comparison to the other students in my science class.	•	•	0	Ф	0	VH039084		with similar items in other
l. I want to get better science grades than most other students in my class.	0	Ф	0	0	Φ	VH732329	d. I want to get better grades than most other students in my science	0	0	0	0	0	Vissguine		subjects.
. I want to learn as much as possible in my science class.	0	@	0	0	0	VH630066	29. How much does each choice on each row.	of the follow	ving statemen	es describe yo	ui Select one	answer	Visidousd		Additionally, the wording
. I want to become better in science this year.	0	•	0	0	0	VH639087	choice on each row.	Not at all	A little bit	Somewhat	Quite a bit	Exactly like			of sub-items d and h (now
<ol> <li>I want to understand as much as I can in my science class.</li> </ol>	•	•	0	0	0	VH639089	a. I want to learn as much as possible in	like me	like me	like me	like me	me	VHSSOON		sub-item d in
n. I want to master a lot of new science skills in my class.	0	•	0	٥	Ø	VH7.85400	my science class. b. I want to become better in science	0	0	0	0	Φ	938639087		the second matrix) have
2018 Grade 4)							c. I want to understand as much as I can in my science class.	0	•	0	0	Ф	VM6390R2		been revised, with the word
							d. I want to master a lot of new skills in my science class.	<b>©</b>	0	0	Φ	Ф	VHENDANA		"science" moved to

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

revious item							2019 item							D/A/ R/NC+	Rationale
5. In this school year, ho of school? Select one			of the follow	ing activities	outside	VIII.38951	30. In this school year, how of school? Select one ans	often have swer choice	you done each on each row.	of the follow	ing activities	outside	VHC8951	R	Due to a lack of response
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			variability ar
. Work on science-related projects (for example, making a volcano, growing plants from seeds, or building simple rockets)	<b>③</b>	0	0	<b>©</b>	Θ	V38638970	a. Worked on science-related projects (for example, making a volcano, growing plants from seeds, or building simple rockets)	0	9	9	θ	θ	VHS:91s2		to keep student burden low, sub-item b
Write or blog about science topics	0	0	0	0	0	VH638983	b. Used scientific tools								was droppe
Use scientific tools (for example, microscopes, thermometers, beakers, or weighing	•	0	0	Ф	60	V#636985	(for example, microscopes, thermometers, beakers, or weighing scales)  c. Read about science	0	(3)	0	0	6	VH891917		Additionally the verbs at
scales)  Read about science topics in books or magazines (print or	•	(3)	0	•	Ф	V21635987	topics in books or magazines (print or digital) d. Attended clubs or	0	0	0	.00	0	VH638987		the beginni of the origin sub-items a
digital) Attend clubs or programs that include science or engineering activities (for example, chemistry club, robotics club, or coding programs)	<b>©</b>	<b>©</b>	0	Φ	Ф	VH638991	programs that include science or engineering activities (for example chemistry club, robotics club, or coding programs)	•	θ	0	0	Φ	VH9932/8		and c have been chang to past tens
018 Grade 4)  6. How much does each choice on each row.	of the follow	ving statemen	ts describe yo	u? Select one	answer	уналите	Issue: Student Fac		ing statement	ts describe yo	u? Select <b>one</b>	answer	VH69es	NC	for consistency with the ite stem. N/A
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like			
	®	Ф	©	Ф	0	VH639117	a. I enjoy science	⊕ ⊕	®	© ©	mke me	Ф	VH639117		
		Ф	0	0	Ф	501639130	b. I look forward to my	<b>6</b>	0	0	0	0	V14639120		
activities. I look forward to my	0		0	0	0	V11/A9122	c. I am interested in the things I learn in science class.	0	0	0	6	0	VH639122		
activities. I look forward to my science class. I am interested in the things I learn in science class.	9	Ф	9				d. I think making an		100		0	0	VIII.39125		
I look forward to my science class.  I am interested in the things I learn in science class.  I think making an effort in science class is worthwhile.		0	0	Φ	Φ	VIIGIOLES	effort in science class is worthwhile.	(3)	0	0			100		
activities. I look forward to my science class. I am interested in the things I learn in science class. I think making an effort in science class	•	11000		<b>©</b>	6	V1639125 V1639127	effort in science class is worthwhile.  e. I think science will help me even when I am not in school.	8	0	9	0	Θ	V58639127		

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item							2019 item								Rationale
17. In this school year, ho class? Select one answ			following activ	ities in your	science	Visilorea	26. In this school year, he class? Select one answ			following activ	ities in you	science	V166,3014II	NC	N/A
	Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always			Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always			
Made a drawing that explains why or how something happens	0	<b>®</b>	0	0	Φ	Valicity) to	Made a drawing that explains why or how something happens	0	0	0	0	Φ	VH639156		
b. Used a science experiment to answer a question	0	0	@	0	Φ	V9639162	b. Used a science experiment to answer a question	@	0	0	0	0	VH639162		
<ul> <li>Put information you collected into a table or graph</li> </ul>	•	(1)	0	0	0	VH639164	c. Put information you collected into a table or graph	<b>®</b>	(8)	0	0	Ф	VH639164		
d. Used evidence to explain why something happens	Φ	0	Φ	0	0	YEMSKIRO	d. Used evidence to explain why something happens	Θ	0	0	0	0	VHoSilion		
e. Found news articles about science on the Internet	0	Φ	0	0	Φ	VMCK81800	e. Found news articles about science on the Internet	0	0	0	0	0	AHRantro		
(2018 Grade 4)							Issue: Organizati	on of Ins	truction						
18. How often do you talk someone in your family		ou have lear	ned in science	class with		VH745490	32. How often do you talk someone in your fami		you have lear	rned in science	class with		VHISTAN	NC	N/A
<ul> <li>Never or hardly eve</li> </ul>	or.						Never or hardly ev	***							
Once in a while							D Once in a while								
© Sometimes							© Sometimes								
Often							Often								
Very often															

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

## **Appendix K-1an: Operational Grade 4 Science**

VΠ	46	30	M1	$^{\circ}$

<b>17.</b>	In your science class this year, how often have you learned about living things (for
	example, plants, animals, or bacteria)?

- Never or hardly ever
- ® Once in a while
- © Sometimes
- Often
- © Very often

VH639027

- **18.** In your science class this year, how often have you learned about electricity (for example, circuits, batteries, or light bulbs)?
  - Never or hardly ever
  - ® Once in a while
  - © Sometimes
  - Often
  - Very often

VH639033	

			VH639033
19.		your science class this year, how often have you learned about chemicals (for ample, vinegar, baking soda, or hydrogen peroxide)?	V11037032
	(A)	Never or hardly ever	
	®	Once in a while	
	0	Sometimes	
	<b>(</b>	Often	
	Œ	Very often	
			VH639037
20.		your science class this year, how often have you learned about rocks or minerals example, diamond, iron, or lava rock)?	
	$\bigcirc$	Never or hardly ever	
	®	Once in a while	
	0	Sometimes	
	0	Often	
	Œ	Very often	
			VH639043
21.	sci	your science class this year, how often have you done science activities using entific tools (for example, microscopes, thermometers, beakers, or weighing les)?	
	$\bigcirc$	Never or hardly ever	
	®	Once in a while	
	0	Sometimes	
	0	Often	
	Œ	Always or almost always	

			VH639047
22.		your science class this year, how often have you read from a science textbook int or digital)?	
	<b>(A)</b>	Never or hardly ever	
	$^{ ext{ B}}$	Once in a while	
	0	Sometimes	
	<b>(</b>	Often	
	(E)	Always or almost always	
			VH639055
23.		your science class this year, how often have you learned about science topics on a Internet?	
	<b>(A)</b>	Never or hardly ever	
	$^{\odot}$	Once in a while	
	0	Sometimes	
	0	Often	
	(E)	Always or almost always	
			VH639057
24.		your science class this year, how often have you watched a short video clip, ovie, or video about science topics?	
	<b>(A)</b>	Never or hardly ever	
	$^{\odot}$	Once in a while	
	0	Sometimes	
	0	Often	
	(E)	Always or almost always	

- **25.** In your science class this year, how often have you been asked to write about science topics (for example, a science journal, lab report, or essay)?
  - Never or hardly ever
  - ® Once in a while
  - © Sometimes
  - Often
  - © Always or almost always

VH639149

**26.** In this school year, how often have you done the following activities in your science class? Select **one** answer choice on each row.

		Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always	
a.	Made a drawing that explains why or how something happens	<b>(</b> A)	®	0	0	Œ	VH639156
b.	Used a science experiment to answer a question	<b>(</b> A)	®	0	0	Œ	VH639162
c.	Put information you collected into a table or graph	<b>(</b> A)	®	0	0	Œ	VH639164
d.	Used evidence to explain why something happens	(A)	®	0	0	Œ	VH639166
e.	Found news articles about science on the Internet	<b>(A)</b>	®	0	0	Œ	VH639169

**27.** Thinking about science, do you think that you would be able to do each of the following activities? Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Describe different ways to heat or cool water	<b>(A)</b>	®	0	0	Œ	VH638868
b.	Describe how the length of a vibrating string affects the sound it makes	(4)	®	0	0	©.	VH638870
c.	Design an experiment to show how sunlight affects the growth of a plant	(4)	®	0	0	©	VH638872
d.	Use examples to show how one living thing has helped another to survive	<b>®</b>	®	0	0	©.	VH638875
e.	Describe what would happen to the number of frogs at a pond if all the insects were removed from the pond	(4)	®	0	0	(£)	VH638876
f.	Decide which tool to use if you want to measure wind speed	<b>(A)</b>	(B)	0	0	Œ	VH638883

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I want other students to think I am good at science.	<b>®</b>	®	0	0	Œ	VH639080
b.	I want to show others that science schoolwork is easy for me.	(4)	®	0	0	<u>(</u>	VH639082
c.	I want to look smart in comparison to the other students in my science class.	(4)	®	0	Θ	<u>(</u>	VH639084
d.	I want to get better grades than most other students in my science class.	<b>(</b>	®	0	0	<u>(</u>	VH860366

**29.** How much does each of the following statements describe you? Select **one** answer choice on each row.

VH859155

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I want to learn as much as possible in my science class.	<b>(A)</b>	®	0	0	©.	VH639086
b.	I want to become better in science this year.	(8)	®	0	0	Œ	VH639087
c.	I want to understand as much as I can in my science class.	(8)	®	0	0	Œ	VH639089
d.	I want to master a lot of new skills in my science class.	<b>®</b>	®	O	0	©.	VH860369

VH638951

**30.** In this school year, how often have you done each of the following activities **outside of school**? Select **one** answer choice on each row.

		Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a.	Worked on science-related projects (for example, making a volcano, growing plants from seeds, or building simple rockets)	<b>®</b>	®	0	Φ	©.	VH859162
b.	Used scientific tools (for example, microscopes, thermometers, beakers, or weighing scales)	<b>®</b>	®	0	Φ	©.	VH891927
c.	Read about science topics in books or magazines (print or digital)	<b>®</b>	®	0	0	©	VH638987
d.	Attended clubs or programs that include science or engineering activities (for example chemistry club, robotics club, or coding programs)	(A)	®	0	(1)	©	VH893268

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I enjoy science activities.	A	B	0	0	Ē	VH639117
b.	I look forward to my science class.	(A)	B	0	0	Ē	VH639120
c.	I am interested in the things I learn in science class.	(A)	®	0	0	©	VH639122
d.	I think making an effort in science class is worthwhile.	(A)	®	0	0	©	VH639125
e.	I think science will help me even when I am not in school.	(A)	®	0	0	©.	VH639127
f.	I think it is important to do well on science assignments.	(A)	®	0	0	©	VH639128

VH743438

- **32.** How often do you talk about things you have learned in science class with someone in your family?
  - Never or hardly ever
  - ® Once in a while
  - © Sometimes
  - Often
  - © Very often

# **Appendix K-1ao: Summary of Changes Operational Grade 8 Science**

2019 Ope	rational Grade 8 Science Stude	ent	
Previous item	2019 item	D/A/ R/NC+	Rationale
I. In this school year, how often have you understood what the teacher talks about in science class?  ① Never or hardly ever ① Once in a while ② Sometimes ② Often ① Always or almost always  (2018 Grade 8)	N/A	D	Due to overlap with new content and to keep student burden low, this item was dropped.
2. In this school year, how often have you done well on your science tests?  O Never or hardly ever  O Once in a while  Sometimes  Often  Always or almost always  (2018 Grade 8)	N/A	D	Due to overlap with new content and to keep student burden low, this item was dropped.
3. In this school year, how often have you done well on your science assignments (for example, projects, homework, or worksheets)?  © Never or hardly ever  © Once in a while  © Sometimes  © Often  © Always or almost always.  (2018 Grade 8)	N/A	D	Due to overlap with new content and to keep student burden low, this item was dropped.

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item							2019 item							D/A/ R/NC+	Rationale
4. In your science class of projects on any of the						VH638971	22. In your science class t projects on any of the						VH639071	NC	N/A
	Never or hardly ever	Once in a while	Sometimes	Often	Very often			Never or hardly ever	Once in a while	Sometimes	Often	Very often			
Living things (for example, plants, animals, or bacteria)	0	<b>®</b>	0	0	9	VH639072	Living things (for example, plants, animals, or bacteria)	•	•	0	•	Φ	VH6.86072		
Electricity (for example, circuits, batteries, or light bulbs)	<b>®</b>	Φ	0	9	Φ	VHo,00074	b. Electricity (for example, circuits, batteries, or light bulbs)	Φ	0	0	0	Φ	V246,0907a		
Chemicals (for example, vinegar, baking soda, or hydrogen peroxide)	@	Ф	0	Φ	Φ	VHC1907.3	c. Chemicals (for example, vinegar, baking soda, or hydrogen peroxide)	0	•	0	0	θ	V34639073		
. Rocks or minerals (for example, diamond, iron, or lava rock)	•	•	0	0	0	VII639077	d. Rocks or minerals (for example, diamond, iron, or lava rock)	<b>®</b>	0	0	0	Φ	VH6/8027		
							e. Technology and					+			
	Ø	0	0	0	θ	V1653076	engineering (for example, robots, pulley systems, or ramps)  Issue: Organization	A		0	•	Ф	VH639076		
engineering (for example, robots, pulley systems, or ramps)	his year, how answer choice	often have yo			ng	V16539076	engineering (for example, robots, pullcy systems, or ramps)	on of Ins	truction			ng	VH6.89076	R	wording
engineering (for example, robots, pulley systems, or ramps)  2018 Grade 8)  5. In your science class to	his year, how	often have yo					engineering (for example, robots, pulley systems, or ramps)  Issue: Organizatio  23. In your science class t	on of Ins	truction					R	wording based on
engineering (for example, robots, pulley systems, or ramps)  2018 Grade 8)  5. In your science class to	his year, how answer choice	often have yo on each row.	u done each of	the followin	Always or almost		engineering (for example, robots, pulley systems, or ratmps)  Issue: Organizatio  23. In your science class t activities? Select one activities? Select one textbook (print or	on of Ins	truction often have yo on each row.	u done each of	the followin	Always or almost		R	wording based on
engineering (for example, robots, pulley systems, or ramps)  2018 Grade 8)  5. In your science class activities? Select one	his year, how answer choice Never or hardly ever	often have yo on each row. Once in a while	ou done each of	the followin	Always or almost always		engineering (for example, robots, pulley systems, or ramps)  Issue: Organizatio  23. In your science class t activities? Select one activities? Select one digital  a. Read from a science textbook (print or digital)  b. Read a book or magazine (print or digital) about science	On of Ins his year, how answer choice Never or hardly ever	often have yo on each row.	u done each of	the followin Often	Always or almost always	VH692H	R	wording based on stakeholde feedback, sub-item e
engineering (for example, robots, pulley systems, or ramps)  2018 Grade 8)  5. In your science class activities? Select one  a. Read from a science textbook (print or digital)  b. Read a book or magazine (print or digital) about science	his year, how answer choice Never or hardly ever	often have yo on each row.  Once in a while	Sometimes	the followin	Always or almost always		engineering (for example, robots, pulley systems, or ratmps)  ISSUE: Organization  23. In your science class tactivities? Select one activities? Select one digital)  a. Read from a science textbook (print or digital)  b. Read a book or magazine (print or digital) about science topics  c. Used the Internet to learn about science	on of Ins his year, how answer choice  Never or hardly ever	often have yo on each row.  Once in a while	u done each of  Sometimes	Often	Always or almost always	VH639313	R	wording based on stakeholde feedback, sub-item e
engineering (for example, robots, pulley systems, or ramps)  2018 Grade 8)  5. In your science class to activities? Select one textbook (print or digital)  5. Read a book or magazine (print or digital)  6. Read a book or magazine (print or digital)  7. Lead a book or magazine (print or digital)  8. Lead a book or magazine (print or digital)  9. Read a book or magazine (print or digital) about science topics  1. Used the Internet to learn about science	his year, how answer choice Never or hardly ever	Once in a while	Sometimes  ©	Often	Always or almost always	VH630342 VH6303123 VH630315	engineering (for example, robots, pulley systems, or ramps)  Issue: Organizatio  23. In your science class t activities? Select one:  a. Read from a science textbook (print or digital)  b. Read a book or magazine (print or digital) about science topics  c. Used the Internet to learn about science topics.  d. Watched a short video clip, movie, or video	On of Ins this year, how answer choice Never or hardly ever	often have yo on each row.  Once in a while	u done each of  Sometimes  ©	often	Always or almost always	V1659311 V26530313 V26530315	R	wording based on stakeholde feedback, sub-item e
engineering (for example, robots, pulley systems, or ramps)  2018 Grade 8)  5. In your science class to activities? Select one  1. Read from a science textbook (print or digital)  2. Read a book or magazine (print or digital)  3. Read a book or magazine exprint or digital) about science topics  2. Used the Internet to learn about science topics  4. Watched a short video clip, movie, or video	his year, how answer choice Never or hardly ever	Once in a while	Sometimes  ©	Often	Always or almost always	VH639315 VH639315 VH639314	engineering (for example, robots, pulley systems, or ramps)  Issue: Organizatio  23. In your science class t activities? Select one activities? Select one digital)  b. Read a book or magazine (print or digital) about science topics  c. Used the Internet to learn about science topics  d. Watched a short video	On of Ins  On of Ins  his year, how answer choice  Never or hardly ever	often have yo on each row.  Once in a while	u done each of  Sometimes  ©  ©	Often	Always or almost always	V16593113 V26530313 V26530315 V26500316	R	based on stakeholde

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item						2019 item						D/A/ R/NC+	Rationale		
<ol><li>Thinking about scient following activities? 5</li></ol>	ce, do you thin Select <b>one</b> answ	k that you wo ver choice on t	uld be able to each row.	o do each of th	ie	V11633566	24. Thinking about science following activities? S				o do each of th	ie	VH882515	R	Due to a lack
	I definitely can't	I probably can't	Maybe	I probably can	I definitely can			I definitely can't	I probably can't	Maybe	I probably	I definitely			of response variability and
a. Describe different ways to heat or cool water	0	0	0	6	Θ	VMSSimes	Describe how the length of a vibrating string affects the	<b>®</b>	Ф	0	0	Ф	VHAUSE70		to keep student
b. Describe how the length of a vibrating string affects the sound it makes	0	•	0	0	Ф	VE5618870	b. Design an experiment to show how sunlight	0	<b>®</b>	0		Φ	V11638872		burden low,
c. Design an experiment to show how sunlight affects the growth of a plant	Φ	<b>®</b>	0	0	0	VEN00072	affects the growth of a plant c. Describe what would happen to the number		7						sub-items a, d, and g were
d. Use examples to show how one living thing has helped another to survive	<b>Ø</b>	Φ	0	0	Ф	V88638875	of frogs at a pond if all the insects were removed from the pond	0	Œ	0	0	Φ	VH659876.		dropped.
e. Describe what would happen to the number of frogs at a pond if all the insects were removed from the pond	0	Φ	Ø	۵	Ф	V94638876	d. Decide which tool to use if you want to measure wind speed	<b>Ø</b>	Ф	Ø	100	Φ	VH6486KT		
f. Decide which tool to use if you want to measure wind speed	Φ.	Φ	0	Ф	Ф	VHASSES									
g. Describe why the weather in the summer is different than in the winter	•	<b>®</b>	0	0	Θ	VMSSHES									

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

### 2019 Operational Grade 8 Science Student **Previous item** 2019 item D/A/ Rationale R/NC+ 7. How much does each of the following statements describe you? Select one answer R 25. How much does each of the following statements describe you? Select one answer This item was choice on each row. divided into Not at all A little bit Somewhat Quite a bit Exactly like me Not at all A little bit Somewhat Quite a bit Exactly two items to like me like me like me like me like me a. I want other students a. I want other students reduce to think I am good 0 0 0 to think I am good 0 Œ 0 0 0 at science. at science. scrolling and . I want to show b. I want to show others that science align 0 0 0 others that science schoolwork is easy 0 1 0 0 0 schoolwork is easy for me for me. presentation c. I want to look smart I want to look smart in comparison to the with similar 0 0 0 0 in comparison to the other students in my 0 1 0 0 D other students in my science class. items in other science class. d. I want to get better d. I want to get better science grades than subjects. 0 0 0 0 0 grades than most other most other students in 0 0 0 0 0 students in my science my class. Additionally, class. I want to learn as much as possible in 0 1 0 0 0 the wording my science class, I want to become of sub-items 26. How much does each of the following statements describe you? Select one answer better in science 0 0 0 0 0 choice on each row. this year. d and h (now I want to understand as much as I can in 0 0 Not at all A little bit Somewhat Quite a bit Exactly like 0 0 sub-item d in like me like me my science class. h. I want to master a lot the second a. I want to learn as of new science skills 0 0 0 0 much as possible in 0 0 0 0 0 in my class. matrix) have my science class. b. I want to become been revised, better in science 0 1 0 0 D this year. with the word c. I want to understand as much as I can in 0 0 0 0 0 "science" my science class. d. I want to master a lot moved to of new skills in my 0 0 0 0 0 science class. before the word "class".

**Issue:** Student Factors

(2018 Grade 8)

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item							2019 item							D/A/ R/NC+	Rationale		
8. In this school year, ho of school? Select one a			of the follow	ing activities	outside	¥19638993	27. In this school year, how of school? Select one an			of the follow	ing activities	outside	V14638951	R	Due to a lack of response		
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			variability an		
s. Work on science-related projects (for example, making a volcano, growing plants from seeds, or building simple rockets)	Ø	0	9	9	θ	V34604979	a. Worked on science-related projects (for example, making a volcano, growing plants from seeds, or building simple rockets)	Φ.	(8)	0	0	9	AHSSATUT		to keep student burden low, sub-item b		
Write or blog about science topics	0	0	0	0	0	VH638983	b. Used scientific tools (for example,					1			was droppe		
Use scientific tools (for example, microscopes, thermometers, beakers, or weighing	Ø	⊕	0	0	θ	VHAINORS	microscopes, thermometers, beakers, or weighing scales)	۵	•	0	0	0	VHR91923		Additionally the verbs at the beginni		
scales)  Read about science topics in books or magazines (print or	0	Φ	0	00	Φ	VH636987	topics in books or magazines (print or digital) d. Attended clubs or	Φ	00	0	Φ	Ф	VH638987		of the origi		
digital)  Attend clubs or programs that include science or engineering activities (for example, chemistry club, robotics club, or coding programs)	<b>®</b>	0	0	0	<b>©</b>	VH618991	programs that include science or engineering activities (for example chemistry club, robotics club, or coding programs)	Ø	<b>©</b>	0	00	0	VHRVRZAG		and c have been chang to past ten		
2018 Grade 8)  9. How much does each	of the fellow					Alletantic	Issue: Student Fac			. J			ystem11		NC	NC	for consistency with the ite stem.
choice on each row.	of the follow	wing statemen	is describe yo	u: select one	answer		28. How much does each o choice on each row.	of the follow	ring statement	is describe yo	ui Select one	answer		INC	IN/A		
	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me					
<ol> <li>I enjoy science activities.</li> </ol>	0	0	0	Ф	0	VHSSYNT	I enjoy science     activities.	Ø	©	0	0	Φ	VH6893)7				
<ol> <li>I look forward to my science class.</li> </ol>	(3)	•	0	Ф	Ф	VI1639120	b. I look forward to my science class.	0	0	0	0	Ф	VH689120				
. I am interested in the things I learn in science class.	۵	0	0	0	Φ	Y11649122	c. I am interested in the things I learn in science class.	<b>©</b>	•	0	0	0	V14639122				
<ol> <li>I think making an effort in science class is worthwhile.</li> </ol>	0	(1)	0	0	0	VH639125	d. I think making an effort in science class is worthwhile.	•	•	0	6	θ	VH699155				
	0	Φ	0	0	Ф	VHesser27	e. I think science will help me even when I am not in school.	0	0	0	Ф	θ	VH639117				
e. I think science will help me even when I am not in school. f. I think it is important				0			f. I think it is important							1			

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

					2019	Оре	rational Grade	8 Scie	nce Sti	udent					
Previous item							2019 item							D/A/ R/NC+	Rationale
10. In this school year, ho class? Select one answ			following activ	ties in your	science	VH639733	29. In this school year, ho class? Select one answ			following activ	ities in your	science	VH639733	NC	N/A
	Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always			Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always			
Came up with     research questions to     explore how     something works	0	<b>®</b>	0	0	0	VH639744	a. Came up with research questions to explore how something works	0	(8)	0	•	•	VH639744		
<ul> <li>Made drawings that explain why or how something happens</li> </ul>	0	<b>(D)</b>	O	Φ	•	VH639749	b. Made drawings that explain why or how something happens	0	0	0	Φ	0	VH639749		
c. Came up with experiments that you could use to answer a research question	0	(3)	0	•	©	VH639753	c. Came up with experiments that you could use to answer a research question	0	(8)	0	0	0	VH639753		
d. Used tables or graphs to identify relationships between variables	0	(3)	0	Φ	0	VH639760	d. Used tables or graphs to identify relationships between variables	0	<b>®</b>	0	0	@	VH639760		
e. Used math equations to explain or support scientific conclusions	0	0	0	Φ	0	VH639763	e. Used math equations to explain or support scientific conclusions	0	(8)	0	0	0	VH639763		
f. Used evidence from experiments to explain why something happens	0	(1)	0	Φ	<b>©</b>	VH639765	f. Used evidence from experiments to explain why something	0	(3)	0	•	(1)	VH639765		
g. Used information to disagree with someone about a scientific idea	0	(3)	©	Φ	(0)	VH639770	g. Used information to disagree with someone	<b>®</b>	(1)	0	0	<b>©</b>	VH639770		
h. Combined information about science from multiple sources (for example, books, websites, or articles) for an assignment	9	•	0	Φ	•	VH639777	about a scientific idea  h. Combined information about science from multiple sources (for example, books, websites, or articles)	•	<b>®</b>	0	•	•	VH639777		
(2018 Grade 8)							Issue: Organization	on of Inst	truction						
11. How often do you talk about things you have learned in science class with someone in your family?  30. How often do you talk about things you have learned in science class with someone in your family?					class with		VH745438	N/C	N/A						
Never or hardly ever	er						<ul> <li>Never or hardly eve</li> </ul>	r							
<ul><li>Once in a while</li><li>Sometimes</li></ul>							Once in a while								
© Sometimes © Often							© Sometimes								
Very often							<ul><li>Often</li><li>Very often</li></ul>								
(2018 Grade 8)							Issue: Student Fa	ctors							

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

# **Appendix K-1ap: Operational Grade 8 Science**

**22.** In your science class this year, how often have you done hands-on activities or projects on any of the following topics? Select **one** answer choice on each row.

		Never or hardly ever	Once in a while	Sometimes	Often	Very often	
a.	Living things (for example, plants, animals, or bacteria)	<b>(</b> A)	®	0	0	Œ	VH639072
b.	Electricity (for example, circuits, batteries, or light bulbs)	(4)	®	0	Φ	(£)	VH639074
c.	Chemicals (for example, vinegar, baking soda, or hydrogen peroxide)	(4)	<b>®</b>	0	•	©	VH639073
d.	Rocks or minerals (for example, diamond, iron, or lava rock)	<b>(</b> A)	®	0	0	Œ	VH639077
e.	Technology and engineering (for example, robots, pulley systems, or ramps)	(9)	®	0	Φ	<b>(</b>	VH639076

**23.** In your science class this year, how often have you done each of the following activities? Select **one** answer choice on each row.

		Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always	
a.	Read from a science textbook (print or digital)	<b>(A)</b>	®	©	0	Œ	VH639313
b.	Read a book or magazine (print or digital) about science topics	<b>®</b>	®	0	Φ	Œ	VH639315
c.	Used the Internet to learn about science topics	<b>(A)</b>	®	0	0	Œ	VH639314
d.	Watched a short video clip, movie, or video about science topics	(A)	®	0	0	Œ	VH639312
e.	Used a magnifying glass or microscope	<b>(A)</b>	®	0	0	Œ	VH887984
f.	Used a thermometer or weighing scale for making measurements	<b>(A)</b>	®	0	0	Œ	VH639078

**24.** Thinking about science, do you think that you would be able to do each of the following activities? Select **one** answer choice on each row.

	I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a. Describe how the length of a vibrating string affects the sound it makes	, B	®	0	0	©	VH638870
b. Design an experime to show how sunlig affects the growth of a plant		®	0	Φ	©.	VH638872
c. Describe what would happen to the number of frogs at a pond if the insects were removed from the pond	oer	®	0	Φ	Œ	VH638876
d. Decide which tool t use if you want to measure wind speed	(A)	®	©	0	Œ	VH638883

**25.** How much does each of the following statements describe you? Select **one** answer choice on each row.

VH639079

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I want other students to think I am good at science.	<b>(A)</b>	®	0	0	©.	VH639080
b.	I want to show others that science schoolwork is easy for me.	(4)	®	0	Θ	<u>©</u>	VH639082
c.	I want to look smart in comparison to the other students in my science class.	(4)	<b>®</b>	0	Θ	<b>©</b>	VH639084
d.	I want to get better grades than most other students in my science class.	<b>(</b> A)	<b>®</b>	0	0	©	VH860366

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I want to learn as much as possible in my science class.	<b>(A)</b>	®	0	0	©.	VH639086
b.	I want to become better in science this year.	(8)	®	0	0	©.	VH639087
c.	I want to understand as much as I can in my science class.	(8)	®	0	0	Œ	VH639089
d.	I want to master a lot of new skills in my science class.	<b>(A)</b>	(8)	0	0	Œ	VH860369

VH638951

**27.** In this school year, how often have you done each of the following activities **outside of school**? Select **one** answer choice on each row.

		Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
	Worked on science-related projects (for example, making a volcano, growing plants from seeds, or building simple rockets)	<b>®</b>	®	©	Φ	©.	VH859162
b.	Used scientific tools (for example, microscopes, thermometers, beakers, or weighing scales)	<b>®</b>	®	©	Φ	©.	VH891927
c.	Read about science topics in books or magazines (print or digital)	(8)	®	0	0	©.	VH638987
d.	Attended clubs or programs that include science or engineering activities (for example chemistry club, robotics club, or coding programs)	<b>(</b>	®	0	•	Œ	VH893268

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I enjoy science activities.	A	®	0	0	Œ	VH639117
b.	I look forward to my science class.	(4)	B	0	0	Œ	VH639120
c.	I am interested in the things I learn in science class.	(A)	®	0	0	Œ	VH639122
d.	I think making an effort in science class is worthwhile.	(8)	®	0	0	Œ	VH639125
e.	I think science will help me even when I am not in school.	(A)	®	0	0	Œ	VH639127
f.	I think it is important to do well on science assignments.	(A)	®	0	0	Œ	VH639128

**29.** In this school year, how often have you done the following activities in your science class? Select **one** answer choice on each row.

		Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always	
a.	Came up with research questions to explore how something works	(8)	(B)	0	(1)	Œ	VH639744
b.	Made drawings that explain why or how something happens	<b>(</b> A)	®	0	0	Œ	VH639749
c.	Came up with experiments that you could use to answer a research question	(4)	®	0	Θ	(	VH639753
d.	Used tables or graphs to identify relationships between variables	(4)	®	0	Φ	Œ	VH639760
e.	Used math equations to explain or support scientific conclusions	<b>(A)</b>	®	0	0	Œ	VH639763
f.	Used evidence from experiments to explain why something happens	(8)	®	0	0	Œ	VH639765
g.	Used information to disagree with someone about a scientific idea	<b>(A)</b>	®	0	0	Œ	VH639770
h.	Combined information about science from multiple sources (for example, books, websites, or articles) for an assignment	(8)	®	0	(1)	Œ	VH639777

- **30.** How often do you talk about things you have learned in science class with someone in your family?
  - Never or hardly ever
  - ® Once in a while
  - © Sometimes
  - Often
  - © Very often

### Appendix K-1aq: Summary of Changes Operational Grade 12 Science

2019 Օր	perational Grade 12 Science Stude	ent	
Previous item	2019 item	D/A/ R/NC+	Rationale
1. In this school year, how often have you understood what the teacher talks about in science class?  ② Never or hardly ever  ① Once in a while  ② Sometimes  ③ Often  ① Always or almost always  (2018 Grade 12)	N/A	D	Due to overlap with new content and to keep student burden low, this item was dropped.
	N/A	D	Due to overlap with new content and to keep student burden low, this item was dropped.
3. In this school year, how often have you done well on your science assignments (for example, projects, homework, or worksheets)?  ① Never or hardly ever ① Once in a while ② Sometimes ② Often ② Always or almost always  (2018 Grade 12)	N/A	D	Due to overlap with new content and to keep student burden low, this item was dropped.

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

revious item							2019 item							D/A/ R/NC+	Rationale
4. In your science class to projects on any of the	this year, how following top	often have yo	u done hands-o e answer choice	n activities on each ro	or w.	V186.74071	28. In your science class to projects on any of the						V14630071	NC	N/A
	Never or hardly ever	Once in a while	Sometimes	Often	Very often			Never or hardly ever	Once in a while	Sometimes	Often	Very often			
Living things (for example, plants, animals, or bacteria)	0	0	0	Φ	0	VH639072	Living things (for example, plants, animals, or bacteria)	(8)	0	Φ	Φ	Θ	VHA39072		
Electricity (for example, circuits, batteries, or light bulbs)	8	Œ	0	0	θ	V18G0074	b. Electricity (for example, circuits, batteries, or light bulbs)	00	0	0	0	θ	V8668074		
Chemicals (for example, vinegar, baking soda, or hydrogen peroxide)	9	Θ	0	Ф	0	VH639073	c. Chemicals (for example, vinegar, baking soda, or hydrogen peroxide)	0	0	0	0	Ф	VH6.99073		
Rocks or minerals (for example, diamond, iron, or lava rock)	Φ	Φ	0	Φ	0	¥1639077	d. Rocks or minerals (for example, diamond, iron, or lava rock)	0	0	0	0	Φ	V21619077		
Technology and								-	-						
engineering (for example, robots, pulley systems, or ramps)	<b>©</b>	Φ	Φ	•	Φ	V186390775	e. Technology and engineering (for example, robots, pulley systems, or ramps)  Issue: Organizatio	on of Inst	truction	0	Ф	Ф	¥намоль		
engineering (for example, robots, pulley systems, or ramps)	this year, how	often have yo				VH639076	engineering (for example, robots, pulley systems, or ramps)	on of Inst	truction				VH039076	R	
engineering (for example, robots, pulley systems, or ramps)  018 Grade 12)  5. In your science class to	this year, how	often have yo					engineering (for example, robots, pulley systems, or ramps)  Issue: Organizatio  29. In your science class to	on of Inst	truction					R	wording based on
engineering (for example, robots, pulley systems, or ramps)  018 Grade 12)  5. In your science class to	this year, how answer choice Never or	often have yo on each row.	u done each of	the followin	Always or almost		engineering (for example, robots, pulley systems, or ramps)  Issue: Organizatio  29. In your science class to	on of Inst	truction often have yo on each row,	u done each of	the followin	Always or almost		R	wording based on
engineering (for example, robots, pulley systems, or ramps)  018 Grade 12)  5. In your science class t activities? Select one Read from a science textbook (print or	his year, how answer choice Never or hardly ever	often have yo on each row. Once in a while	u done each of	the followin	Always or almost always	V3829911	engineering (for example, robots, pulley systems, or ramps)  Issue: Organization  29. In your science class the activities? Select one activities? Select one detection of the content of	on of Inst his year, how unswer choice Never or hardly ever	often have yo on each row.	u done each of	the followin Often	Always or almost always	VH69011	R	wording based on stakeholde feedback, sub-item e
engineering (for example, robots, pulley systems, or ramps)  O18 Grade 12)  5. In your science class t activities? Select one exactivities? Select one textbook (print or digital)  Read a book or magazine (print or digital) about science	this year, how answer choice Never or hardly ever	often have yo on each row. Once in a while	ou done each of  Sometimes	often	Always or almost always	Asersara	engineering (for example, robots, pulley systems, or ramps)  Issue: Organization  29. In your science class the activities? Select one ac	on of Inst his year, how unswer choice Never or hardly ever	often have yo on each row.	u done each of  Sometimes	Often	Always or almost always	VII69911	R	wording based on stakeholde feedback, sub-item e
engineering (for example, robots, pulley systems, or ramps)  O18 Grade 12)  5. In your science class t activities? Select one details and a science textbook (print or digital)  Read a book or magazine (print or digital) about science topics  Used the Internet to learn about science topicare topicare topicare topicare details and the science topicare to	his year, how answer choice Never or hardly ever	often have yo on each row.  Once in a while	u done each of  Sometimes  ©	Often	Always or almost always	Asersara	engineering (for example, robots, pulley systems, or ramps)  Issue: Organization  29. In your science class the activities? Select one ac	on of Inst his year, how unswer choice Never or hardly ever	often have yo on each row.  Once in a while	u done each of Sometimes	often  Often	Always or almost always	VH699113	R	based on stakeholde
engineering (for example, robots, pulley systems, or ramps)  O18 Grade 12)  5. In your science class t activities? Select one.  Read from a science textbook (print or digital)  Read a book or magazine (print or digital) about science topics  Used the Internet to learn about science topics  Watched a short video clip, movie, or video	chis year, how answer choice  Never or hardly ever	often have yo on each row.  Once in a while	u done each of  Sometimes  ©  ©	Often	Always or almost always	V28639315 V28639315 V28639315	engineering (for example, robots, pulley systems, or ramps)  Issue: Organizatic  29. In your science class the activities? Select one act	on of Insi	often have yo on each row.  Once in a while	u done each of Sometimes	Often	Always or almost always	VH63931A VH639315 VH639314	R	wording based on stakeholde feedback, sub-item e

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

revious item								2019 item								D/A/ R/NC+	Rationale
Which courses hav than once, give the INCLUDE courses as part of a longer	most recen taken in su	t year you to	ook it. Select	one answer	choice on e	ach row.		24. Which courses have than once, give the INCLUDE courses as part of a longer	most recer taken in su	t year you to	ook it. Select	one answer	choice on e	ach row.		R	The "Other (Please specify)"
	I did not take this course.	I took this course in Grade 8.	I took this course in Grade 9.	I took this course in Grade 10.	I took this course in Grade 11.	I am taking or have taken this course in Grade 12.			I did not take this course.	I took this course in Grade 8.	I took this course in Grade 9.	I took this course in Grade 10.	I took this course in Grade 11.	I am taking or have taken this course in Grade 12.			response option was removed. This
a. General science	Ø	(1)	0	0	<b>(D)</b>	©	VH241150	a. General science	<b>®</b>	00	0	0	Φ	Ф	VH241150		
b. First-year biology	0	0	0	0	0	©	VH241151	b. First-year biology	0	0	0	•	Φ	Θ	VED41151		response
c. Second-year biology d. Life science (other	0	•	0	0	•	Ð	VH241159	c. Second-year biology	•	•	0	0	Φ	Φ	V182411.09		option is only
than biology)	Ø	(1)	0	Φ	<b>©</b>	©	VH241148	d. Life science (other than biology)	<b>®</b>	•	0	0	Ф	Θ	V18241148		used in pilot
chemistry f. Second-year	@	•	0	0	0	Ð	VH241154	e. First-year chemistry	•	0	0	0	0	0	V31041164		administrations.
chemistry	●	(8)	0	0	0	Ð	VH241155	f. Second-year chemistry	0	0	0	0	0	0	VH241155		113.
g. First-year physics	•	(8)	0	0	(1)	Ð	VH241156	g. First-year physics	<b>©</b>	0	0	0	Ф	Ф	VH24)156		
h. Second-year physics	<b>®</b>	(8)	0	0	<b>©</b>	Ð	VH241157	h. Second-year physics	0	•	0	0	0	Ф	V34941167		
i. Physical science (other than chemistry or physics)	<b>®</b>	ⅎ	0	•	<b>©</b>	Œ	VH241149	Physical science (other than chemistry or	Φ	Φ	0	0	Φ	Œ	VH241149.		
<ul> <li>Earth and space science</li> </ul>	<b>®</b>	•	0	0	0	Ø	VH241147	j. Earth and space	0	•	0	0	Φ	Φ.	VH241147		
k. Engineering and technology	Ø	(1)	0	Ф	0	Œ	VH241158	k. Engineering and	0	100	0	0	Φ	70	VHD41158		
I. Other science course (Please specify):	0	•	0	Θ	<b>®</b>	<b>(</b>	VH241153	technology	Φ	00	9		Φ	Ф	X15241158		
2018 Grade 12	2)							Issue: Organiza	ition of	Instruc	tion						
. Are you currently en	rolled in or	have you ta	ken any onl	ine science	courses for		VH240111	25. Are you currently on high school or colle		r have you t	aken any on	line science	courses for		VH240111	NC	N/A
Yes	o Mariana							© Yes	20.00								
® No								© No									
O INO								CD INO								1	

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

2019 Oper	rational Grade 12 Science Student		
Previous item	2019 item	D/A/ R/NC+	Rationale
8. Are you currently enrolled in or have you taken an Advanced Placement® course in science? Select all that apply.	26. Are you currently enrolled in or have you taken an Advanced Placement <sup>®</sup> course in science? Select all that apply.	NC	N/A
Yes, I am enrolled in or have taken Advanced Placement Biology.	Yes, I am enrolled in or have taken Advanced Placement Biology.		
Yes, I am enrolled in or have taken Advanced Placement Environmental Science.	Yes, I am enrolled in or have taken Advanced Placement Environmental Science.		
Yes, I am enrolled in or have taken Advanced Placement Chemistry.	Yes, I am enrolled in or have taken Advanced Placement Chemistry.		
Tes, I am enrolled in or have taken Advanced Placement Physics C.	Tes, I am enrolled in or have taken Advanced Placement Physics C.		
Yes, I am enrolled in or have taken Advanced Placement Physics 1.	Tes, I am enrolled in or have taken Advanced Placement Physics 1.		
Yes, I am enrolled in or have taken Advanced Placement Physics 2.	Tyes, I am enrolled in or have taken Advanced Placement Physics 2.		
Yes, I am enrolled in or have taken Advanced Placement Computer Science A.	Tes, I am enrolled in or have taken Advanced Placement Computer Science A.		
Yes, I am enrolled in or have taken Advanced Placement Computer Science Principles.	Yes, I am enrolled in or have taken Advanced Placement Computer Science Principles.		
→ No, 1 have never taken an Advanced Placement science course.	No, I have never taken an Advanced Placement science course.		
(2018 Grade 12)	Issue: Organization of Instruction		
AMMIT	VH2491	NC	N/A
9. Are you currently taking a science course?	27. Are you currently taking a science course?	'''	'','
© Yes	© Yes		
Φ No	© No	4	
(2018 Grade 12)	Issue: Organization of Instruction		

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item							2019 item							D/A/ R/NC+	Rationale
10. Thinking about science following activities? S				o do each of th	ne	VH651609	35. Thinking about science following activities? So				o do each of th	ie	VH631609	R	Due to a lack of response
	I definitely can't	I probably can't	Maybe	I probably can	I definitely can			I definitely can't	I probably can't	Maybe	I probably	I definitely can			variability an
a. Describe different     ways to heat or cool     water  b. Describe how the	0	3	0	0	Ð	VH638868	Describe how the length of a vibrating string affects the sound it makes	<b>®</b>	<b>®</b>	0	Ф	Ф	V#638870		to keep student
length of a vibrating string affects the sound it makes	<b>③</b>	<b>®</b>	0	0	Φ	VH638870	b. Design an experiment to show how sunlight affects the growth	0	©	0	Ф	Ф	V98/38972		burden low, sub-items a,
<li>Design an experiment to show how sunlight affects the growth of a plant</li>	(9)	(3)	0	Φ	Ф	VH638872	of a plant c. Decide which tool to use if you want to measure wind speed	•	•	0	0	Ф	V21618383		d, e, f, and g
d. Use examples to show how one living thing has helped another to survive	<b>®</b>	(3)	0	•	Ð	VH638875	d. Design an experiment to test how the growth of a plant is affected by	<b>©</b>	Œ)	0	Φ	Ф	VH638877		were dropped.
e. Describe what would happen to the number of frogs at a pond if all the insects were removed from the pond	•	•	0	0	Φ	VH638876	light, water, and soil quality e. Create a diagram that shows how bees and plants need each other for survival	•	Φ	0	Φ	Ф	VHASSK78		
f. Decide which tool to use if you want to measure wind speed	0	<b>®</b>	0	Φ	<b>®</b>	VH638883	f. Describe how the combination of parental genes can								
g. Describe why the weather in the summer is different than in the winter	•	(1)	0	0	Φ	VH638885	result in different traits in their offspring (for example, eye or hair color)	Ø	⊕	0	0	0	V846.389.70		
h. Design an experiment to test how the growth of a plant is affected by light, water, and soil quality	0	•	0	Φ	Φ	VH638877									
Create a diagram that shows how bees and plants need each other for survival	•	•	0	•	Φ	VH638878									
j. Describe how the combination of parental genes can result in different traits in their offspring (for example, eye or hair color)	<b>③</b>	<b>③</b>	0	Ф	<b>©</b>	VH638879									

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item							2019 item							D/A/ R/NC+	Rationale
<ol> <li>How much does each choice on each row.</li> </ol>	of the follow	ving statemen	ts describe yo	ou? Select one	answer	VIII.78779	<ol><li>How much does each choice on each row.</li></ol>	of the follow	ing statement	ts describe yo	u? Select one	answer	VH620070	R	This item was
I - I	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	100		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			two items to
I want other students to think I am good at science.	0	(3)	0	0	θ	VIIIGIONO	a. I want other students to think I am good at science.	Φ	(3)	0	0	Ф	VENCENDED		reduce scrolling and
b. I want to show others that science schoolwork is easy for me.	Φ	0	Φ	9	Θ	VH639082	b. I want to show others that science schoolwork is easy for me.	•	•	9	Φ	θ	VH639062		align presentation
<li>I want to look smart in comparison to the other students in my science class.</li>	0	Θ	0	9	θ	V74639084	c. I want to look smart in comparison to the other students in my science class.	Φ	(1)	0	0	Ф	VH639084		with similar items in othe
d. I want to get better science grades than most other students in my class.	<b>@</b>	0	0	6	0	VH772329	d. I want to get better grades than most other students in my science	Φ	(3)	9	Φ	Ф	VH80366		subjects.
e. I want to learn as much as possible in my science class.	Ø	0	0	0	0	VH639066	class.						Ш		Additionally, the wording
f. I want to become better in science this year.	Φ	Ф	0	Φ.	Φ	VHOMONT	<ol><li>How much does each choice on each row.</li></ol>	of the follow	ving statemen	ts describe yo	u? Select one	answer	VIB(50)35		of sub-items d and h (now
g. I want to understand as much as I can in my science class.	@	Ф	0	0	0	V11639089		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			sub-item d in
h. I want to master a lot of new science skills in my class.	Ф	Φ	0	9	Ф	V10732430	<ul> <li>a. I want to learn as much as possible in my science class.</li> </ul>	0	<b>®</b>	0	0	0	V31639086		the second matrix) have
							b. I want to become better in science this year.	<b>Ø</b>	•	0	0	Φ	V266330117		been revised,
							<ul> <li>I want to understand as much as I can in my science class.</li> </ul>	3	0	0	0	Φ	V18639089		with the word "science"
							d. I want to master a lot of new skills in my science class.	Ø	Ф	0	Ф	Ф	VERNALIJANO		moved to before the

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item							2019 item							D/A/ R/NC+	Rationale
12. In this school year, ho of school? Select one			of the follow	ng activities	outside	VII638031	34. In this school year, hos of school? Select one a	w often have nswer choice	you done each on each row.	of the follow	ng activities (	outside	V186/9951	R	Due to a lac
	Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day			variability a
a. Work on science-related projects (for example, making a volcano, growing plants from seeds, or building simple rockets)	Ø.	Ф	0	θ	Ф	V21/48/970	a. Worked on science-related projects (for example, making a volcano, growing plants from seeds, or building simple rockets)	<b>®</b>	Φ	9	0	θ	VHISIVIAE		to keep student burden low sub-item b
o. Write or blog about science topics	0	Ф	0	0	Θ	VHIGHER	b. Used scientific tools								was dropp
c. Use scientific tools (for example, microscopes, thermometers, beakers, or weighing scales)	<b>®</b>	.00	0	0	Ф	Ystraeins	(for example, microscopes, rhermometers, beakers, or weighing scales) c. Read about science	Φ	Ф	0	Ф	Φ	VHR01927		Additional the verbs a the beginn
d. Read about science topics in books or magazines (print or digital)	Φ	Ф	0	Ф	Φ	V210/18/87	topics in books or magazines (print or digital) d. Attended clubs or	0	•	0	0	Ф	V18638907 V1809209		of the orig
c. Attend clubs or programs that include science or engineering activities (for example, chemistry club, robotics club, or coding programs)	49	₲	0	•	Ф	V31036993	programs that include science or engineering activities (for example chemistry club, robotics club, or coding programs)	Φ	0	0	0	Φ			sub-items and c have been char to past te
2018 Grade 12)	of the follow	ving statemen	ts describe yo	u? Select one	answer	viscosity.	Issue: Student Fa  33. How much does each choice on each row,		ving statemen	ts describe yo	u? Select one	answer	VHANUIS	NC	for consistenc with the its stem.
<ol><li>How much does each choice on each row.</li></ol>		A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me			Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	10		
	Not at all like me	nke me					a. I enjoy science		1102	0	Φ	Φ	V1639117		
choice on each row.	Not at all like me	Ф	0	0	0	V11639117	activities	(3)	0	4		1.4.7		1	
choice on each row.  a. I enjoy science activities.	like me		0	9 9	Ø	VH639117	b. I look forward to my	<b>®</b>	<b>®</b>	0	0	Φ	V11639120		
a. I enjoy science activities. b. I look forward to my science class. c. I am interested in the things I learn in science class.	like me	<b>®</b>		7 - 67 - 1		100000			100		0		VH639120 VH639122		
a. I enjoy science activities. b. I look forward to my science class. c. I am interested in the things I learn in science class. d. I think making an effort in science class is worthwhile.	like me	© (D	0	0	Ф	VHA39120	b. I look forward to my science class.      c. I am interested in the things I learn in	<b>®</b>	<b>(D)</b>	0		Φ			
a. I enjoy science activities. b. I look forward to my science class. c. I am interested in the things I learn in science class. d. I think making an effort in science class	like me	© ©	0	0	6	VHA39120	b. I look forward to my science class. c. I am interested in the things I learn in science class. d. I think making an effort in science class	<b>®</b>	6	0	0	Φ	VH639122		

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

N/A	NC	VH639733	science					2019 item							Previous item
				ties in your	ollowing activit			30. In this school year, ho class? Select one answ	VH639733	science	ities in your	following activ			14. In this school year, how class? Select one answer
			Always or almost always	Often	Sometimes	Once in a while	Never or hardly ever			Always or almost always	Often	Sometimes	Once in a while	Never or hardly ever	
		VH639744	(0)	Φ	0	(3)	<b>®</b>	a. Came up with research questions to explore how something works	VH639744	•	Φ	0	(8)	0	a. Came up with research questions to explore how something works
		VH639749	©	0	0	(1)	<b>®</b>	b. Made drawings that explain why or how something happens	VH639749	0	•	0	(1)	<b>(</b>	b. Made drawings that explain why or how something happens
		VH639753	<b>©</b>	•	0	(6)	0	c. Came up with experiments that you could use to answer a research question	VH639753	•	0	0	•	00	c. Came up with experiments that you could use to answer a research question
		VH639760	©	0	0	(6)	<b>®</b>	d. Used tables or graphs to identify relationships between variables	VH639760	•	•	0	₿	<b>®</b>	d. Used tables or graphs to identify relationships between variables
		VH639763	©	0	©	(8)	<b>®</b>	e. Used math equations to explain or support scientific conclusions	VH639763	O	•	0	•	<b>(</b>	e. Used math equations to explain or support scientific conclusions
		VH639765	•	<b>©</b>	0	<b>®</b>	0	f. Used evidence from experiments to explain why something	VH639765	•	•	0	(1)	Φ	f. Used evidence from experiments to explain why something happens
		VH639770	<b>©</b>	0	0	(8)	<b>®</b>	happens g. Used information to disagree with someone	VH639770	©	•	©	(8)	0	g. Used information to disagree with someone about a scientific idea
		VH639777	©	Φ	0	•	•	about a scientific idea  h. Combined information about science from multiple sources (for example, books, websites, or articles)	VH639777	•	Φ	0	•	•	h. Combined information about science from multiple sources (for example, books, websites, or articles) for an assignment
						ruction	on of Inst	Issue: Organization							2018 Grade 12)
N/A	N/C	VIII:39871				in science?	oursue a career	37. How likely are you to p	VMaSHR71				in science?	oursue a career	5. How likely are you to p
								<ul> <li>Not at all likely</li> </ul>							Not at all likely
								Not likely							Not likely
								Somewhat likely							Somewhat likely
								Quite likely							
	N/C	VHA39777	0	<b>©</b>	0	ruction	on of Inst	h. Combined information about science from multiple sources (for example, books, websites, or articles) for an assignment  Issue: Organization  Not at all likely  Not likely  Somewhat likely	VHa39777 VHa998871	•	Φ	•			about science from multiple sources (for example, books, websites, or articles) for an assignment  2018 Grade 12)  15. How likely are you to p  Not at all likely  Not likely

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item				2019 item				D/A/ R/NC+	Rationale
16. In this school year, have you done any of the fo career in science? Select one answer choice on		prepare for a	V19/40721	38. In this school year, have you done any of the career in science? Select one answer choice of	following activities to n each row.	prepare for a	VH6-0721	R	To keep student
	Yes	No			Yes	No			burden low
a. Attended a career fair	<b>®</b>	0	VH6407.89	a. Spoken with a guidance counselor or	<b>®</b>	· @	VH640754		
<ul> <li>Answered questions on a career interest survey (for example, the Vocational-Interest Inventory, the Career Interest Test, or the Strong Interest Inventory<sup>®</sup>)</li> </ul>	•	Ф	VI6640746	teacher about science-related careers b. Spoken with a guidance counselor or teacher about science-related college programs	•	Φ	V21640757		b, c, d, e, h,
c. Taken a science course in addition to what you need to graduate	<b>®</b>	0	VI1640748	c. Shadowed a person who does science-related work at his or her job	0	•	VII640773		and k were
d. Collected information about science-related careers on your own	⊕	0	VH640749	d. Worked as an intern or employee doing science-related work	0	(D)	VH640773		dropped.
e. Collected information about science-related college programs on your own	0	0	VH640750	Service-related work					
f. Spoken with a guidance counselor or teacher about science-related careers	0	00	V34040754						
g. Spoken with a guidance counselor or teacher about science-related college programs	Ø	0	N16407A7						
h. Spoken with a family member or family friend who works in a scientific field about his or her job	<b>©</b>	Ф	V3564075R						
i. Shadowed a person who does science-related work at his or her job	0	0	VH640771						
j. Worked as an intern or employee doing science-related work	0	•	V11640773						
k. Other (Please specify):	0	Ф	VH640776						
2018 Grade 12)				Issue: Student Factors					
How often do you talk about things you have lesomeone in your family?	arned in science cla	ss with	VH74343H	36. How often do you talk about things you have someone in your family?	learned in science cla	ss with	VHPASASS	NC	N/A
Never or hardly ever				Never or hardly ever					
Once in a while				D Once in a while					
© Sometimes				© Sometimes					
© Often				Often					
⊕ Very often				© Very often					
2010 Crada 12\									
(2018 Grade 12)				Issue: Student Factors				1	I

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

## **Appendix K-1ar: Operational Grade 12 Science**

**24.** Which courses have you taken from eighth grade to the present? If you have taken a course more than once, give the most recent year you took it. Select **one** answer choice on each row. INCLUDE courses taken in summer school, but DO NOT INCLUDE topics that were only taught as part of a longer course.

		I did not take this course.	I took this course in Grade 8.	I took this course in Grade 9.	I took this course in Grade 10.	I took this course in Grade 11.	I am taking or have taken this course in Grade 12.	
a.	General science	(A)	®	©	0	Œ	Ð	VH241150
b.	First-year biology	(4)	®	©	0	Œ)	Ð	VH241151
c.	Second-year biology	(A)	®	0	0	Œ	Ð	VH241159
d.	Life science (other than biology)	A	®	0	0	Ē	(Ē)	VH241148
e.	First-year chemistry	A	®	©	0	Ē	(Ē)	VH241154
f.	Second-year chemistry	A	®	0	0	Ē	(Ē	VH241155
g.	First-year physics	(A)	®	©	0	Œ	Ð	VH241156
h.	Second-year physics	A	®	0	0	Ē	(Ē)	VH241157
i.	Physical science (other than chemistry or physics)	<b>(</b> A)	®	0	0	©	(°	VH241149
j.	Earth and space science	(A)	®	0	0	Ē	(F)	VH241147
k.	Engineering and technology	A	®	©	0	Ē	(F)	VH241158

- **25.** Are you currently enrolled in or have you taken any online science courses for high school or college credit?
  - A Yes
  - ® No

- **26.** Are you currently enrolled in or have you taken an Advanced Placement<sup>®</sup> course in science? Select **all** that apply.
  - ① Yes, I am enrolled in or have taken Advanced Placement Biology.
  - ® Yes, I am enrolled in or have taken Advanced Placement Environmental Science.
  - © Yes, I am enrolled in or have taken Advanced Placement Chemistry.
  - Tes, I am enrolled in or have taken Advanced Placement Physics C.
  - © Yes, I am enrolled in or have taken Advanced Placement Physics 1.
  - © Yes, I am enrolled in or have taken Advanced Placement Physics 2.
  - © Yes, I am enrolled in or have taken Advanced Placement Computer Science A.
  - Tes, I am enrolled in or have taken Advanced Placement Computer Science Principles.
  - O No, I have never taken an Advanced Placement science course.

- **27.** Are you currently taking a science course?
  - A Yes
  - ® No

**28.** In your science class this year, how often have you done hands-on activities or projects on any of the following topics? Select **one** answer choice on each row.

	Never or hardly ever	Once in a while	Sometimes	Often	Very often	
a. Living things (for example, plants, animals, or bacteria)	Ø	®	0	0	Œ	VH639072
b. Electricity (for example, circuits, batteries, or light bulbs)	<b>(A)</b>	®	©	0	©.	VH639074
c. Chemicals (for example, vinegar, baking soda, or hydrogen peroxide)	<b>®</b>	®	0	0	Œ	VH639073
d. Rocks or minerals (for example, diamond, iron, or lava rock)	<b>(A)</b>	(8)	0	0	Œ	VH639077
e. Technology and engineering (for example, robots, pulley systems, or ramps)	<b>(</b>	®	0	0	(£)	VH639076

**29.** In your science class this year, how often have you done each of the following activities? Select **one** answer choice on each row.

		Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always	
a.	Read from a science textbook (print or digital)	<b>(A)</b>	®	©	0	Œ	VH639313
b.	Read a book or magazine (print or digital) about science topics	<b>®</b>	®	0	0	©	VH639315
c.	Used the Internet to learn about science topics	<b>(A)</b>	®	0	0	Œ	VH639314
d.	Watched a short video clip, movie, or video about science topics	<b>(A)</b>	®	0	0	Œ	VH639312
e.	Used a magnifying glass or microscope	A	®	0	0	Œ	VH887984
f.	Used a thermometer or weighing scale for making measurements	<b>(A)</b>	®	0	0	Œ	VH639078

**30.** In this school year, how often have you done the following activities in your science class? Select **one** answer choice on each row.

		Never or hardly ever	Once in a while	Sometimes	Often	Always or almost always	
a.	Came up with research questions to explore how something works	(8)	®	0	0	Œ	VH639744
b.	Made drawings that explain why or how something happens	<b>(</b> A)	®	0	0	Œ	VH639749
c.	Came up with experiments that you could use to answer a research question	(9)	®	0	0	Œ	VH639753
d.	Used tables or graphs to identify relationships between variables	(9)	®	©	Φ	Œ	VH639760
e.	Used math equations to explain or support scientific conclusions	(A)	®	0	0	Œ	VH639763
f.	Used evidence from experiments to explain why something happens	<b>®</b>	®	0	0	Œ	VH639765
g.	Used information to disagree with someone about a scientific idea	(8)	®	0	0	Œ	VH639770
h.	Combined information about science from multiple sources (for example, books, websites, or articles) for an assignment	(8)	®	©	<b>©</b>	Œ	VH639777

**31.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I want other students to think I am good at science.	<b>®</b>	®	©	0	Œ	VH639080
b.	I want to show others that science schoolwork is easy for me.	(4)	®	0	0	(h	VH639082
c.	I want to look smart in comparison to the other students in my science class.	(4)	®	0	0	(i)	VH639084
d.	I want to get better grades than most other students in my science class.	(4)	®	0	0	©	VH860366

**32.** How much does each of the following statements describe you? Select **one** answer choice on each row.

		Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a.	I want to learn as much as possible in my science class.	<b>®</b>	®	0	0	©.	VH639086
b.	I want to become better in science this year.	<b>(A)</b>	®	0	0	©	VH639087
c.	I want to understand as much as I can in my science class.	<b>(A)</b>	®	0	0	©	VH639089
d.	I want to master a lot of new skills in my science class.	<b>®</b>	®	0	0	©	VH860369

**33.** How much does each of the following statements describe you? Select **one** answer choice on each row.

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Exactly like me	
a. I enjoy science activities.	(A)	®	0	0	Œ	VH639117
b. I look forward to my science class.	(A)	®	0	0	Œ	VH639120
c. I am interested in the things I learn in science class.	(A)	®	0	0	Œ	VH639122
d. I think making an effort in science class is worthwhile.	(A)	(8)	0	0	Œ	VH639125
e. I think science will help me even when I am not in school.	(A)	®	0	0	Œ	VH639127
f. I think it is important to do well on science assignments.	<b>(A)</b>	®	0	0	Œ	VH639128

**34.** In this school year, how often have you done each of the following activities **outside of school**? Select **one** answer choice on each row.

		Never	About once or twice a year	About once or twice a month	About once or twice a week	Every day or almost every day	
a.	Worked on science-related projects (for example, making a volcano, growing plants from seeds, or building simple rockets)	<b>(</b>	®	0	0	©.	VH859162
b.	Used scientific tools (for example, microscopes, thermometers, beakers, or weighing scales)	<b>(</b> A)	®	©	<b>©</b>	Œ	VH891927
c.	Read about science topics in books or magazines (print or digital)	<b>(A)</b>	®	0	0	Œ	VH638987
d.	Attended clubs or programs that include science or engineering activities (for example chemistry club, robotics club, or coding programs)	<b>(</b> A)	(B)	0	(1)	<b>©</b>	VH893268

**35.** Thinking about science, do you think that you would be able to do each of the following activities? Select **one** answer choice on each row.

		I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a.	Describe how the length of a vibrating string affects the sound it makes	(9)	<b>®</b>	0	0	©.	VH638870
b.	Design an experiment to show how sunlight affects the growth of a plant	(4)	®	0	0	©	VH638872
c.	Decide which tool to use if you want to measure wind speed	(A)	B	0	0	Œ	VH638883
d.	Design an experiment to test how the growth of a plant is affected by light, water, and soil quality	0	<b>®</b>	0	0	Œ	VH638877
e.	Create a diagram that shows how bees and plants need each other for survival	(8)	®	0	0	Œ	VH638878
f.	Describe how the combination of parental genes can result in different traits in their offspring (for example, eye or hair color)	(4)	<b>®</b>	0	0	©	VH638879

<b>36.</b>	How often do you talk about things you have learned in science class with
	someone in your family?

- Never or hardly ever
- ® Once in a while
- © Sometimes
- Often
- © Very often

- **37.** How likely are you to pursue a career in science?
  - Not at all likely
  - ® Not likely
  - © Somewhat likely
  - Quite likely
  - © Extremely likely

VH640721

**38.** In this school year, have you done any of the following activities to prepare for a career in science? Select **one** answer choice on each row.

	Yes	No	
a. Spoken with a guidance counselo teacher about science-related care	r or eers	®	VH640754
b. Spoken with a guidance counselo teacher about science-related coll programs	r or ege 💮	®	VH640757
c. Shadowed a person who does science-related work at his or her	job	₿	VH640771
d. Worked as an intern or employee science-related work	doing	B	VH640773

## **Appendix K-1as: Summary of Changes Operational Grade 4 NIES**

Previous item	2019 item	D/A/ R/NC+	Rationale
1. How much do you know about your American Indian tribe or Alaska Native group? For example, you may know about the history, traditions, or arts and crafts of your tribe or group.  Nothing A little Some	1. How much do you know about your American Indian tribe or Alaska Native group? For example, you may know about the history, traditions, or arts and crafts of your tribe or group.  Nothing A little Some A lot		N/A
2. Who taught you most of what you know about American Indian or Alaska Native history?  Description No one has taught me about American Indian or Alaska Native history.  Family members  Friends  Teachers  Tribal representatives or elders  Some else (please specify):	2. Who taught you most of what you know about American Indian or Alaska Native history?  No one has taught me about American Indian or Alaska Native history.  Family members  Friends  Teachers  Tribal representatives or elders  Someone else (please specify):	NC NC	N/A
3. Who taught you most of what you know about American Indian or Alaska Native traditions (ways of life, customs)?  ① No one has taught me about American Indian or Alaska Native traditions.  ① Family members  ① Friends  ② Teachers  ① Tribal representatives or elders  ① Some clse (please specify):  (2015 Grade 4)	3. Who taught you most of what you know about American Indian or Alaska Native traditions (ways of life, customs)?  ① No one has taught me about American Indian or Alaska Native traditions.  ① Family members  ② Friends  ① Teachers  ① Tribal representatives or elders  ② Someone else (please specify);	NC NC	N/A

Previous item	2019 item	D/A/ R/NC+	Rationale
4. Who taught you most of what you know about American Indian or Alaska Native arts and crafts?  ① No one has taught me about American Indian or Alaska Native arts and crafts.  ① Family members  ② Friends  ① Tribal representatives or elders  ① Some else (please specify):	4. Who taught you most of what you know about American Indian or Alaska Native arts and crafts?  No one has taught me about American Indian or Alaska Native arts and crafts.  Family members  Friends  Teachers  Tribal representatives or elders  Someone else (please specify):	NC NC	N/A
5. How often do you go to American Indian or Alaska Native ceremonies and gatherings?  Never  Every few years  At least once a year  Several times a year  (2015 Grade 4)	5. How often do you go to American Indian or Alaska Native ceremonies and gatherings?  O Never  Every few years  At least once a year  Several times a year	NC NC	N/A
6. How often do members of your family talk to each other in your American Indian or Alaska Native language?  ① Never or hardly ever ② Once or twice a month ② Once or twice a week ① Every day or almost every day  (2015 Grade 4)	6. How often do members of your family talk to each other in your American Indian or Alaska Native language?  © Never or hardly ever  © Once or twice a month  © Once or twice a week  © Every day or almost every day	NC NC	N/A

Previous item 2019 item		D/A/ R/NC+	Rationale
7. How often do people in your school talk to each other in your American Indian or Alaska Native language?  Never or hardly ever  Once or twice a month  Once or twice a week  Every day or almost every day  (2015 Grade 4)	7. How often do people in your school talk to each other in your American Indian or Alaska Native language?  © Never or hardly ever  © Once or twice a month  © Once or twice a week  © Every day or almost every day	NC	N/A
8. How often do you attend classes in school that are taught in an American Indian or Alaska Native language?  ① My school does not offer classes that are taught in an American Indian or Alaska Native language.  ③ Never or hardly ever  ② Once or twice a month  ① Once or twice a week  ⑤ Every day or almost every day	8. How often do you attend classes in school that are taught in an American Indian or Alaska Native language?  My school does not offer classes that are taught in an American Indian or Alaska Native language.  Never or hardly ever  Once or twice a month Once or twice a week Every day or almost every day	NC	N/A
9. How do you rate yourself in speaking an American Indian or Alaska Native language?  © I cannot speak an American Indian or Alaska Native language.  © I can speak a few words or phrases.  © I can speak well.	9. How do you rate yourself in speaking an American Indian or Alaska Native language?  © 1 cannot speak an American Indian or Alaska Native language.  © 1 can speak a few words or phrases.  © 1 can speak well.	NC	N/A
(2015 Grade 4)  10. How do you rate yourself in reading an American Indian or Alaska Native language?  Discannot read in an American Indian or Alaska Native language.  Discan read a few words or phrases.  Circumstance I can read well.	10. How do you rate yourself in reading an American Indian or Alaska Native language?   © I cannot read in an American Indian or Alaska Native language.  © I can read a few words or phrases.  © I can read well.	NC	N/A

Previous item	2019 item	D/A/ R/NC+	Rationale
(2015 Grade 4)			
11. Who taught you <b>most</b> of what you know about an American Indian or Alaska Native language?	11. Who taught you <b>most</b> of what you know about an American Indian or Alaska Native language?	NC	N/A
No one has taught me about an American Indian or Alaska Native language.	No one has taught me about an American Indian or Alaska Native language.		
Family members	Family members		
© Friends	© Friends		
	Teachers		
© Teachers	© Tribal representatives or elders		
Tribal representatives or elders	Someone else (please specify):		
Some else (please specify):			
(2015 Grade 4)			
NHISSASS  12. During 4th grade, have you attended school field trips to museums, traditional villages, or other places to learn about American Indian or Alaska Native people?   Yes  No	12. During 4th grade, have you attended school field trips to museums, traditional villages, or other places to learn about American Indian or Alaska Native people?  ◆ Yes  No	NC	N/A
(2015 Grade 4)			
13. During 4th grade, have you used books, videos, or other materials (including Internet resources) about American Indian or Alaska Native people in school?  The Yes, once or twice  Yes, three or more times	13. During 4th grade, have you used books, videos, or other materials (including Internet resources) about American Indian or Alaska Native people in school?  ◆ Yes, once or twice  ◆ Yes, three or more times  ◆ No	NC	N/A

2019 Operational Grade 4 National Indian Education Study (NIES) Student					
Previous item	2019 item	D/A/ R/NC+	Rationale		
VHI53940  14. During 4th grade, have you used books, videos, or other materials (including Internet resources) about American Indian or Alaska Native people outside of school?  Solvent Yes, once or twice  Yes, three or more times  No	14. During 4th grade, have you used books, videos, or other materials (including Internet resources) about American Indian or Alaska Native people outside of school?  Solves, once or twice Yes, three or more times No	NC	N/A		
(2015 Grade 4)		80142			
15. In school, do you have access to a library, media center, or resource center with books, videos, or other materials (including Internet resources) about American Indian or Alaska Native people?  ① Yes  ① No	<ul> <li>15. In school, do you have access to a library, media center, or resource center with books, videos, or other materials (including Internet resources) about American Indian or Alaska Native people?</li> <li>Yes</li> <li>No</li> </ul>	NC NC	N/A		
(2015 Grade 4)					
16. When my teacher talks about American Indian or Alaska Native history or culture, I try to read more about it.  This is not like me.  This is a little like me.	16. When my teacher talks about American Indian or Alaska Native history or culture, I try to read more about it.  ② This is not like me.  ③ This is a little like me.  ③ This is a lot like me.	NC	N/A		
(2015 Grade 4)					
17. I enjoy reading about American Indian or Alaska Native people.  This is not like me.	<ul><li>17. I enjoy reading about American Indian or Alaska Native people.</li><li>  This is not like me.</li></ul>	NC	N/A		
This is a little like me.	<ul><li>This is a little like me.</li><li>This is a lot like me.</li></ul>				
© This is a lot like me.	The state of the s				
The least the life.					
(2015 Grade 4)					

Previous item	2019 item		D/A/ R/NC+	Rationale
18. I enjoy reading about people who have different traditions and cultures (ways of life, customs) than I have.  This is not like me.  This is a little like me.  This is a lot like me.	<ul> <li>18. I enjoy reading about people who have different traditions and cultures (ways of life, customs) than I have.</li> <li>This is not like me.</li> <li>This is a little like me.</li> <li>This is a lot like me.</li> </ul>	VHZ4014S	NC	N/A
(2015 Grade 4)		VH240146	NC	N/A
19. I put a lot of effort into my schoolwork.	19. I put a lot of effort into my schoolwork.			
This is not like me.	<ul> <li>This is not like me.</li> <li>This is a little like me.</li> </ul>			
This is a little like me.	This is a lot like me,			
© This is a lot like me.				
(2015 Grade 4)				
20. I want to be one of the best students in	20. I want to be one of the best students in my class.	VH2#U#7	NC	N/A
my class.	This is not like me.			
This is not like me.	This is a little like me.			
This is a little like me.	© This is a lot like me.			
This is a lot like me.				
(2015 Grade 4)				
21. I enjoy being challenged in my classes.	21. I enjoy being challenged in my classes.	VIQUUIAN	NC	N/A
This is not like me.	This is not like me.			
This is a little like me.	This is a little like me.			
© This is a lot like me.	© This is a lot like me.			
(2015 Grade 4)				
22. I feel that I belong at school.	22. I feel that I belong at school.	VH240149	NC	N/A
This is not like me.	This is not like me.			
This is a little like me.	This is a little like me.			
© This is a lot like me.	This is a lot like me.			

(2015 Grade 4)  23. If I put in enough effort, I will succeed in school.  © Strongly disagree  © Disagree  © Agree  © Strongly agree  (2015 Grade 8)  24. Trying hard in school will help me live a good life when I grow up.  © Strongly disagree  © Disagree  © Strongly agree  24. Trying hard in school will help me live a good life when I grow up.  © Strongly disagree  © Disagree  © Strongly agree  25. Trying hard in school will help me live a good life when I grow up.  © Strongly disagree  © Disagree  © Disagree  © Agree  © Strongly agree  (2015 Grade 4)	VII240151#	NC	N/A
23. If I put in enough effort, I will succeed in school.  © Strongly disagree  © Disagree  © Agree  © Strongly agree  (2015 Grade 8)  24. Trying hard in school will help me live a good life when I grow up.  © Strongly disagree  © Disagree  © Strongly agree  24. Trying hard in school will help me live a good life when I grow up.  © Strongly disagree  © Disagree  © Disagree  © Disagree  © Strongly disagree  © Strongly disagree  © Strongly disagree  © Disagree  © Disagree  © Strongly agree		NC	N/A
24. Trying hard in school will help me live a good life when I grow up.  © Strongly disagree  © Disagree  © Agree  © Strongly agree  Strongly agree  © Strongly agree	YHD40151		
24. Trying hard in school will help me live a good life when I grow up.  ② Strongly disagree  ③ Disagree  ③ Agree  ③ Strongly agree  ② Strongly agree	YH240151	- 1	
		NC	N/A
25. How often does a parent or someone else from your family help you with your schoolwork? For example, they might help you to study for a test, help you with a school project, or go over your homework with you.  ② Never or hardly ever  ③ Once or twice a month  ③ Once or twice a week  ⑤ Every day or almost every day	viidalitz	NC	N/A

Previous item	2019 item	D/A/ R/NC+	Rationale
26. How often does a teacher or another adult from your school help you with your schoolwork? For example, they might help you to study for a test, help you with a school project, or go over your homework with you.  ① Never or hardly ever ① Once or twice a month ② Once or twice a week ① Every day or almost every day	26. How often does a teacher or another adult from your school help you with your schoolwork? For example, they might help you to study for a test, help you with a school project, or go over your homework with you.  © Never or hardly ever  © Once or twice a month  © Once or twice a week  © Every day or almost every day	NC	N/A
27. How often does another student from your school help you with your schoolwork? For example, they might help you to study for a test, help you with a school project, or go over your homework with you.  Never or hardly ever  Once or twice a month Conce or twice a week  Every day or almost every day	27. How often does another student from your school help you with your schoolwork? For example, they might help you to study for a test, help you with a school project, or go over your homework with you.  © Never or hardly ever  © Once or twice a month © Once or twice a week © Every day or almost every day	NC	N/A
(2015 Grade 4)  28. How often do you help other students from your school with their schoolwork? For example, you might help other students to study for a test, help them with a school project, or go over their homework with them.  © Never or hardly ever  © Once or twice a month  © Once or twice a week  © Every day or almost every day  (2015 Grade 4)	28. How often do you help other students from your school with their schoolwork?  For example, you might help other students to study for a test, help them with a school project, or go over their homework with them.  Never or hardly ever  Once or twice a month  Once or twice a week  Every day or almost every day	NC	N/A

2019 Operational Grade 4	l National Indian Education Study (NIES) Stude	ent		
Previous item	2019 item		D/A/ R/NC+	Rationale
29. How much do you like school?  Not at all  A little  Somewhat  Very much	29. How much do you like school?  Not at all A little Somewhat Very much	VIQANIS	NC	N/A
(2015 Grade 4)  NOTE: 10 Yes    30. Do you know the name of the   American Indian tribe or Alaska Native   group you belong to or are enrolled in?  Yes    No    The not sure.	30. Do you know the name of the American Indian tribe or Alaska Native group you belong to or are enrolled in?  So Yes No Do I'm not sure.	V8240157	NC	N/A
31. If you know the name of the American Indian tribe or Alaska Native group that you belong to or are enrolled in, or if you think you know it, please print it on the line below. Do not worry about spelling. If you belong to more than one American Indian tribe or Alaska Native group, write the names of as many as you know.	31. If you know the name of the American Indian tribe or Alaska Native group that you belong to or are enrolled in, or if you think you know it, please print it on the line below. Do not worry about spelling. If you belong to more than one American Indian tribe or Alaska Native group, write the names of as many as you know.	VII3-2881	NC	N/A
(2015 Grade 4)  32. What else would you like to say about yourself, your school, or about American Indian or Alaska Native people? Use these lines to write your ideas.  (2015 Grade 4)	32. What else would you like to say about yourself, your school, or about American Indian or Alaska Native people? Use these lines to write your ideas.	VID42832	NC	N/A

## **Appendix K-1at: Operational Grade 4 NIES**

1.	gro	w much do you know about your American Indian tribe or Alaska Native oup? For example, you may know about the history, traditions, or arts and crafts your tribe or group.	
	<b>(A)</b>	Nothing	
	®	A little	
	0	Some	
	0	A lot	
			VH240129
2.		no taught you <b>most</b> of what you know about American Indian or Alaska Native tory?	
	$\bigcirc$	No one has taught me about American Indian or Alaska Native history.	
	®	Family members	
	0	Friends	
	0	Teachers	
	Œ	Tribal representatives or elders	
	(Ē)	Someone else (please specify):	
2	<b>3 X 7</b> 1.	and the second of the second o	VH240130
3.		no taught you <b>most</b> of what you know about American Indian or Alaska Native ditions (ways of life, customs)?	
	lack	No one has taught me about American Indian or Alaska Native traditions.	
	®	Family members	
	0	Friends	
	0	Teachers	
	Œ	Tribal representatives or elders	
	Ð	Someone else (please specify):	

			VH240131
4.		no taught you <b>most</b> of what you know about American Indian or Alaska Native s and crafts?	
	<b>(A)</b>	No one has taught me about American Indian or Alaska Native arts and crafts.	
	$^{ ext{                                  $	Family members	
	0	Friends	
	0	Teachers	
	Œ	Tribal representatives or elders	
	(F)	Someone else (please specify):	
			VH240132
5.		w often do you go to American Indian or Alaska Native ceremonies and herings?	
	<b>(A)</b>	Never	
	®	Every few years	
	0	At least once a year	
	0	Several times a year	
			VH240133
6.		w often do members of your family talk to each other in your American Indian Alaska Native language?	
	<b>(A)</b>	Never or hardly ever	
	®	Once or twice a month	
	0	Once or twice a week	
	0	Every day or almost every day	

		VH240134
7.	How often do people in your school talk to each other in your American Indian or Alaska Native language?	
	Never or hardly ever	
	® Once or twice a month	
	© Once or twice a week	
	© Every day or almost every day	
		VH240135
8.	How often do you attend classes <b>in school</b> that are taught in an American Indian or Alaska Native language?	
	My school does not offer classes that are taught in an American Indian or Alaska Nat language.	rive
	Never or hardly ever	
	© Once or twice a month	
	Once or twice a week	
	© Every day or almost every day	
9	How do you rate yourself in speaking an American Indian or Alaska Native	VH240136
•	language?	
	I cannot speak an American Indian or Alaska Native language.	
	® I can speak a few words or phrases.	
	© I can speak well.	
4.0		VH240137
1 (1)	How do you rate yourself in reading an American Indian or Alaska Native	

- **10.** How do you rate yourself in reading an American Indian or Alaska Native language?
  - I cannot read in an American Indian or Alaska Native language.
  - ® I can read a few words or phrases.
  - © I can read well.

		VH240138
11.	. Who taught you <b>most</b> of what you know about an American Indian or Alaska Native language?	
	Family members	
	© Friends	
	© Teachers	
	© Tribal representatives or elders	
	© Someone else (please specify):	
12.	During 4th grade, have you attended school field trips to museums, traditional villages, or other places to learn about American Indian or Alaska Native people?	VH240139
	Yes	
	® No	
		VH240140
13.	During 4th grade, have you used books, videos, or other materials (including Internet resources) about American Indian or Alaska Native people <b>in school</b> ?	
	Yes, once or twice	
	Yes, three or more times	
	© No	
		VH24014
14.	During 4th grade, have you used books, videos, or other materials (including Internet resources) about American Indian or Alaska Native people outside of school?	
	Yes, once or twice	
	Yes, three or more times	
	© No	

15.	boo	school, do you have access to a library, media center, or resource center with oks, videos, or other materials (including Internet resources) about American lian or Alaska Native people?	VH240142
	lack	Yes	
	B	No	VH240143
16.		nen my teacher talks about American Indian or Alaska Native history or culture, ry to read more about it.	VH240143
	<b>(A)</b>	This is not like me.	
	®	This is a little like me.	
	0	This is a lot like me.	
17.	I eı	njoy reading about American Indian or Alaska Native people. This is not like me. This is a little like me.	VH240144
	0	This is a lot like me.	VH240145
18.		njoy reading about people who have different traditions and cultures (ways of e, customs) than I have.	
	lack	This is not like me.	
	®	This is a little like me.	
	0	This is a lot like me.	

		VH240146
19.	I put a lot of effort into my schoolwork.	
	① This is not like me.	
	® This is a little like me.	
	© This is a lot like me.	
		VH240147
20.	I want to be one of the best students in my class.	
	① This is not like me.	
	® This is a little like me.	
	© This is a lot like me.	
		VH240148
21.	I enjoy being challenged in my classes.	
	This is not like me.	
	This is a little like me.	
	© This is a lot like me.	
		VH240149
22.	I feel that I belong at school.	
	① This is not like me.	
	® This is a little like me.	
	© This is a lot like me.	

V	$H_2$	40	114	50

		VH240150
23.	If I put in enough effort, I will succeed in school.	
	Strongly disagree	
	® Disagree	
	© Agree	
	© Strongly agree	
		VH240151
24.	Trying hard in school will help me live a good life when I grow up.	
	Strongly disagree	
	® Disagree	
	© Agree	
	© Strongly agree	
		VH240152
25.	How often does a parent or someone else from your family help you with your schoolwork? For example, they might help you to study for a test, help you with a school project, or go over your homework with you.	
	Never or hardly ever	
	® Once or twice a month	
	© Once or twice a week	
	© Every day or almost every day	

V	H2	40	114	53

- **26.** How often does a teacher or another adult from your school help you with your schoolwork? For example, they might help you to study for a test, help you with a school project, or go over your homework with you.
  - Never or hardly ever
  - ® Once or twice a month
  - Once or twice a week
  - Every day or almost every day

- **27.** How often does **another student from your school** help you with your schoolwork? For example, they might help you to study for a test, help you with a school project, or go over your homework with you.
  - Never or hardly ever
  - ® Once or twice a month
  - Once or twice a week
  - Every day or almost every day

- **28.** How often do **you** help other students from your school with their schoolwork? For example, you might help other students to study for a test, help them with a school project, or go over their homework with them.
  - Never or hardly ever
  - ® Once or twice a month
  - Once or twice a week
  - Every day or almost every day

VIIIO	40	154

		V11240130
29.	How much do you like school?	
	Not at all	
	A little	
	© Somewhat	
	© Very much	
		VH240157
30.	Do you know the name of the American Indian tribe or Alaska Native group you belong to or are enrolled in?	
	Yes	
	® No	
	© I'm not sure.	
		VH242881
31.	If you know the name of the American Indian tribe or Alaska Native group that you belong to or are enrolled in, or if you think you know it, please print it on the line below. Do not worry about spelling. If you belong to more than one American Indian tribe or Alaska Native group, write the names of as many as you know.	

32.	What else would you like to say about yourself, your school, or about American Indian or Alaska Native people? Use these lines to write your ideas.

### **Appendix K-1au: Summary of Changes Operational Grade 8 NIES**

Previous item						2019 item						D/A/ R/NC+	Rationale
1. How much do you know about each of the	e followi	ng? Fill in	one oval or	n each line	VC996578	How much do you know al each row.	out each of the	e following? Sele	ect one answer	choice on	VIDA(514	NC	The in-line
	Nothing	A little	Some	A lot			Nothing	A little	Some	A lot			adapted fron
a. Your American Indian or Alaska Native history	0	•	0	0	VC996581	Your American Indian or     Alaska Native history     b. Your American Indian or	•	Φ.	0	0	VH2+1515		PBA to DBA:
b. Your American Indian or Alaska Native traditions and culture (way of life, customs)	0	•	0	0	VC996582	Alaska Native traditions and culture (way of life, customs)	•	Φ	0	0	VIDITS17		"Fill in one oval on each
c. Issues today that are important to American Indian or Alaska Native people	<b>(3)</b>	•	0	•	VQ996583	c. Issues today that are important to American Indian or Alaska Native people	0	0	0	0	VICATSUS		line." was adapted to
(2015 Grade 8)													"Select one answer choice on each row."
2. Who taught you most of what you know history?  Do No one has taught me about America Family members Friends Teachers Tribal representatives or elders Someone else (please specify):						2. Who taught you most of wha history?  No one has taught me about Family members  Friends Teachers Tribal representatives or of Someone else (please specifications)	ut American II			Native		NC	N/A
3. Who taught you most of what you know traditions (ways of life, customs)?  One has taught me about America Family members  Friends  Teachers  Tribal representatives or elders  Someone else (please specify):					VH039760	3. Who taught you most of wha traditions (ways of life, custor  ⚠ No one has taught me abo  ♠ Family members  ♠ Friends  ♠ Teachers  ♠ Tribal representatives or o  ♠ Someone else (please spec	ns)? ut American li lders	ndian or Alaska			VHSunso	NC	N/A

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item						2019 item						D/A/ R/NC+	Rationale
Who taught you <b>most</b> of what you kno American Indian or Alaska Native peop	w about iss ple?	sues today	that are im	portant to	VH039931	4. Who taught you <b>most</b> of what American Indian or Alaska N			that are import	ant to	VIC40158	NC	N/A
No one has taught me about issues Alaska Native people.	today that	are impor	tant to Am	erican Ind	lian or	No one has taught me abo Native people.	ut issues tod	ay that are impo	rtant to America	n Indian or Ala	ska		
Tamily members						Family members							
© Friends						© Friends							
						Teachers							
Tribal representatives or elders						Tribal representatives or e	lders						
© Someone else (please specify):						Someone else (please spec	ify):	-					
Someone cise (please specify).													
(2015 Grade 8)													
5. How often have you participated in eac	h of the fol	lowing? Fi	ll in one ov	al on each	VC996584 n line.	<ol><li>How often have you participe each row.</li></ol>	ated in each o	the following? S	elect one answer	choice on	VR20518	NC	The in-line direction wa
	Never	Every few years	At least once a year	Several times a year			Never	Every few years	At least once a year	Several times a year			adapted from
a. Ceremonies and gatherings for people from your American Indian tribe or Alaska Native group	0	0	0	0	VC996586	Ceremonies and gatherings for people from your American Indian tribe or Alaska Native group	Φ	•	0	Ф	VH2(1519		PBA to DBA: "Fill in one
b. Ceremonies and gatherings that bring people together from many different American Indian tribes or Alaska Native groups	•	•	0	0	VC996587	b. Ceremonies and gatherings that bring people together from many different American Indian tribes or Alaska Native groups	0	0	0	Ф	VH241521		oval on each line." was adapted to
c. Other American Indian or Alaska	(8)	Œ	0		VC996589	c. Other American Indian or Alaska Native activities	0	0	0	0	V14241520		"Select one
Native activities	•	•		9		Allocal value activities							answer choice on
(2015 Grade 8)													each row."
6. How often do members of your family Alaska Native language?	talk to each	h other in	your Ameri	can Indian	VC750193 1 OF	6. How often do members of you or Alaska Native language?	ır family talk	to each other in	your American	Indian	VH240133	NC	N/A
Never or hardly ever						Never or hardly ever							
Once or twice a month						Once or twice a month							
Once or twice a week						Once or twice a week							
Every day or almost every day						<ul> <li>Every day or almost every</li> </ul>	day						

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item	2019 item	D/A/ R/NC+	Rationale
7. How often do people in your school talk to each other in your American Indian or Alaska Native language?  © Never or hardly ever  © Once or twice a month  © Once or twice a week  © Every day or almost every day	7. How often do people in your school talk to each other in your American Indian or Alaska Native language?  © Never or hardly ever  © Once or twice a month  © Once or twice a week  © Every day or almost every day	NC	N/A
(2015 Grade 8)  8. How often do you attend classes in school that are taught in an American Indian or Alaska Native language?	8. How often do you attend classes in school that are taught in an American Indian or Alaska Native language?	NC	N/A
<ul> <li>My school does not offer classes that are taught in an American Indian or Alaska Native language.</li> <li>Never or hardly ever</li> <li>Once or twice a month</li> <li>Once or twice a week</li> <li>Every day or almost every day</li> </ul>	<ul> <li>My school does not offer classes that are taught in an American Indian or Alaska Native language.</li> <li>Never or hardly ever</li> <li>Once or twice a month</li> <li>Once or twice a week</li> <li>Every day or almost every day</li> </ul>		
9. How do you rate yourself in speaking an American Indian or Alaska Native language?  I cannot speak an American Indian or Alaska Native language.  I can speak a few words or phrases.	9. How do you rate yourself in speaking an American Indian or Alaska Native language?  © I cannot speak an American Indian or Alaska Native language.  © I can speak a few words or phrases.  © 1 can speak well.	NC	N/A
(2015 Grade 8)  10. How do you rate yourself in reading an American Indian or Alaska Native language?  10. I cannot read in an American Indian or Alaska Native language.  10. I can read a few words or phrases.  10. I can read well.	10. How do you rate yourself in reading an American Indian or Alaska Native language?  □ I cannot read in an American Indian or Alaska Native language. □ I can read a few words or phrases. □ I can read well.	NC	N/A

368

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item				2019 item				D/A/ R/NC+	Rationale
11. Who taught you most of what you know about an Amlanguage?  Do No one has taught me about an American Indian of Family members  Friends Teachers Tribal representatives or elders  Someone else (please specify):				11. Who taught you most of what you know about Native language?  No one has taught me about an American I Family members Friends Teachers Tribal representatives or elders  Someone else (please specify):	indian or Alaska Nat		VICAOI NE	NC	N/A
(2015 Grade 8)  12. During 8th grade, how often have any of your teacher history, traditions, and cultures (ways of life, customs Native people?  © Never or hardly ever  © Once or twice a month  © Once or twice a week  © Every day or almost every day	s talked to s) of Americ	your class al can Indian or	vcsssso- cout the : Alaska	12. During 8th grade, how often have any of your the history, traditions, and cultures (ways of lif Alaska Native people?  ② Never or hardly ever ③ Once or twice a month ③ Once or twice a week ⑤ Every day or almost every day			31(246)59	NC	N/A
(2015 Grade 8)  13. During 8th grade, have you attended any of the follow school? Fill in one oval on each line.	ing activiti	ies organized	by your	During 8th grade, have you attended any of the following activities organized by your school? Select one answer choice on each row.					The in-line
school: Fir in one ovar on each line.	Yes	No			Yes	No			direction was adapted from
a. Presentations by American Indian or Alaska Native people about their traditions and cultures (ways of life, customs)	<b>®</b>	<b>®</b>	VHI58491	Presentations by American Indian or Alaska Native people about their traditions and cultures (ways of life, customs)	0	0	VH241523		PBA to DBA:
b. American Indian or Alaska Native art and craft	<b>(A)</b>	(1)	VH158492	b. American Indian or Alaska Native art and craft demonstrations	0	0	VH241526		"Fill in one
b. American Indian or Alaska Native art and craft demonstrations	9	9		c. Traditional American Indian or Alaska Native music and/or dance performances	Φ	0	VH241525		oval on each line." was
c. Traditional American Indian or Alaska Native music and/or dance performances	(4)	®	VH158493	d. Field trips to museums, traditional villages, or other places to learn about American Indian or Alaska Native people	0	Œ	VHQ41524		adapted to
d. Field trips to museums, traditional villages, or other places to learn about American Indian or Alaska Native people  (2015 Grade 8)	Φ	(3)	VH158494						"Select one answer choice on each row."

369

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item				2019 item				D/A/ R/NC+	Rationale
14. During 8th grade, have you participated in any of t your school? Fill in one oval on each line.	he following	ctivities orga	nnized by	14. During 8th grade, have you participated in any of the following activities organized by your school? Select one answer choice on each row.					The in-line direction was
	Yes	No			Yes	No			adapted from
a. Sports team	<b>®</b>	(3)	VH040143	a. Sports team	Φ	0	VH241528		PBA to DBA:
b. Music club, orchestra, or band	0	<b>®</b>	VH040347	b. Music club, orchestra, or band c. Cultural dances or other American Indian	<b>®</b>	Ф	VH241592		"Fill in one
c. Cultural dances or other American Indian or	(A)	0	VH040150	or Alaska Native activities (for example, drum groups)	•	Φ	Vitakisəl		
Alaska Native activities (for example, drum groups)	@		1104/150	d. Academic club (for example, math club)	<b>©</b>	•	VH241530		oval on each line." was
d. Academic club (for example, math club)	@	•	VH040152						adapted to "Select one answer choice on
(2015 Grade 8)									each row."
<ul> <li>15. During 8th grade, have you used books, videos, or resources) about American Indian or Alaska Native</li> <li>Yes, once or twice</li> <li>Yes, three or more times</li> <li>No</li> </ul>			Internet	<ul> <li>15. During 8th grade, have you used books, videor Internet resources) about American Indian or</li> <li>◆ Yes, once or twice</li> <li>◆ Yes, three or more times</li> <li>♦ No</li> </ul>				NC	N/A
(2015 Grade 8)			_				_		
<ul> <li>16. During 8th grade, have you used books, videos, or or resources) about American Indian or Alaska Nativo</li> <li>Yes, once or twice</li> <li>Yes, three or more times</li> <li>No</li> </ul>			vinis9110 Internet	16. During 8th grade, have you used books, video Internet resources) about American Indian or outside of school?  ② Yes, once or twice ③ Yes, three or more times ③ No		neluding	V1(24016)	NC	N/A
				5 100					
(2015 Grade 8)			VH153945				VH2401425		
17. In school, do you have access to a library, media ce videos, or other materials (including Internet resou Native people?			th books,	17. In school, do you have access to a library, mee books, videos, or other materials (including In Indian or Alaska Native people?			VII2401425	NC	N/A
				Yes					
				© No					

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item					2019 item					D/A/ R/NC+	Rationale
18. Here are some sentences about reading, Fill in one sentence describes a person like you.	oval on ea	ch line to s	how whet	vc996624 her the	18. Here are some sentences about re sentence describes a person like		val on each line to	show whether the	VHZMISTS	NC	The in-line direction was
	This is not like	This is a little like	This is a lot like			This is not like me.	This is a little like me.	This is a lot like me.			adapted from
a. When my teacher talks about American Indian or Alaska Native history or culture, I try to read more about it.	me.	me.	me.	YH043704	When my teacher talks about American Indian or Alaska Native history or culture, I try to read more about it.	Φ	<b>®</b>	0	VH241536		PBA to DBA: "Fill in one
b. I enjoy reading about American Indian or Alaska	a 👁	(10)	0	VC996627	<ul> <li>I enjoy reading about American Indian or Alaska Native people.</li> </ul>	Ø	(0)	©	VH241538		oval on each
Native people.  c. I enjoy reading about people who have different traditions and cultures (ways of life, customs) than I have.	(3)	ⅎ	0	VC996628	c. I enjoy reading about people who have different traditions and cultures (ways of life, customs) than I have.	Ø	Φ	0	VPDATEUT		line to show whether the sentence
											answer
<ol> <li>Here are some sentences about your school. Fill in the sentence describes a person like you.</li> </ol>	one oval o	n each line	to show t	vH540130 whether	19. Here are some sentences about yes sentence describes a person like	our school. Fill in <b>o</b> you.	ne oval on each lin	e to show whether t	VR241539	NC	answer choice on each row." The in-line direction was
	This is	This is a	This is a		19. Here are some sentences about yes sentence describes a person like y	our school. Fill in o you. This is not like me.	ne oval on each lin This is a little like me.	e to show whether this is a lot like me.	VR241539	NC	choice on each row." The in-line direction was adapted from
the sentence describes a person like you.	This is not like me.	This is a little like me.	This is a lot like me.	whether	19. Here are some sentences about y sentence describes a person like y  a. I put a lot of effort into my schoolwork.	This is not like	This is a little	This is a lot like	VR241539 he	NC	choice on each row."  The in-line direction was adapted from PBA to DBA:
the sentence describes a person like you.  a. I put a lot of effort into my schoolwork.	This is not like	This is a little like	This is a lot like		a. I put a lot of effort into my schoolwork. b. I want to be one of the best students in my class.	This is not like me.	This is a little like me.	This is a lot like me.		NC	choice on each row."  The in-line direction was adapted from PBA to DBA: "Fill in one
the sentence describes a person like you.	This is not like me.	This is a little like me.	This is a lot like me.	vH040131	a. 1 put a lot of effort into my schoolwork. b. I want to be one of the best students in my class. c. I enjoy being challenged in my classes.	This is not like me.	This is a little like me.	This is a lot like me.	VH241540 VH241543 VH241542	NC	choice on each row."  The in-line direction was adapted from PBA to DBA: "Fill in one oval on each
a. I put a lot of effort into my schoolwork. b. I want to be one of the best students in my class. c. I enjoy being challenged in my classes.	This is not like me.	This is a little like me.	This is a lot like me.	vH040131 vH040134 vH040137	a. 1 put a lot of effort into my schoolwork. b. I want to be one of the best students in my class. c. I enjoy being challenged in my	This is not like me.	This is a little like me.	This is a lot like me.	V81241540 V81241543	NC	choice on each row."  The in-line direction was adapted from PBA to DBA: "Fill in one
a. I put a lot of effort into my schoolwork.  b. I want to be one of the best students in my class.	This is not like me.	This is a little like me.	This is a lot like me.	vH040131	a. 1 put a lot of effort into my schoolwork. b. I want to be one of the best students in my class. c. I enjoy being challenged in my classes.	This is not like me.	This is a little like me.	This is a lot like me.	VH241540 VH241543 VH241542	NC	choice on each row."  The in-line direction was adapted from PBA to DBA: "Fill in one oval on each line to show
a. I put a lot of effort into my schoolwork. b. I want to be one of the best students in my class. c. I enjoy being challenged in my classes. d. I feel that I belong at school.	This is not like me.	This is a little like me.	This is a lot like me.	vH040131 vH040134 vH040137	a. 1 put a lot of effort into my schoolwork. b. I want to be one of the best students in my class. c. I enjoy being challenged in my classes.	This is not like me.	This is a little like me.	This is a lot like me.	VH241540 VH241543 VH241542	NC	choice on each row."  The in-line direction was adapted from PBA to DBA:  "Fill in one oval on each line to show whether the sentence describes a person like
a. I put a lot of effort into my schoolwork. b. I want to be one of the best students in my class. c. I enjoy being challenged in my classes. d. I feel that I belong at school.	This is not like me.	This is a little like me.	This is a lot like me.	vH040131 vH040134 vH040137	a. 1 put a lot of effort into my schoolwork. b. I want to be one of the best students in my class. c. I enjoy being challenged in my classes.	This is not like me.	This is a little like me.	This is a lot like me.	VH241540 VH241543 VH241542	NC	choice on each row."  The in-line direction was adapted from PBA to DBA: "Fill in one oval on each line to show whether the sentence describes a person like you." was
a. I put a lot of effort into my schoolwork. b. I want to be one of the best students in my class. c. I enjoy being challenged in my classes, d. I feel that I belong at school.	This is not like me.	This is a little like me.	This is a lot like me.	vH040131 vH040134 vH040137	a. 1 put a lot of effort into my schoolwork. b. I want to be one of the best students in my class. c. I enjoy being challenged in my classes.	This is not like me.	This is a little like me.	This is a lot like me.	VH241540 VH241543 VH241542	NC	choice on each row."  The in-line direction was adapted from PBA to DBA: "Fill in one oval on each line to show whether the sentence describes a person like
a. I put a lot of effort into my schoolwork. b. I want to be one of the best students in my class. c. I enjoy being challenged in my classes.	This is not like me.	This is a little like me.	This is a lot like me.	vH040131 vH040134 vH040137	a. 1 put a lot of effort into my schoolwork. b. I want to be one of the best students in my class. c. I enjoy being challenged in my classes.	This is not like me.	This is a little like me.	This is a lot like me.	VH241540 VH241543 VH241542	NC	choice on each row."  The in-line direction was adapted from PBA to DBA: "Fill in one oval on each line to show whether the sentence describes a person like you." was adapted to
a. I put a lot of effort into my schoolwork. b. I want to be one of the best students in my class. c. I enjoy being challenged in my classes, d. I feel that I belong at school.	This is not like me.	This is a little like me.	This is a lot like me.	vH040131 vH040134 vH040137	a. 1 put a lot of effort into my schoolwork. b. I want to be one of the best students in my class. c. I enjoy being challenged in my classes.	This is not like me.	This is a little like me.	This is a lot like me.	VH241540 VH241543 VH241542	NC	choice on each row."  The in-line direction was adapted from PBA to DBA: "Fill in one oval on each line to show whether the sentence describes a person like you." was adapted to "Select one

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

371

Previous item						2019 item						D/A/ R/NC+	Rationale
20. How much do you agree with each of t line.	the followin	ng statemen	ts? Fill in	one oval or	viioiois7 each	20. How much do you agree w choice on each row.	ith each of the	following states	ments? Select	one answer	VIE41544	NC	The in-line direction was
	Strongly disagree	Disagree	Agree	Strongly agree			Strongly disagree	Disagree	Agree	Strongly agree			adapted from
<ul> <li>a. If I put in enough effort, I will succeed in school,</li> </ul>	8	<b>®</b>	0	0	VH040158	If I put in enough effort, I will succeed in school.	0	0	O	0	VH241545		PBA to DBA:
b. If I put in enough effort in school, I will get into college.	(3)	(8)	0	0	VH040160	<ul> <li>b. If I put in enough effort in school, I will get into college.</li> </ul>	•	0	0		VH241547		"Fill in one oval on each
c. If I put in enough effort in school, I will get a good job.	<b>(A)</b>	•	0	0	VH040161	<ul> <li>If I put in enough effort in school, I will get a good job.</li> </ul>	<b>©</b>	(8)	0	9	VH241546		line." was adapted to
(2015 Grade 8)													"Select one answer choice on each row."
21. How much do you like school?	VC759293					21. How much do you like scho	ol?				VH240156	NC	N/A
Not at all						Not at all							
® A little						A little							
© Somewhat						© Somewhat  ® Very much							
Very much						Very moen							
Very much													
(2015 Grade 8)													
22. How much are the things you are learn to lead?	ning in scho	ool preparing	g you for t	he life you	want	22. How much are the things you are learning in school preparing you for the life you want to lead?					NC	N/A	
Not at all						② Not at all							
A little						A little							
A fair amount						A fair amount							
Very much						Very much							
(2015 Grade 8)													
23. During 8th grade, how often have you class periods? For example, to get extra that matter to you, or just to visit.						23. During 8th grade, how often regular class periods? For ex- about issues that matter to y	imple, to get e	xtra help with yo			VH240163	NC	N/A
Never or hardly ever						Never or hardly ever							
Once or twice a month						Once or twice a month							
Once or twice a week						© Once or twice a week	a des						
Every day or almost every day						Every day or almost ever	y day						
(2015 Grade 8)												1	

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item						2019 item						D/A/ R/NC+	Rationale
24. How often do you help other students example, you might help other student project, or go over their homework wit	s to study					24. How often do you help other students from your school with their schoolwork?  For example, you might help other students to study for a test, help them with a school project, or go over their homework with them.						NC	N/A
Never or hardly ever						Never or hardly ever							
Once or twice a month						Once or twice a month							
Once or twice a week						Once of twice a week							
© Every day or almost every day				Every day or almost e	ry day								
(2015 Grade 8)													
25. How often do any of the following people help you with your schoolwork? For example, they might help you to study for a test, help you with a school project, or go over your homework with you. Fill in one oval on each line.				mple,	25. How often do any of the fo example, they might help y go over your homework wi	llowing people you to study for ith you, Select o	help you with yo a test, help you one answer choice	our schoolwork? with a school pro e on each row.	For oject, or	VH241548	NC	The in-line direction was	
	Never or hardly ever	Once or twice a month	Once or twice a week	Every day or almost every day			Never or hardly ever	Once or twice a month	Once or twice a week	Every day or almost every day			adapted from PBA to DBA:
A parent or someone else from my family	(3)	(1)	0	0	VC996636	A parent or someone else from my family	Ø	Œ	0	Ф	VHZ41549		"Fill in one
b. A teacher or another adult from my school	0	(1)	0	0	VCW6637	b. A teacher or another adult from my school c. Another student	9	<b>®</b>	0	0	VH241550 VH241553		oval on each line." was
c. Another student	<b>(A)</b>	(1)	0	0	VC996639	d. A tribal representative or elder	0	•	0	0	VH241551		adapted to
d. A tribal representative or elder	(3)	(1)	0	0	VH018268	enci							"Select one
													answer
													choice on
(2015 Grade 8)													each row."
			(1 (1)		VC996644	26. During 8th grade, how man	ny times have y	ou talked to each	of the followin	g people	VIDAISSA	NC	The in-line
26. During 8th grade, how many times hav about the classes you should take in hi school? Fill in one oval on each line.	gh school	or about wh	at you wai	nt to do afte	er high	about the classes you shou high school? Select <b>one</b> and			what you want t	o do after			direction was
		A COLUMN	Two or three	Four or			Never	One time	Two or three times	Four or more times			adapted from
	Never	One time	times	more times	VC996645	a. A family member	<b>®</b>	0	0	0	VH241556		PBA to DBA:
a. A family member	(4)	(B)	0	0		b. A teacher	0	0	0	0	VH241556		"Fill in one
b. A teacher	(4)	(1)	0	0	VC996646	c. A school counselor d. Another student	Ø	0	0	0	VH241557		oval on each
c. A school counselor	(4)	(1)	0	0	VC996547	e. A tribal representative or	•	•	0	0	VEI241560		line." was
d. Another student	(3)	1	0	0	VC996648	f. Someone else who lives in					- 1		adapted to
	(4)	(B)	0	0	VI0026209	my community or is a friend of my family	0	0	0	0	VHQ41558		"Select one
<ul> <li>e. A tribal representative or elder</li> </ul>												1	1

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

20	019 Ope	ration	al Grad	e 8 National India	an Educat	ion Stud	y (NIES	S) Stude	nt		
Previous item				2019 item						D/A/ R/NC+	Rationale
27. Which of the following would you plan to do in your first year after high school? Fi many ovals as apply.			school? Fill in	27. Ho you nian to do any		your first year afte	er high school?	Select one	VH211562	R	This item was revised in
a. Go to college full time		(3)	VC99	651		Yes		No	1 -		item type and
b. Go to college part time		0	VC99	a. Go to college full time b. Go to college part time		0		•	VH241563 VH241564		sentence
c. Go to another school (for example, career to trade/vocational) full time	raining, technic	al, ©	VC99		or example, career ade/vocational) full	0		0	VH241565		structure of
d. Go to another school (for example, career to trade/vocational) part time	raining, technic	al, ©	VC99		or example, career ade/vocational) par	t @		Φ	VH241566		this item based on the
e. Join the military		0	VC99			0		0	VH241572		structure for
f. Work full time		•	VC99	f. Work full time		0		<b>(D)</b>	VH241548		Core
g. Work part time		@	VC99	g. Work part time h. Travel		Ø Ø		0	VH241569 VH241570		household
		- 3	VC99	i. Care for family		0		0	N14241571		
h. Travel		0		j. I don't know.		(3)		•	VH241567		possession 
i. Care for family		Φ	VC99	9009							item.
											adapted from PBA to DBA: "Fill in as many ovals as apply." was adapted to "Select one answer choice on each row."
28. To what extent is each of the following a prolline.	blem in your sch		one oval on eac		of the following a	problem in your s	school? Select	one answer	VIESISTA	NC	The in-line direction was
No a		Moderate extent	Large extent		Not at all	Small extent	Moderate extent	Large extent	(7.1		adapted from
a. Student tardiness	0	0	① VIIO4	a. Student tardiness	•	<b>®</b>	©	0	VHQ41574		PBA to DBA:
b. Student health problems	D D	0	© VH04	b. Student health problems	s @	(3)	Ø	Φ	VH241575		"Fill in one
c. Student misbehavior in class	0 0	0	① VH04	c. Student misbehavior in class	•	•	0	Φ	V11241576		oval on each
				d. Physical conflicts amon students	g o	•	0	0	VI:1241580		
		0	•	e. Bullving	Φ	0	0	0	VIII241578		line." was
e. Bullying	<b>D</b>	0	•	f. Low student motivation	0	0	0	0	VH141570		adapted to
f. Low student motivation	0 0	0	© V1604	A) rayisad (D) ar thara							

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

2019 Operational Grade 8	8 National Indian Education Study (NIES) Stude	nt		
Previous item	2019 item		D/A/ R/NC+	Rationale
(2015 Grade 8)				"Select one answer choice on each row."
29. Do you know the name of the American Indian tribe or Alaska Native group you belong to or are enrolled in?  ② Yes  ③ No  ③ I'm not sure.	<ul> <li>29. Do you know the name of the American Indian tribe or Alaska Native group you belong to or are enrolled in?</li> <li>Φ Yes</li> <li>Φ No</li> <li>© Γm not sure.</li> </ul>	VH246157	NC	N/A
(2015 Grade 8)  30. If you know the name of the American Indian tribe or Alaska Native group that you belong to or are enrolled in, or if you think you know it, please print it on the line below. Do not worry about spelling. If you belong to more than one American Indian tribe or Alaska Native group, write the names of as many as you know.	30. If you know the name of the American Indian tribe or Alaska Native group that you belong to or are enrolled in, or if you think you know it, please print it on the line below. Do not worry about spelling. If you belong to more than one American Indian tribe or Alaska Native group, write the names of as many as you know.	yitizm	NC	N/A
(2015 Grade 8)	Y			
31. What else would you like to say about yourself, your school, or about American Indian or Alaska Native people? Use these lines to write your ideas.	31. What else would you like to say about yourself, your school, or about American Indian or Alaska Native people? Use these lines to write your ideas.	VID4280	NC	N/A
(2015 Grade 8)				

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

## **Appendix K-1av: Operational Grade 8 NIES**

**1.** How much do you know about each of the following? Select **one** answer choice on each row.

	Nothing	A little	Some	A lot	
a. Your American Indian or Alaska Native history	A	®	0	0	VH241515
b. Your American Indian or Alaska Native traditions and culture (way of life, customs)	<b>®</b>	<b>®</b>	0	0	VH241517
c. Issues today that are important to American Indian or Alaska Native people	<b>(</b>	<b>®</b>	0	0	VH241516

١	/H	124	10	1	2	

2.	Who taught you	most of wha	it you knov	v about Ar	nerican Ind	ian or Alasl	ka Native
	history?						

- No one has taught me about American Indian or Alaska Native history.
- ® Family members
- © Friends
- Teachers
- © Tribal representatives or elders

Ð	Someone else	(please specify):	
		1 //	

- **3.** Who taught you **most** of what you know about American Indian or Alaska Native traditions (ways of life, customs)?
  - No one has taught me about American Indian or Alaska Native traditions.
  - Family members
  - © Friends
  - Teachers
  - Tribal representatives or elders
  - © Someone else (please specify):\_\_\_\_\_

- **4.** Who taught you **most** of what you know about issues today that are important to American Indian or Alaska Native people?
  - One has taught me about issues today that are important to American Indian or Alaska Native people.
  - Family members
  - © Friends
  - Teachers
  - © Tribal representatives or elders

© Someone else (please sp	oecity):
---------------------------	----------

**5.** How often have you participated in each of the following? Select **one** answer choice on each row.

		Never	Every few years	At least once a year	Several times a year	
a.	Ceremonies and gatherings for people from your American Indian tribe or Alaska Native group	<b>®</b>	®	©	0	VH241519
b.	Ceremonies and gatherings that bring people together from many different American Indian tribes or Alaska Native groups	(9)	®	0	Θ	VH241521
c.	Other American Indian or Alaska Native activities	A	®	0	0	VH241520

- **6.** How often do members of your family talk to each other in your American Indian or Alaska Native language?
  - Never or hardly ever
  - ® Once or twice a month
  - Once or twice a week
  - Every day or almost every day

		VH240134
7.	How often do people in your school talk to each other in your American Indian or Alaska Native language?	
	Never or hardly ever	
	® Once or twice a month	
	© Once or twice a week	
	© Every day or almost every day	
		VH240135
8.	How often do you attend classes <b>in school</b> that are taught in an American Indian or Alaska Native language?	
	My school does not offer classes that are taught in an American Indian or Alaska Nat language.	tive
	Never or hardly ever	
	Once or twice a month	
	① Once or twice a week	
	© Every day or almost every day	
9	How do you rate yourself in speaking an American Indian or Alaska Native	VH240136
•	language?	
	I cannot speak an American Indian or Alaska Native language.	
	® I can speak a few words or phrases.	
	© I can speak well.	
4.0	TT 1	VH240137
111	How do you rate yourself in reading an American Indian or Alaska Native	

- **10.** How do you rate yourself in reading an American Indian or Alaska Native language?
  - I cannot read in an American Indian or Alaska Native language.
  - ® I can read a few words or phrases.
  - © I can read well.

- **11.** Who taught you **most** of what you know about an American Indian or Alaska Native language?
  - ① No one has taught me about an American Indian or Alaska Native language.
  - Family members
  - © Friends
  - Teachers
  - © Tribal representatives or elders
  - © Someone else (please specify):\_\_\_\_\_

- **12.** During 8th grade, how often have any of your teachers talked to your class about the history, traditions, and cultures (ways of life, customs) of American Indian or Alaska Native people?
  - Never or hardly ever
  - ® Once or twice a month
  - Once or twice a week
  - © Every day or almost every day

**13.** During 8th grade, have you attended any of the following activities **organized by your school**? Select **one** answer choice on each row.

	Yes	No	
a. Presentations by American Indian or Alaska Native people about their traditions and cultures (ways of life, customs)	<b>®</b>	<b>®</b>	VH241523
b. American Indian or Alaska Native art and craft demonstrations	(4)	®	VH241526
c. Traditional American Indian or Alaska Native music and/or dance performances	<b>(A)</b>	®	VH241525
d. Field trips to museums, traditional villages, or other places to learn about American Indian or Alaska Native people	<b>(</b>	<b>®</b>	VH241524

VH241527

**14.** During 8th grade, have you participated in any of the following activities **organized by your school**? Select **one** answer choice on each row.

	Yes	No	
a. Sports team	<b>(A)</b>	®	VH241528
b. Music club, orchestra, or band	<b>(A)</b>	®	VH241532
c. Cultural dances or other American Indian or Alaska Native activities (for example, drum groups)	<b>®</b>	®	VH241531
d. Academic club (for example, math club)	<b>(A)</b>	®	VH241530

- **15.** During 8th grade, have you used books, videos, or other materials (including Internet resources) about American Indian or Alaska Native people **in school**?
  - A Yes, once or twice
  - Yes, three or more times
  - © No

	outside of school?
	Internet resources) about American Indian or Alaska Native people
16.	During 8th grade, have you used books, videos, or other materials (including

$\overline{}$	<b>T</b> 7			. •
(A)	Vec	Once	or	twice
$\overline{\mathbf{v}}$	100,	OHICC	OI	LWICC

- Yes, three or more times
- © No

- **17. In school**, do you have access to a **library**, **media center**, **or resource center** with books, videos, or other materials (including Internet resources) about American Indian or Alaska Native people?
  - A Yes
  - ® No

**18.** Here are some sentences about reading. Fill in **one** oval on each line to show whether the sentence describes a person like you.

		This is not like me.	This is a little like me.	This is a lot like me.	
a.	When my teacher talks about American Indian or Alaska Native history or culture, I try to read more about it.	<b>(</b>	<b>®</b>	0	VH241536
b.	I enjoy reading about American Indian or Alaska Native people.	(A)	B	0	VH241538
c.	I enjoy reading about people who have different traditions and cultures (ways of life, customs) than I have.	<b>(</b>	<b>®</b>	0	VH241537

VH241544

19. Here are some sentences about your school. Fill in **one** oval on each line to show whether the sentence describes a person like you.

	This is not like me.	This is a little like me.	This is a lot like me.	
a. I put a lot of effort into my schoolwork.	<b>(A)</b>	®	0	VH241540
b. I want to be one of the best students in my class.	(A)	®	0	VH241543
c. I enjoy being challenged in my classes.	<b>(A)</b>	®	0	VH241542
d. I feel that I belong at school.	(A)	®	0	VH241541

**20.** How much do you agree with each of the following statements? Select **one** answer choice on each row.

	Strongly disagree	Disagree	Agree	Strongly agree	
a. If I put in enough effort, I will succeed in school.	<b>(A)</b>	®	0	0	VH241545
b. If I put in enough effort in school, I will get into college.	<b>(A)</b>	®	0	0	VH241547
c. If I put in enough effort in school, I will get a good job.	<b>®</b>	®	0	0	VH241546

- 21. How much do you like school?
  - Not at all
  - A little
  - © Somewhat
  - O Very much

V	H2	40	116	(2)

22.	How much are the things you are learning in school preparing you for the life you want to lead?
	Not at all
	A little
	© A fair amount

- **23.** During 8th grade, how often have you talked with any of your teachers outside of regular class periods? For example, to get extra help with your assignments, to talk about issues that matter to you, or just to visit.
  - Never or hardly ever

O Very much

- ® Once or twice a month
- Once or twice a week
- © Every day or almost every day

- **24.** How often do **you** help other students from your school with their schoolwork? For example, you might help other students to study for a test, help them with a school project, or go over their homework with them.
  - Never or hardly ever
  - ® Once or twice a month
  - Once or twice a week
  - D Every day or almost every day

**25.** How often do any of the following people help you with your schoolwork? For example, they might help you to study for a test, help you with a school project, or go over your homework with you. Select **one** answer choice on each row.

	Never or hardly ever	Once or twice a month	Once or twice a week	Every day or almost every day	
a. A parent or someone else from my family	<b>(A)</b>	®	0	0	VH241549
b. A teacher or another adult from my school	A	®	0	0	VH241550
c. Another student	(A)	®	0	0	VH241553
d. A tribal representative or elder	(A)	®	0	0	VH241551

VH241554

**26.** During 8th grade, how many times have you talked to each of the following people about the classes you should take in high school or about what you want to do after high school? Select **one** answer choice on each row.

	Never	One time	Two or three times	Four or more times	
a. A family member	A	®	0	0	VH241555
b. A teacher	(A)	₿	0	0	VH241556
c. A school counselor	(A)	₿	0	0	VH241557
d. Another student	(A)	₿	0	0	VH241561
e. A tribal representative or elder	(4)	®	0	0	VH241560
f. Someone else who lives in my community or is a friend of my family	(8)	®	0	0	VH241558

# **27.** Do you plan to do any of the following in your first year after high school? Select **one** answer choice on each row.

	Yes	No	
a. Go to college full time	A	®	VH241563
b. Go to college part time	<b>(A)</b>	®	VH241564
c. Go to another school (for example, career training, technical, or trade/vocational) full time	0	®	VH241565
d. Go to another school (for example, career training, technical, or trade/vocational) part time	<b>®</b>	©	VH241566
e. Join the military	<b>(A)</b>	®	VH241572
f. Work full time	<b>(A)</b>	®	VH241568
g. Work part time	A	®	VH241569
h. Travel	A	®	VH241570
i. Care for family	(A)	®	VH241571
j. I don't know.	(A)	®	VH241567

**28.** To what extent is each of the following a problem in your school? Select **one** answer choice on each row.

	Not at all	Small extent	Moderate extent	Large extent	
a. Student tardiness	(A)	®	0	0	VH241574
b. Student health problems	<b>(A)</b>	®	0	0	VH241575
c. Student misbehavior in class	A	®	0	0	VH241576
d. Physical conflicts among students	<b>(A)</b>	®	0	0	VH241580
e. Bullying	(A)	®	0	0	VH241578
f. Low student motivation	(A)	®	0	0	VH241579

- **29.** Do you know the name of the American Indian tribe or Alaska Native group you belong to or are enrolled in?
  - A Yes
  - ® No
  - © I'm not sure.

30.	If you know the name of the American Indian tribe or Alaska Native group that you belong to or are enrolled in, or if you think you know it, please print it on the line below. Do not worry about spelling. If you belong to more than one American Indian tribe or Alaska Native group, write the names of as many as you know.	
31.	What else would you like to say about yourself, your school, or about American Indian or Alaska Native people? Use these lines to write your ideas.	VH242882

### **Appendix K-1aw: Summary of Changes Operational Grade 4 CAFS**

Previous item				2019 item	D/A/ R/NC+	Rationale			
1. At home, do you have any of the following? S	elect one answer cho	ice on each row.	1. At home, do you have any of the following? Select one answer choice on each row,					N/A	
	Yes	No			Yes	No			
a. A laptop or desktop computer that is only for your use	0	0	VH270141	a. A laptop or desktop computer that is only	<b>®</b>	0	V1(27014)		
b. A laptop or desktop computer that is shared between you and others	•	(5)	VH270142	b. A laptop or desktop computer that is	Φ	0	VH270142		
c. A tablet that is only for your use	Φ	<b>®</b>	VH270170	shared between you and others c. A tablet that is only for your use	0	0	VH270139		
d. A tablet that is shared between you and others	<b>©</b>	•	VH270140	d. A tablet that is shared between you and	0	0	VII270140		
e. Wi-Fi or some other Internet connection	Φ.	(1)	VH270343	e. Wi-Fi or some other Internet connection					
f. A smartphone that is only for your use	(0)	Ф	VH270194	you can use f. A smartphone that is only for your use	0	0	VH270143 VH270144		
<ul> <li>☼ I have never used one.</li> <li>☼ Before I was in kindergarten</li> <li>☼ When I was in kindergarten</li> <li>ῷ When I was in first, second, or third grade</li> <li>ῷ When I was in fourth grade</li> </ul> (2017 Grade 4)			V1127/002	<ul> <li>☼ I have never used one.</li> <li>☼ Before I was in kindergarten</li> <li>☼ When I was in kindergarten</li> <li>ῷ When I was in first, second, or third grade</li> <li>భ When I was in fourth grade</li> </ul>			V1070992	NC	N/A
3. When did you first use a tablet?  ⚠ Never until this assessment  ᠿ Before I was in kindergarten  ᠿ When I was in kindergarten  ᠿ When I was in first, second, or third grade  ᠿ When I was in fourth grade			3. When did you first use a tablet?  ② Never until this assessment  ③ Before I was in kindergarten  ③ When I was in kindergarten  ⑤ When I was in first, second, or third grade  ⑤ When I was in fourth grade						
(2017 Grade 4)			2444-120						
4. When did you first use a smartphone? <ul> <li>□ I have never used one.</li> <li>□ Before I was in kindergarten</li> <li>□ When I was in kindergarten</li> <li>□ When I was in first, second, or third grade</li> <li>□ When I was in fourth grade</li> </ul>			V1270101	<ul> <li>4. When did you first use a smartphone?</li> <li>I have never used one.</li> <li>Before I was in kindergarten</li> <li>When I was in kindergarten</li> <li>When I was in first, second, or third grade</li> <li>When I was in fourth grade</li> </ul>			VH220101	NC	N/A

Previous item			2019 item	D/A/ R/NC+	Rationale				
On a weekday, about how many hours do you u doing schoolwork, including homework?	se a laptop or deskt	op computer for	-VH276147	5. On a weekday, about how many hours do you u doing schoolwork, including homework?	VH270147	NC	N/A		
None				None					
D Less than an hour				Less than an hour					
© 1 to 2 hours				© 1 to 2 hours					
© 2 to 3 hours				© 2 to 3 hours					
3 to 4 hours				© 3 to 4 hours					
More than 4 hours				More than 4 hours					
(2017 Grade 4)									
(2017 Glade 4)			VH270148				VH290148	NC	NI/A
6. On a weekday, about how many hours do you u including homework?	se a <b>tablet</b> for doing	schoolwork,		6. On a weekday, about how many hours do you u including homework?		NC	N/A		
None				None					
D Less than an hour				Less than an hour					
O 1 to 2 hours				© 1 to 2 hours					
© 2 to 3 hours				© 2 to 3 hours					
© 3 to 4 hours				© 3 to 4 hours					
More than 4 hours				More than 4 hours					
(2017 Crada 1)									
(2017 Grade 4)  7. Were you taught any of the following at school	l? Select one answer	choice on each row.	VHS97657	Were you taught any of the following at school	17 Select one answer	choice on each row.	VH597637	NC	N/A
	Yes	No			Yes	No			
How to type on a computer keyboard using the correct fingers	0	00	VH270150	How to type on a computer keyboard using the correct fingers	•	0	VH270150		
b. How to write sentences and paragraphs using a computer	0	Φ	VH270351	b. How to write sentences and paragraphs using a computer	•	0	VH27015E		
c. How to edit text using a computer	0	Ф	VF1270104	c. How to edit text using a computer	<b>©</b>	⊕	VH270164		
d. How to search for information on the Internet	(3)	0	VH270152	d. How to search for information on the Internet	0	<b>®</b>	VH270152		
e. How to use a tablet	<b>®</b>	00	VT1270156	e. How to use a tablet	<b>©</b>	Φ	VH270156		
f. How to look up the meaning of a word using a computer	0	0	VHI2/0152	f. How to look up the meaning of a word using a computer	0	0	V1)270157		

Previous item				2019 item				D/A/ R/NC+	Rationale
8. Which of the following are true about the way school? Select one answer choice on each row		our teachers use co	nputers at	8. Which of the following are true about the way school? Select one answer choice on each row.		ur teachers use cor	nputers at	NC	N/A
	Yes	No			Yes	No			
In most of my classes there are laptop or desktop computers that I can use for schoolwork.	•	•	VH270166	In most of my classes there are laptop or desktop computers that I can use for schoolwork.	<b>@</b>	<b>®</b>	VH270166		
b. In most of my classes there are tablets that I can use for schoolwork.	<b>®</b>	0	121270167	b. In most of my classes there are tablets that I can use for schoolwork.	•	0	VH270167		
c. There is Wi-Fi or some other Internet connection that I can use for schoolwork.	•	•	V11270 (70)	c. There is Wi-Fi or some other Internet connection that I can use for schoolwork.	Φ	•	VH270170		
d. Most of my teachers use computers when teaching my classes.	<b>©</b>	0	VHI270369	<li>d. Most of my teachers use computers when teaching my classes.</li>	0	00	V11270169		
Most of my teachers require us to use computers in the classroom.	8	0	V1127016#	e. Most of my teachers require us to use computers in the classroom.	0	(8)	VH270168		
(2017 Grade 4)  9. Has your school assigned you a laptop or deskt  No  Yes, but I cannot take it home with me.  Yes, and I can take it home with me (laptop		y you can use?	VH270H4	9. Has your school assigned you a laptop or deskto  No  Pes, but I cannot take it home with me.  Yes, and I can take it home with me (laptop		y you can use?	VH270116	NC	N/A
(2017 Grade 4)			VICENIT				VH270117	NC	N/A

Previous item							2019 item							D/A/ R/NC+	Rationale
11. This school year, how often have you used a laptop or desktop computer to do each of the following? Select one answer choice on each row.						11. This school year, how often have you used a laptop or desktop computer to do each of the following? Select one answer choice on each row.								N/A	
	Never	A few times	Once every few weeks	About once a week	More than once a week			Never	A few times	Once every few weeks	About once a week	More than once a week			
Write a short paper (less than a page) for school	0	(3)	0	0	0	VH270172	Write a short paper (less than a page) for school	•	Ф	0	0	Φ	VH270172		
b. Write a paper for school that was longer than a page	•	•	0	0	Ф	VH270175	b. Write a paper for school that was longer than a page	<b>®</b>	(D)	0	Φ	Ф	VH270174		
c. Search the Internet for a school project	<b>®</b>	•	9	Φ	Φ	V94270174	c. Search the Internet for a school project	0	<b>®</b>	0	0	0	V21270174		
d. Practice things in mathematics that you were having trouble learning	0	(1)	0	0	Φ	VH270(8)	d. Practice things in mathematics that you were having trouble	0	Φ	0	0	0	VF070181		
e. Practice things in reading that you were having trouble learning	0	•	0	0	Φ	VHZ/01/7	e. Practice things in reading that you were having trouble	0	0	9	0	0	VEGS-BH-77		
f. Take a test	0	•	Φ	Φ	Φ	VHZ70175	learning f. Take a test	0	Φ	0	0	Ф.	VH270175		
12. This school year, how choice on each row.	20.000					vii567752 answer	12. This school year, how o choice on each row.						viis9733 answer	NC	N/A
choice on each row.	Never	A few times	t to do each o Once every few weeks	About once a week	More than	vasarrsz answer		often have y Never	A few times	Once every few weeks	About once		viii99733 answer	NC	N/A
a. Write a short paper (less than a page) for school	20.000		Once every	About once	More than	V189752 answer	a. Write a short paper (less than a page) for school			Once every	About once	More than	V8597752 BINSWET	NC	N/A
a. Write a short paper (less than a page) for school b. Write a paper for school that was longer than a page	Never	A few times	Once every few weeks	About once a week	More than once a week		a. Write a short paper (less than a page) for	Never	A few times	Once every few weeks	About once a week	More than once a week		NC	N/A
a. Write a short paper (less than a page) for school b. Write a paper for school that was longer than a page c. Search the Internet for a school project	Never	A few times	Once every few weeks	About once a week	More than once a week	VH279183	a. Write a short paper (less than a page) for school b. Write a paper for school that was longer	Never	A few times	Once every few weeks	About once a week	More than once a week	VHD20184	NC	N/A
a. Write a short paper (less than a page) for school b. Write a paper for school that was longer than a page c. Search the Internet for a school project d. Practice things in mathematics that you were having trouble learning	Never ©	A few times	Once every few weeks	About once a week	More than once a week	VH270183	a. Write a short paper (less than a page) for school b. Write a paper for school that was longer than a page c. Search the Internet for a school project d. Practice things in mathematics that you were having trouble	Never	A few times	Once every few weeks	About once a week	More than once a week	VH220183	NC	N/A
a. Write a short paper (less than a page) for school b. Write a paper for school that was longer than a page c. Search the Internet for a school project d. Practice things in mathematics that you were having trouble	Never ©	A few times	Once every few weeks	About once a week	More than once a week	V9427G183 V9527G184 V9527G184	a. Write a short paper (less than a page) for school b. Write a paper for school that was longer than a page c. Search the Internet for a school project d. Practice things in mathematics that you were having trouble learning e. Practice things in reading that you were having trouble	Never	A few times	Once every few weeks	About once a week	More than once a week	VH220184 VH220185 VH220184	NC	N/A
a. Write a short paper (less than a page) for school b. Write a paper for school that was longer than a page c. Search the Internet for a school project d. Practice things in mathematics that you were having trouble learning e. Practice things in reading that you were having trouble	Never ©	A few times	Once every few weeks  ©  ©  ©	About once a week	More than once a week	V94270163 V91270164 V16270164 V16270165	a. Write a short paper (less than a page) for school b. Write a paper for school that was longer than a page c. Search the Internet for a school project d. Practice things in mathematics that you were having trouble learning e. Practice things in reading that you were	Never	A few times	Once every few weeks	About once a week	More than once a week	V94270188 V16270188 V16270184 V16270184	NC	N/A
a. Write a short paper (less than a page) for school b. Write a paper for school that was longer than a page c. Search the Internet for a school project d. Practice things in mathematics that you were having trouble learning e. Practice things in reading that you were having trouble learning for the project of the practice things in reading that you were having trouble learning f. Take a test	Never ©  ©  ©  ©	A few times	Once every few weeks	About once a week	More than once a week	V91270164 V91270164 V91270164 V91270166 V91270166 V91270166	a. Write a short paper (less than a page) for school b. Write a paper for school that was longer than a page c. Search the Internet for a school project d. Practice things in mathematics that you were having trouble learning e. Practice things in reading that you were having trouble learning	Never	A few times	Once every few weeks	About once a week	More than once a week	VEGINERA VEGINERA VEGINERA VEGINERA VEGINERA VEGINERA VEGINERA	NC	
a. Write a short paper (less than a page) for school b. Write a paper for school that was longer than a page c. Search the Internet for a school project d. Practice things in mathematics that you were having trouble learning e. Practice things in reading that you were having trouble learning that you were having trouble learning	Never	A few times	Once every few weeks  ©  ©  ©  outer keyboard who are the control of the control	About once a week	More than once a week	VH270163 VH270164 VH270165 VH270166	a. Write a short paper (less than a page) for school b. Write a paper for school that was longer than a page c. Search the Internet for a school project d. Practice things in mathematics that you were having trouble learning e. Practice things in reading that you were having trouble learning	Never	A few times  D  D  Type on a computer keers, but I have ters, and I know	Once every few weeks	About once a week	More than once a week	V942701888 V742701888 V742701888 V742701885	NC NC	N/A

Previous item						2019 item						D/A/ R/NC+	Rationale
14. Would you rather take a te  Paper and pencil Computer  (2017 Grade 4)	st at school using	paper and penc	il or using a com	puter?	14. Would you rather take a test at school using paper and pencil or using a computer?  © Paper and pencil © Computer							N/A	
15. Do you think you would now.	e able to do each	of the following	g? Select one ans	wer choice on e	each	<ol><li>Do you think you would b row.</li></ol>	e able to do each	of the followin	g? Select one and	swer choice on e	ach yasana	NC	N/A
	I definitely can't.	I probably can't.	I probably can.	I definitely can.			I definitely can't.	I probably can't.	I probably can.	I definitely can.			
Write sentences and paragraphs using a computer	0	Θ	9	0	V18270229	Write sentences and paragraphs using a computer	•	•	ø	0	VH270220		
b. Edit text using a computer	00	0	9	0	V11270218	b. Edit text using a computer	<b>®</b>	0	0	Ф	VIETNOIS		
c. Use a touchscreen on a computer, tablet, or smartphone	0	(3)	0	0	VH270230	c. Use a touchscreen on a computer, tablet, or smartphone	0	0	0	0	VID TO JO		
d. Look up the meaning of a word using a computer	0	0	9	Ф	VH270025	d. Look up the meaning of a word using a computer	<b>®</b>	Φ	0	•	VII270225		
e. Draw a picture using a computer	Φ	•	0	Φ	VH270216	e. Draw a picture using a computer	0	0	0	0	VH270226		
2017 Grade 4) 16. How familiar are you with	Never heard of		e answer choice  Heard of it often	on each row.  Know it well, understand the concept	VH270166	16. How familiar are you with	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH607764	NC	N/A
a Wi-Fi	Φ	0	0	0	VH270197	a. Wi-Fi b. Firewall	0	00	0	9	VH270196		
a. Wi-Fi b. Firewall	@	Φ-	0	0	VH270199	c. Neuro-digital computing	0	0	0	9	\$16270194		
		(3)	0	0	VH270300	d. Instant messaging	9	0	0	0	V11270200		
b. Firewall	0	<b>®</b>	0	0	VH270203	e. Cut and paste	Ø	0	0	9	VH270203		
b. Firewall c. Neuro-digital computing	8		0	0	V11270204	f. Pyramidal browser	Ø	0	0		171270204		
b. Firewall c. Neuro-digital computing d. Instant messaging		0		0	V11270096	g. Spreadsheet	<b>®</b>	•	0	9	VH276206		
b. Firewall c. Neuro-digital computing d. Instant messaging e. Cut and paste f. Pyramidal browser g. Spreadsheet	0		0	4	0.000			- 4			VH270207		
b. Firewall c. Neuro-digital computing d. Instant messaging e. Cut and paste f. Pyramidal browser g. Spreadsheet h. Limbic wire	Ø Ø	0	0	0	VH2/0007	h. Limbic wire	Φ	(3)	0	(D)	VH270207		
b. Firewall c. Neuro-digital computing d. Instant messaging e. Cut and paste f. Pyramidal browser g. Spreadsheet h. Limbic wire i. Spinalbyte	8 8 9 9	© © ©	9 9	0	VH270007 VH270006	h. Limbic wire i. Spinalbyte	9	0	9	9	VH270207 VH270208		
b. Firewall c. Neuro-digital computing d. Instant messaging e. Cut and paste f. Pyramidal browser g. Spreadsheet h. Limbic wire	© © ©	(B)	0	0	VH270007						-		

### **Appendix K-1ax: Operational Grade 4 CAFS**

1. At home, do you have any of the following? Select one answer choice on each row.

	Yes	No	
a. A <b>laptop or desktop computer</b> that is only for your use	<b>(A)</b>	®	VH270141
b. A <b>laptop or desktop computer</b> that is shared between you and others	<b>(</b>	®	VH270142
c. A <b>tablet</b> that is only for your use	(A)	®	VH270139
d. A <b>tablet</b> that is shared between you and others	<b>(A)</b>	®	VH270140
e. <b>Wi-Fi</b> or some other <b>Internet connection</b> you can use	<b>(</b>	®	VH270143
f. A <b>smartphone</b> that is only for your use	(A)	®	VH270144

VH270100

#### 2. When did you first use a laptop or desktop computer?

- I have never used one.
- Before I was in kindergarten
- When I was in kindergarten
- When I was in first, second, or third grade
- When I was in fourth grade

VH270092

#### **3.** When did you first use a **tablet**?

- Never until this assessment
- ® Before I was in kindergarten
- When I was in kindergarten
- When I was in first, second, or third grade
- When I was in fourth grade

		VH270101
4.	When did you first use a <b>smartphone</b> ?	
	I have never used one.	
	® Before I was in kindergarten	
	© When I was in kindergarten	
	When I was in first, second, or third grade	
	© When I was in fourth grade	
		VH270147
5.	<b>On a weekday</b> , about <b>how many hours</b> do you use a <b>laptop or desktop computer</b> for doing schoolwork, including homework?	
	None	
	® Less than an hour	
	© 1 to 2 hours	
	© 2 to 3 hours	
	© 3 to 4 hours	
	© More than 4 hours	
		VH270148
6.	On a weekday, about how many hours do you use a tablet for doing schoolwork, including homework?	
	None	
	® Less than an hour	
	© 1 to 2 hours	
	© 2 to 3 hours	
	© 3 to 4 hours	
	© More than 4 hours	

7. Were you taught any of the following at school? Select one answer choice on each row.

	Yes	No	
a. How to type on a computer keyboard using the correct fingers	<b>((0</b> )	®	VH270150
b. How to write sentences and paragraphs using a computer	<b>®</b>	®	VH270151
c. How to edit text using a computer	(A)	®	VH270164
d. How to search for information on the Internet	<b>®</b>	®	VH270152
e. How to use a tablet	(A)	®	VH270156
f. How to look up the meaning of a word using a computer	<b>®</b>	®	VH270157

**8.** Which of the following are true about the ways in which you and your teachers use computers **at school**? Select **one** answer choice on each row.

		Yes	No	
de	most of my classes there are <b>laptop or</b> esktop computers that I can use for hoolwork.	<b>(A)</b>	<b>®</b>	VH270166
b. In	most of my classes there are <b>tablets</b> that can use for schoolwork.	<b>(A)</b>	<b>®</b>	VH270167
	here is <b>Wi-Fi</b> or some other <b>Internet</b> onnection that I can use for schoolwork.	<b>(A)</b>	<b>®</b>	VH270170
d. Mo	ost of my teachers use computers when aching my classes.	<b>(A)</b>	<b>®</b>	VH270169
	ost of my teachers require us to use imputers in the classroom.	<b>(A)</b>	<b>®</b>	VH270168

VH270116

- 9. Has your school assigned you a laptop or desktop computer that only you can use?
  - No
  - ® Yes, but I cannot take it home with me.
  - Yes, and I can take it home with me (laptop only).

- 10. Has your school assigned you a tablet that only you can use?
  - No
  - ® Yes, but I cannot take it home with me.
  - © Yes, and I can take it home with me.

**11. This school year**, how often have you used a **laptop or desktop computer** to do each of the following? Select **one** answer choice on each row.

		Never	A few times	Once every few weeks	About once a week	More than once a week	
a.	Write a short paper (less than a page) for school	<b>®</b>	®	0	0	©	VH270172
b.	Write a paper for school that was longer than a page	<b>(A)</b>	®	0	0	©	VH270173
c.	Search the Internet for a school project	<b>(</b> A)	B	0	0	Ē	VH270174
d.	Practice things in mathematics that you were having trouble learning	0	®	0	Φ	©	VH270181
e.	Practice things in reading that you were having trouble learning	<b>®</b>	®	0	0	©.	VH270177
f.	Take a test	A	®	0	0	©	VH270175

**12. This school year**, how often have you used a **tablet** to do each of the following? Select **one** answer choice on each row.

		Never	A few times	Once every few weeks	About once a week	More than once a week	
a.	Write a short paper (less than a page) for school	<b>®</b>	®	0	0	Œ	VH270183
b.	Write a paper for school that was longer than a page	Ø	®	0	0	Œ	VH270188
c.	Search the Internet for a school project	A	B	0	0	Œ	VH270184
d.	Practice things in mathematics that you were having trouble learning	<b>®</b>	®	0	0	©.	VH270185
e.	Practice things in reading that you were having trouble learning	<b>®</b>	®	0	Φ	Œ	VH270186
f.	Take a test	(A)	®	0	0	©	VH270192

VH270130

- **13.** Which best describes the way you type on a computer keyboard?
  - I don't know how to type using a computer keyboard.
  - ® I can type with one or two fingers, but I have to search for where the letter keys are.
  - © I can type with one or two fingers, and I know where most of the letter keys are.

  - © I can type with all ten fingers without looking at the keyboard.

VH270132

- 14. Would you rather take a test at school using paper and pencil or using a computer?
  - Paper and pencil
  - ® Computer

**15.** Do you think you would be able to do each of the following? Select **one** answer choice on each row row.

		I definitely can't.	I probably can't.	I probably can.	I definitely can.	
a.	Write sentences and paragraphs using a computer	<b>(A)</b>	®	0	0	VH270229
b.	Edit text using a computer	<b>(A)</b>	®	0	0	VH270218
c.	Use a touchscreen on a computer, tablet, or smartphone	(8)	®	0	0	VH270230
d.	Look up the meaning of a word using a computer	(A)	®	0	Θ	VH270225
e.	Draw a picture using a computer	A	®	0	0	VH270226

**16.** How familiar are you with each of the following? Select **one** answer choice on each row.

	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	
a. Wi-Fi	A	®	0	0	VH270196
b. Firewall	A	®	0	0	VH270197
c. Neuro-digital computing	A	®	0	0	VH270199
d. Instant messaging	A	®	0	0	VH270200
e. Cut and paste	(A)	®	0	0	VH270203
f. Pyramidal browser	A	®	0	0	VH270204
g. Spreadsheet	A	®	0	0	VH270206
h. Limbic wire	A	®	0	0	VH270207
i. Spinalbyte	A	®	0	0	VH270208
j. Server	A	®	0	0	VH270210
k. Callosum board	(A)	<b>®</b>	0	0	VH270214

## **Appendix K-1ay: Summary of Changes Operational Grade 8 CAFS**

Previous item				2019 item	D/A/ R/NC+	Rationale			
1. At home, do you have any of the following? Sel	ect one answer choice	ce on each row.	VH270138	1. At home, do you have any of the following? Se	NC	N/A			
	Yes	No			Yes	No			
a. A laptop or desktop computer that is only for your use	Φ	0	VH270141	a. A laptop or desktop computer that is only for your use	<b>®</b>	0	VH270141		
b. A laptop or desktop computer that is shared between you and others	Φ	Φ	VH270142	b. A laptop or desktop computer that is shared between you and others	0	0	VH270142		
c. A tablet that is only for your use	0	•	VH270139	c. A tablet that is only for your use	Φ.	0	VH270159		
d. A tablet that is shared between you and others	@	0	VH270190	d. A tablet that is shared between you and	8	0	VI1270140		
e. Wi-Fi or some other Internet connection you can use	0	0	VH270143	e. Wi-Fi or some other Internet connection	<b>®</b>	0	VH270143		
f. A smartphone that is only for your use	<b>®</b>	0	V212703#4	f. A smartphone that is only for your use	0	0	VII270144		
(2017 Grade 8)									
2017 Grade 8)	A		VH270145		7		YH270145	NC	N/A
2. When did you first use a laptop or desktop comp	outer?			2. When did you first use a laptop or desktop com	puter?			INC.	13/7
I have never used one.				I have never used one.					
Before I was in kindergarten				Before I was in kindergarten					
When I was in kindergarten				When I was in kindergarten					
When I was in first, second, or third grade				When I was in first, second, or third grade					
D When I was in fourth or fifth grade				When I was in fourth or fifth grade					
<ul> <li>When I was in sixth, seventh, or eighth grade</li> </ul>				When I was in sixth, seventh, or eighth grad	le				
(2017 Grade 8)									
			VH270090	100 c 100 c 100 c 100 c			VH276090	NC	N/A
3. When did you first use a tablet?				3. When did you first use a tablet?					.,,,,
Never until this assessment				<ul> <li>Never until this assessment</li> </ul>					
Before I was in kindergarten				Before I was in kindergarten					
When I was in kindergarten				<ul> <li>When I was in kindergarten</li> </ul>					
When I was in first, second, or third grade				When I was in first, second, or third grade					
When I was in fourth or fifth grade				When I was in fourth or fifth grade					
<ul> <li>When I was in sixth, seventh, or eighth grade</li> </ul>	2			<ul> <li>When I was in sixth, seventh, or eighth grad</li> </ul>	le				
(2017 Grade 8)									
4. When did you first use a smartphone?			VH270146	4. When did you first use a smartphone?			VH270146	NC	N/A
⊕ 1 have never used one.									
Before I was in kindergarten				Before I was in kindergarten					
When I was in kindergarten				When I was in kindergarten					
When I was in first, second, or third grade				When I was in first, second, or third grade					
When I was in fourth or fifth grade				When I was in fourth or fifth grade					
When I was in sixth, seventh, or eighth grade	2			When I was in fourth or fifth grade      When I was in sixth, seventh, or eighth grade	le				
				The state of the s					1

Previous item				2019 item	D/A/ R/NC+	Rational			
5. On a weekday, about how many hours do you doing schoolwork, including homework?	use a laptop or deskto	p computer for	VH230147	On a weekday, about how many hours do you us doing schoolwork, including homework?	NC	N/A			
None				None					
Less than an hour				D Less than an hour					
© 1 to 2 hours				© 1 to 2 hours					
© 2 to 3 hours									
© 3 to 4 hours				© 2 to 3 hours					
More than 4 hours				© 3 to 4 hours					
Whole than 4 hours				More than 4 hours					
(2017 Grade 8)									
Market and the second second	44.7		VH270148		172	4 4	VID70148	NC	N/A
6. On a weekday, about how many hours do you including homework?	use a tablet for doing	schoolwork,		6. On a weekday, about how many hours do you u including homework?	se a <b>tablet</b> for doing	schoolwork,			.,,,,
None				None					
Less than an hour				D Less than an hour					
© 1 to 2 hours				© 1 to 2 hours					
© 2 to 3 hours				© 2 to 3 hours					
© 3 to 4 hours				© 3 to 4 hours					
More than 4 hours				More than 4 hours					
(2017 Grade 8)									
			VH270149			Constitution State 1	VII220049		
7. Were you taught any of the following at school	ol? Select one answer	choice on each row.		<ol><li>Were you taught any of the following at school</li></ol>	l? Select one answer	choice on each row.		NC	N/A
	Yes	No			Yes	No			
How to type on a computer keyboard using the correct fingers	0	•	VH270150	How to type on a computer keyboard using the correct fingers	0	•	VH270150		
b. How to write sentences and paragraphs using a computer	@	•	VH270156	b. How to write sentences and paragraphs	•	•	V142.70151		
c. How to edit text using a computer	Φ	(1)	VH270164	using a computer c. How to edit text using a computer	Φ	Φ	VH270164		
d. How to search for information on the	Ф	Φ.	VHZ70162	d. How to search for information on the			VH270152		
Internet e. How to use a tablet	•	0	VH270156	Internet	<b>®</b>	(1)			
f. How to look up the meaning of a word	0	0	VH270157	How to use a tablet     How to look up the meaning of a word	Ø	•	VH270156		
using a computer	0	9	VINLINIST	using a computer	0	<b>(D)</b>	V14270157		
g. How to create a spreadsheet using a	Ø	0	VH270154	g. How to create a spreadsheet using a	<b>®</b>	•	VH270154		
computer	Φ.	0	VH270155	h. How to create a presentation using a			100		
h. How to create a presentation using a		0	VH270159	computer	0	0	VH270155		
h. How to create a presentation using a computer		0	VH270166	i. How to run simulations using a computer	0	0	V10270159		
computer  h. How to create a presentation using a computer  i. How to run simulations using a computer	Ø	40			@	(1)	VH270160		
computer  h. How to create a presentation using a computer  i. How to run simulations using a computer  j. How to write a computer program or app  k. How to create a graph or chart using a	0		VHII/DIGE	j. How to write a computer program or app					
computer  h. How to create a presentation using a computer  i. How to run simulations using a computer  j. How to write a computer program or app		•		k. How to write a computer program or app k. How to create a graph or chart using a computer	•	(0)	VH270161		

Previous item				2019 item	D/A/ R/NC+	Rationale			
8. Which of the following are true about the way school? Select one answer choice on each row		our teachers use co	nputers at	<ol> <li>Which of the following are true about the way school? Select one answer choice on each row.</li> </ol>	NC	N/A			
	Yes	No			Yes	No	7		
In most of my classes there are laptop or desktop computers that I can use for schoolwork.	Φ.	<b>®</b>	V11270166	a. In most of my classes there are laptop or desktop computers that I can use for schoolwork.	<b>@</b>	Φ.	V10270166		
b. In most of my classes there are tablets that 1 can use for schoolwork.	0	•	VH270167	b. In most of my classes there are tablets that I can use for schoolwork.	<b>®</b>	00	VH270167		
c. There is Wi-Fi or some other Internet connection that I can use for schoolwork.	@	<b>®</b>	VH270170	c. There is Wi-Fi or some other Internet connection that I can use for schoolwork.	•	Φ	VIII27017G		
d. Most of my teachers use computers when teaching my classes.	0	0	VH1270169	d. Most of my teachers use computers when teaching my classes.	0	Ф	V81270169		
Most of my teachers require us to use computers in the classroom.	0	•	VH127016#	e. Most of my teachers require us to use computers in the classroom.	0	0	V11270166		
(2017 Grade 8)  9. Has your school assigned you a laptop or deskt  No  Yes, but I cannot take it home with me.  Yes, and I can take it home with me (laptop		ly you can use?	VH270116	<ul> <li>9. Has your school assigned you a laptop or deskto</li> <li>No</li> <li>Yes, but I cannot take it home with me.</li> <li>Yes, and I can take it home with me (laptop)</li> </ul>		y you can use?	VH270116	NC	N/A
10. Has your school assigned you a tablet that onl  No  Yes, but I cannot take it home with me.  Yes, and I can take it home with me.	y you can use?		VH270[17	10. Has your school assigned you a tablet that only  No  Yes, but I cannot take it home with me.  Yes, and I can take it home with me.	you can use?		VID20117	NC	N/A

Previous item	2019 item								D/A/ R/NC+	Rationale					
11. This school year, how following? Select one			p or desktop c	omputer to de	o each of the	VH270171	11. This school year, how of following? Select one an			p or desktop c	omputer to de	each of the	V11270171	NC	N/A
	Never	A few times	Once every few weeks	About once a week	More than once a week			Never	A few times	Once every few weeks	About once a week	More than once a week			
a. Write a short paper (less than a page) for school	0	•	9	0	Φ	VH276972	Write a short paper (less than a page) for school	0	0	9	9	0	VIII270172		
b. Write a paper for school that was longer than a page	•	0	Θ	0	Φ	vacanata	b. Write a paper for school that was longer than a page	<b>@</b>	Φ	0	0	0	V11270173		
<ul> <li>Search the Internet for a school project</li> </ul>	0	0	9	Φ	0	VH270)7a	c. Search the Internet for a school project	0	00	9	0	0	N21220174		
d. Practice things in mathematics that you were having trouble learning	Φ	Φ	9	0	Φ	VHIZTIDAT	d. Practice things in mathematics that you were having trouble learning	<b>®</b>	Φ.	9	0	Ф	vicinisi		
e. Practice things in reading that you were having trouble learning	<b>©</b>	Ф	0	<b>6</b>	Φ	VH12701177	c. Practice things in reading that you were having trouble learning	<b>®</b>	Ф	9	0	0	vecasing		
f. Take a test	0	0	Θ	0	Φ	VH270179	f. Take a test	Ø	0	0	0	•	VH270175		
g. Create a map	Ø	(0)	0	0	0	VH270178	g. Create a map	<b>®</b>	0	0	9	Φ	VH270178		
h. Work on a website or blog that you maintain	0	•	0	0	0	VH270179	h. Work on a website or blog that you maintain	0	0	9	0	0	VH270179		
<ol> <li>Create a multimedia presentation on your own</li> </ol>	9	•	9	0	Ф	VH270180	Create a multimedia     presentation on your	@	0	0	0	Ф	V18270180		
<li>j. Work collaboratively with a team of students to create a multimedia presentation</li>	0	60	9	9	0	VH270176-	j. Work collaboratively with a team of students to create a multimedia	<b>®</b>	Φ.	0	69	00	VH270176		

Previous item							2019 item							D/A/ R/NC+	Rationale
12. This school year, how choice on each row.	often have y	ou used a <b>table</b>	t to do each of	the followin	g? Select one a	vinnels: answer	12. This school year, how often have you used a tablet to do each of the following? Select one answer choice on each row.							NC	N/A
	Never	A few times	Once every few weeks	About once a week	More than once a week			Never	A few times	Once every few weeks	About once a week	More than once a week			
a. Write a short paper (less than a page) for school	•	Ф	0	Ф	Ф	VH270163	a. Write a short paper (less than a page) for school	6	•	0	6	9	V11270183		
b. Write a paper for school that was longer than a page	0	•	0	9	0	\$71270368	b. Write a paper for school that was longer than a page	0	(3)	0	0	0	VH270184		
c. Search the Internet for a school project	0	0	9	9	0	VH270184	c. Search the Internet for a school project	@	0	0	0	©	VH270184		
d. Practice things in mathematics that you were having trouble learning	ø	0	9	6	Ф	VH270185	d. Practice things in mathematics that you were having trouble learning	•	•	0	0	0	V1/270165		
e. Practice things in reading that you were having trouble learning	8	9	9	9	0	VIIIZNII SS	e. Practice things in reading that you were having trouble	Ø	Ф	0	Φ	Ф	VFQ70186		
f. Take a test	0	0	0	0	Φ.	VR270392	f. Take a test	<b>®</b>	0	0	0	0	V21270192		
g. Create a map	0	•	0	0	0	\$11270189	g. Create a map	9	0	9	9	0	V31270169		
h. Work on a website or blog that you maintain	0	•	0	0	Φ	VH270190	h. Work on a website or	9	0	0	0	0	VH270190		
<ol> <li>Create a multimedia presentation on your own</li> </ol>	•	•	0	0	Φ	VH2/8091	i. Create a multimedia presentation on your	0	0	0	0	Ф	<b>52:1270191</b>		
<ol> <li>Work collaboratively with a team of students to create a multimedia presentation</li> </ol>	•	•	0	0	Ф	VH2/BIAF	j. Work collaboratively with a team of students to create a multimedia presentation	<b>©</b>	0	0	0	Θ	\$H220187		
(2017 Grade 8)						VH27nENI	presentation						VH270130	NC	N/A
13. Which best describes the  □ I don't know how to  □ I can type with one  □ I can type with all to  □ I can type with a	o type using or two finge or two finge en fingers w	a computer kers, but I have to rs, and I know hen I look at th	yboard.  o search for where most one keyboard.	here the lette f the letter ke			13. Which best describes the  ② I don't know how to  ③ I can type with one o  ③ I can type with one o  ③ I can type with all te  ③ I can type with all te	type using ir two finge ir two finge in fingers w	a computer key rs, but I have to rs, and I know hen I look at th	board. search for w where most o e keyboard.	here the lette f the letter ke				
(2017 Grade 8)															
<ul> <li>Would you rather take a</li> <li>Paper and pencil</li> <li>Computer</li> </ul>	test at scho	ool using paper	and pencil or	using a comp	uter?	VH270132	14. Would you rather take a  Description Paper and pencil Description	test at scho	ool using paper	and pencil or	using a comp	outer?	VH270132	NC	N/A

Previous item						2019 item						D/A/ R/NC+	Rationale	
15. Do you think you would be row.	able to do each	of the followir	ng? Select one ansv	wer choice on	vH270215 each	15. Do you think you would be row.	able to do each	of the followir	ng? Select one ans	wer choice on	vн270215 each	NC	N/A	
	I definitely can't.	I probably can't.	I probably can.	I definitely can.			I definitely can't.	I probably can't.	I probably can.	I definitely can.				
Write sentences and paragraphs using a computer	Ø	(8)	0	0	VH270229	Write sentences and paragraphs using a computer	<b>®</b>	•	0	Φ	VH270229			
b. Edit text using a computer	0	•	0	0	VH270218	b. Edit text using a computer	0	®	0	Φ	VH270218			
c. Use a touchscreen on a computer, tablet, or smartphone	<b>®</b>	•	©	•	VH270230	c. Use a touchscreen on a computer, tablet, or smartphone	<b>(</b>	®	0	Φ	VH270230			
d. Look up the meaning of a word using a computer	<b>Ø</b>	(3)	0	Ф	VH270225	d. Look up the meaning of a word using a computer	<b>®</b>	®	0	•	VH270225			
e. Draw a picture using a computer	•	•	0	Φ	VH270226	e. Draw a picture using a computer	0	®	0	Φ	VH270226			
f. View or download digital media	<b>Ø</b>	•	0	Φ	VH270216	f. View or download digital media	0	®	0	Φ	VH270216			
g. Create a presentation using a computer	•	•	0	Φ	VH270228	g. Create a presentation using a computer	0	®	0	0	VH270228			
h. Create a spreadsheet using a computer	<b>®</b>	•	O	Φ	VH270231	h. Create a spreadsheet using a computer	0	®	0	Φ	VH270231			
i. Install new software or apps	•	•	0	Φ	VH270219	i. Install new software or apps	0	®	0	0	VH270219			
<ul> <li>Participate in online discussions, forums, social networking sites, or virtual communities</li> </ul>	0	•	Q	Φ	VH270220	<li>j. Participate in online discussions, forums, social networking sites, or virtual</li>	<b>®</b>	®	0	Φ	VH270220			
k. Maintain a website or blog	<b>®</b>	(3)	0	•	VH270221	communities								
Search for information on the Internet	<b>®</b>	<b>®</b>	0	•	VH270222	k. Maintain a website or blog  1. Search for information on	•	®	0	0	VH270221			
m. Run simulations using a computer	<b>3</b>	•	0	Φ	VH270223	the Internet m. Run simulations using a	<b>®</b>	₿	0	•	VH270222			
n. Create a graph or chart using a computer	<b>®</b>	®	0	Φ	VH270224	computer  n. Create a graph or chart	<b>(A)</b>	<b>®</b>	0	Φ	VH270223			
o. Write a computer program or app	<b>®</b>	•	0	•	VH270227	using a computer  o. Write a computer program	۵	⊕	0	Φ	VH270224			
p. Troubleshoot a problem with a computer	0	•	0	Φ	VH270232	or app	<b>Ø</b>	(8)	0	Φ	VH270227			
<li>q. Figure out how to use new functions of a digital device</li>	<b>®</b>		0		VH270217	p. Troubleshoot a problem with a computer	(3)	•	0	•	VH270232			
that I am not yet familiar with	(A)	(8)	9	•	VIIZ/021/	q. Figure out how to use new functions of a digital device that I am not yet familiar with	<b>®</b>	<b>(B)</b>	0	•	VH270217			

On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices are you?  © 0  1  © 2  © 3  © 4	16. On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices are you?	NC	N/A
© 1 © 2 © 3 © 4	© 1 © 2 © 3		
© 2 © 3 © 4	© 2 © 3		
① 3 ② 4	© 3		
© 4			
© 5	Φ 5		
© 6	© 6		
<b>®</b> 7	® 7		
Φ 8			
Φ 9	© 8		
© 10	Φ 9		
	<b>◎</b> 10		
017 Grade 8)			
Please read the descriptions of the following four eighth-grade students. After you read each description, you will be asked to answer a question about each student based on the information provided.	17. Please read the descriptions of the following four eighth-grade students. After you read each description, you will be asked to answer a question about each student based on the information provided.	NC	N/A
<b>Linda</b> often uses apps to talk to her friends or to play games. She does some of her homework on her laptop and knows how to write and create tables using a computer. Linda cannot type with 10 fingers but is pretty fast with two fingers and mostly finds the right keys.	Linda often uses apps to talk to her friends or to play games. She does some of her homework on her laptop and knows how to write and create tables using a computer. Linda cannot type with 10 fingers but is pretty fast with two fingers and mostly finds the right keys.		
On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think <u>Linda</u> is?	On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Linda is?		
<b>◎</b> 0	∞ 0		
① I	<b>1</b>		
© 2	© 2		
© 3	0 3		
© 4			
<b>○</b> 5	© 4		
© 6	Ø 5		
<b>®</b> 7	© 6		
O 8	⊕ 7		
Φ 9	Φ 8		
© 10	Φ 9		
			1
017 Grade 8)			

Previous item	2019 item	D/A R/N	Rationale
18. Tom often uses apps to talk to his friends or to play games. He does most of his homework on a computer and knows how to write and edit papers on a computer and how to create complex tables or charts. He also created a few presentations using a computer. Tom can type pretty accurately using ten fingers when looking at the computer keyboard.  On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Tom is?  © 0  © 1  © 2  © 3  © 4  © 5  © 6  © 7  © 8  © 9  © 10	18. Tom often uses apps to talk to his friends or to play games. He does most of his homework on a computer and knows how to write and edit papers on a computer and how to create complex tables or charts. He also created a few presentations using a computer. Tom can type pretty accurately using ten fingers when looking at the computer keyboard.  On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Tom is?  0  1  2  3  4  5  6  7  8  9  10		N/A
19. Susan often uses apps on a smartphone or tablet and does most of her homework on a laptop. She is good at writing and editing papers on her computer and has experience with creating complex tables and charts. Susan can type fast and accurately with 10 fingers without looking at the computer keyboard. She also knows a couple of programming languages. This school year, she built her first app.  On a scale from 0 to 10. where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Susan is?  0  1  2  3  4  5  6  7  8  9  10	19. Susan often uses apps on a smartphone or tablet and does most of her homework on a laptop. She is good at writing and editing papers on her computer and has experience with creating complex tables and charts. Susan can type fast and accurately with 10 fingers without looking at the computer keyboard. She also knows a couple of programming languages. This school year, she built her first app.  On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Susan is?  O  1  2  3  4  5  6  7  8  9  10	NC NC	N/A

Previous item				2019 item				D/A/ R/NC+	Rationale				
20. Kevin sometimes plays games on his smartphone or a computer, but he usually does not use a computer for his homework. He used a computer a couple of times to write a paper but never used a computer to create tables, charts, or presentations. Kevin can type with one or two fingers but has to search to find the correct keys on the computer keyboard.					VH231219	20. Kevin sometimes plays games on his smartphone or a computer, but he usually does not use a computer for his homework. He used a computer a couple of times to write a paper but never used a computer to create tables, charts, or presentations. Kevin can type with one or two fingers but has to search to find the correct keys on the computer keyboard.					VH270239	NC	N/A
On a scale from 0 to 10, w familiar with using compu						On a scale from 0 to 10, wh familiar with using compu	nere 0 is not at al						
<b>®</b> 0						<b>∞</b> 0		,					
<b>®</b> 1													
© 2						<b>®</b> 1							
0 3						© 2							
						© 3							
<b>(3)</b> 4						<b>©</b> 4							
O 5						© 5							
© 6						© 6							
® 7						- 0							
@ /						Ø 7							
Φ 8						<b>∞</b> 7							
						Φ 8							
Ф 8 Ф 9 © 10													
⊕ 8 ⊕ 9 ⊛ 10 2017 Grade 8)	h each of the follower heard of it	owing? Select on Heard of it once or twice	Heard of it	Know it well, understand	Vetzioliwa	© 8 © 9	Never heard of	Heard of it	Heard of it	Know it well, understand	VIETRO 04	NC	N/A
<ul> <li>⊕ 8</li> <li>⊕ 9</li> <li>⑤ 10</li> </ul> 2017 Grade 8) 21. How familiar are you with	Never heard of	Heard of it once or twice	Heard of it often	Know it well, understand the concept		◆ 8  ◆ 9  ◆ 10  21. How familiar are you with	Never heard of	Heard of it once or twice	Heard of it often	Know it well, understand the concept		NC	N/A
<ul> <li>⊕ 8</li> <li>⊕ 9</li> <li>⊕ 10</li> </ul> 2017 Grade 8) 21. How familiar are you wit a. E-reaster	Never heard of	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VHZ TOPES	<ul> <li></li></ul>	Never heard of	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH270195	NC	N/A
⊕ 8 ⊕ 9 ⊕ 10  2017 Grade 8)  21. How familiar are you wit	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH270195	<ul> <li></li></ul>	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH270195 VH270196	NC	N/A
⊕ 8 ⊕ 9 ⊕ 10  2017 Grade 8) 21. How familiar are you wit  E-reader  Wi-Fi Firewall	Never heard of	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH270195 VH270196	<ul> <li>⊕ 8</li> <li>⊕ 9</li> <li>⊕ 10</li> <li>21. How familiar are you with</li> <li>a. E-reader</li> <li>b. Wi-Fi</li> <li>c. Firewall</li> </ul>	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH270195	NC	N/A
<ul> <li>⊕ 8</li> <li>⊕ 9</li> <li>⊕ 10</li> </ul> 2017 Grade 8) <ul> <li>21. How familiar are you with</li> <li>i. E-reader</li> <li>j. Wi-Fi</li> <li>j. Firewall</li> </ul>	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH270195 VH270196 VH270197	<ul> <li>⊕ 8</li> <li>⊕ 9</li> <li>⊕ 10</li> <li>21. How familiar are you with</li> <li>a. E-reader</li> <li>b. Wi-Fi</li> <li>c. Firewall</li> <li>d. Hyperlink</li> </ul>	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH270195 VH270196 VH270197	NC	N/A
<ul> <li>⊕ 8</li> <li>⊕ 9</li> <li>⊕ 10</li> <li>2017 Grade 8)</li> <li>21. How familiar are you wit</li> <li>a. E-reader</li> <li>b. Wi-Fi</li> <li>c. Firewall</li> <li>d. Hyperlink</li> <li>e. Neuro-digital computing</li> <li>f. Instant messaging</li> </ul>	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VHI276195 VHI276196 VHI276197 VHI276198 VHI276199 VHI276199	D 8 D 9 D 10  21. How familiar are you with  a. E-reader b. Wi-Fi c. Firewall d. Hyperlink e. Neuro-digital computing	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH270195 VH270196 VH270197 VH270198	NC	N/A
⊕ 8 ⊕ 9 ⊕ 10  2017 Grade 8)  21. How familiar are you wit  3. E-reader b. Wi-Fi c. Firewall d. Hyperlink e. Neuro-digital computing f. Instant messaging g. CPU	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VHI270195 VHI270196 VHI270197 VHI270198 VHI270199 VHI270091	<ul> <li>⊕ 8</li> <li>⊕ 9</li> <li>⊕ 10</li> <li>21. How familiar are you with</li> <li>a. E-reader</li> <li>b. Wi-Fi</li> <li>c. Firewall</li> <li>d. Hyperlink</li> </ul>	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH270195 YH270196 YH270197 YH270198 YH270198	NC	N/A
⊕ 8 ⊕ 9 ⊕ 10  2017 Grade 8)  21. How familiar are you wit  21. How familiar are you wit  3. E-reaster  3. Wi-Fi 2. Firewall 4. Hyperlink 2. Neuro-digital computing 6. Instant messaging 8. CPU 4. Cut and paste	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	V8276195 V99276196 V99276197 V89276199 V99276199 V99276291 V99276291 V99276291	<ul> <li>⊕ 8</li> <li>⊕ 9</li> <li>⊕ 10</li> <li>21. How familiar are you with</li> <li>a. E-reader</li> <li>b. Wi-Fi</li> <li>c. Firewall</li> <li>d. Hyperlink</li> <li>e. Neuro-digital computing</li> <li>f. Instant messaging</li> </ul>	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH270195 VH270196 VH270197 VH270199 VH270100	NC	N/A
⊕ 8 ⊕ 9 ⊕ 10  2017 Grade 8)  21. How familiar are you wit  21. How familiar are you wit  22. Firewall 23. Hyperlink 24. Neuro-digital computing 25. CPU 26. CPU 26. Cyramidal browser	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH870185 VYH870197 VH870197 VH870199 VH870199 VH870199 VH870201 VH870201 VH870201 VH870201	<ul> <li>⊕ 8</li> <li>⊕ 9</li> <li>⊕ 10</li> <li>21. How familiar are you with</li> <li>a. E-reader</li> <li>b. Wi-Fi</li> <li>c. Firewall</li> <li>d. Hyperlink</li> <li>e. Neuro-digital computing</li> <li>f. Instant messaging</li> <li>g. CPU</li> </ul>	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH270195 VH270196 VH270197 VH270199 VH270100 VH270100 VH270100	NC	N/A
⊕ 8 ⊕ 9 ⊕ 10  2017 Grade 8)  21. How familiar are you wit  21. How familiar are you wit  22. Firewall 23. Hyperlink 24. Neuro-digital computing 25. Instant messaging 26. CPU 26. Cut and paste 26. Pyramidal browser 26. Spreadsheet	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VIEROLIOS VVIEROLIOS VVERTOLIOS VIEROLIOS VIEROLIOS VIEROLIOS VIEROLIOS VIEROLIOS VIEROLIOS	<ul> <li>⊕ 8</li> <li>⊕ 9</li> <li>⊕ 10</li> <li>21. How familiar are you with</li> <li>a. E-reader</li> <li>b. Wi-Fi</li> <li>c. Firewall</li> <li>d. Hyperlink</li> <li>e. Neuro-digital computing</li> <li>f. Instant messaging</li> <li>g. CPU</li> <li>h. Cut and paste</li> </ul>	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VFI270195 VFI270196 VFI270197 VFI270199 VFI270199 VFIZ70500 VFIZ70500 VFIZ70500 VFIZ70500	NC	N/A
⊕ 8 ⊕ 9 ⊕ 10  2017 Grade 8)  21. How familiar are you wit  21. How familiar are you wit  22. Firewall 23. Hyperlink 24. Neuro-digital computing 25. Instant messaging 26. Instant messaging 27. CPU 28. CPU 28. CPU 29. CPU 2	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH270149 VH2701476 VH270147 VH270149 VH270164 VH270001 VH270001 VH270001 VH270001 VH270001 VH270001 VH270001 VH270001 VH270001 VH270001 VH270001 VH270001	D 9 D 10  21. How familiar are you with  a. E-reader b. Wi-Fi c. Firewall d. Hyperlink e. Neuro-digital computing f. Instant messaging g. CPU h. Cut and paste i. Pyramidal browser	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	998.70193 991270199 991270199 991270199 991270199 991270100 991270303 991270303	NC	N/A
⊕ 8 ⊕ 9 ⊕ 10  2017 Grade 8)  21. How familiar are you wit  21. How familiar are you wit  22. Firewall 23. Hyperlink 24. Hyperlink 25. Neuro-digital computing 26. Instant messaging 26. CPU 27. Lyramidal browser 28. Spreadsheet 29. Limbic wire 29. Spinalbyte	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VILETOLIO	D 9 D 10  21. How familiar are you with  a. E-reader b. Wi-Fi c. Firewall d. Hyperlink e. Neuro-digital computing f. Instant messaging g. CPU h. Cut and paste i. Pyramidal browser j. Spreadsheet	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	99:270195 99:270196 99:270197 99:270199 99:270199 99:270201 99:270203 99:270204 99:270204	NC	N/A
⊕ 8 ⊕ 9 ⊕ 10  2017 Grade 8)  21. How familiar are you wit  21. How familiar are you wit  22. How familiar are you wit  23. E-reader  24. Wi-Fi 25. Firewall 26. Hyperlink 26. Neuro-digital computing 27. Instant messaging 28. CPU 29. Cut and paste 29. CPU 29. Cut and paste 29. Spreadsheet 29. Limbic wire 29. Spinalbyte 29. Cloud computing	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH270149 VH2701476 VH270147 VH270149 VH270164 VH270001 VH270001 VH270001 VH270001 VH270001 VH270001 VH270001 VH270001 VH270001 VH270001 VH270001 VH270001	D 9 D 10  21. How familiar are you with  a. E-reader b. Wi-Fi c. Firewall d. Hyperlink e. Neuro-digital computing f. Instant messaging g. CPU h. Cut and paste i. Pyramidal browser j. Spreadsheet k. Limbic wire	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	99:270195 99:270199 99:270197 99:270199 99:270199 99:270201 99:270203 99:270204 99:270204 99:270204	NC	N/A
⊕ 8 ⊕ 9 ⊕ 10  2017 Grade 8)  21. How familiar are you wit  a. E-reader b. Wi-Fi c. Firewall d. Hyperlink e. Neuro-digital computing f. Instant messaging g. CPU b. Cytamidal browser i. Spreadsheet k. Limbic wire	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	VH870105 VY870107 VY870109 VY870109 VY870109 VY870001 VY870001 VY870001 VY870001 VY870001 VY870001 VY870001	D 9 D 10  21. How familiar are you with  a. E-reader b. Wi-Fi c. Firewall d. Hyperlink e. Neuro-digital computing f. Instant messaging g. CPU h. Cut and paste i. Pyramidal browser j. Spreadsheet k. Limbic wire l. Spinalbyte	Never heard of it  D D D D D D D D D D D D D D D D D D	Heard of it once or twice	Heard of it often	Know it well, understand the concept	994270199 991270199 991270199 991270199 991270199 991270200 991270200 991270200 991270200 991270200 991270200 991270200 991270200	NC	N/A

## **Appendix K-1az: Operational Grade 8 CAFS**

1. At home, do you have any of the following? Select one answer choice on each row.

	Yes	No	
a. A <b>laptop or desktop computer</b> that is only for your use	<b>(A)</b>	®	VH270141
b. A <b>laptop or desktop computer</b> that is shared between you and others	<b>(a)</b>	®	VH270142
c. A <b>tablet</b> that is only for your use	(A)	®	VH270139
d. A <b>tablet</b> that is shared between you and others	<b>(A)</b>	®	VH270140
e. <b>Wi-Fi</b> or some other <b>Internet connection</b> you can use	<b>(A)</b>	®	VH270143
f. A <b>smartphone</b> that is only for your use	(A)	®	VH270144

VH270145

#### 2. When did you first use a laptop or desktop computer?

- I have never used one.
- ® Before I was in kindergarten
- When I was in kindergarten
- When I was in first, second, or third grade
- When I was in fourth or fifth grade
- (D) When I was in sixth, seventh, or eighth grade

VH270090

### **3.** When did you first use a **tablet**?

- Never until this assessment
- Before I was in kindergarten
- When I was in kindergarten
- When I was in first, second, or third grade
- When I was in fourth or fifth grade
- When I was in sixth, seventh, or eighth grade

VI	270	114	6

		VH270146
4.	When did you first use a <b>smartphone</b> ?	
	® Before I was in kindergarten	
	© When I was in kindergarten	
	When I was in first, second, or third grade	
	© When I was in fourth or fifth grade	
	When I was in sixth, seventh, or eighth grade	
		VH270147
5	On a weekday, about how many hours do you use a laptop or desktop computer for	V11270147
٠.	doing schoolwork, including homework?	
	None	
	® Less than an hour	
	© 1 to 2 hours	
	© 2 to 3 hours	
	© 3 to 4 hours	
	© More than 4 hours	
		VH270148
6.	On a weekday, about how many hours do you use a tablet for doing schoolwork, including homework?	
	None	
	Less than an hour	
	© 1 to 2 hours	
	© 2 to 3 hours	
	© 3 to 4 hours	
	© More than 4 hours	

7. Were you taught any of the following at school? Select one answer choice on each row.

	Yes	No	
a. How to type on a computer keyboard using the correct fingers	<b>®</b>	®	VH270150
b. How to write sentences and paragraphs using a computer	<b>(</b>	®	VH270151
c. How to edit text using a computer	<b>(A)</b>	®	VH270164
d. How to search for information on the Internet	<b>®</b>	<b>®</b>	VH270152
e. How to use a tablet	(A)	®	VH270156
f. How to look up the meaning of a word using a computer	<b>®</b>	<b>®</b>	VH270157
g. How to create a spreadsheet using a computer	<b>®</b>	®	VH270154
h. How to create a presentation using a computer	<b>(</b>	®	VH270155
i. How to run simulations using a computer	<b>(A)</b>	®	VH270159
j. How to write a computer program or app	(A)	®	VH270160
k. How to create a graph or chart using a computer	<b>®</b>	®	VH270161
l. How to troubleshoot problems with a computer	<b>®</b>	₿	VH270158

**8.** Which of the following are true about the ways in which you and your teachers use computers **at school**? Select **one** answer choice on each row.

	Yes	No	
a. In most of my classes there are <b>laptop or desktop computers</b> that I can use for schoolwork.	(9)	©	VH270166
b. In most of my classes there are <b>tablets</b> that I can use for schoolwork.	(4)	®	VH270167
c. There is <b>Wi-Fi</b> or some other <b>Internet connection</b> that I can use for schoolwork.	(4)	®	VH270170
d. Most of my teachers use computers when teaching my classes.	(4)	®	VH270169
e. Most of my teachers require us to use computers in the classroom.	(A)	®	VH270168

V	H2	70	11	6

- 9. Has your school assigned you a laptop or desktop computer that only you can use?
  - No
  - ® Yes, but I cannot take it home with me.

VH270117

- 10. Has your school assigned you a tablet that only you can use?
  - No
  - ® Yes, but I cannot take it home with me.
  - O Yes, and I can take it home with me.

**11. This school year**, how often have you used a **laptop or desktop computer** to do each of the following? Select **one** answer choice on each row.

		Never	A few times	Once every few weeks	About once a week	More than once a week	
a.	Write a short paper (less than a page) for school	<b>(A)</b>	®	0	0	©	VH270172
b.	Write a paper for school that was longer than a page	<b>(</b> A)	®	0	0	©	VH270173
c.	Search the Internet for a school project	(A)	B	0	0	Ē	VH270174
d.	Practice things in mathematics that you were having trouble learning	(4)	®	0	0	©	VH270181
e.	Practice things in reading that you were having trouble learning	(4)	®	0	0	©	VH270177
f.	Take a test	(A)	®	0	0	(E)	VH270175
g.	Create a map	(A)	®	0	0	Œ	VH270178
h.	Work on a website or blog that you maintain	(A)	B	0	0	Ē	VH270179
i.	Create a multimedia presentation on your own	(4)	®	0	0	©	VH270180
j.	Work collaboratively with a team of students to create a multimedia presentation	0	(B)	0	<b>©</b>	©.	VH270176

**12. This school year**, how often have you used a **tablet** to do each of the following? Select **one** answer choice on each row.

		Never	A few times	Once every few weeks	About once a week	More than once a week	
a.	Write a short paper (less than a page) for school	<b>(</b> A)	®	0	0	Œ	VH270183
b.	Write a paper for school that was longer than a page	<b>(A)</b>	®	0	0	Œ	VH270188
c.	Search the Internet for a school project	(A)	B	0	0	Œ	VH270184
d.	Practice things in mathematics that you were having trouble learning	<b>®</b>	®	0	Φ	Œ	VH270185
e.	Practice things in reading that you were having trouble learning	<b>®</b>	®	0	0	©.	VH270186
f.	Take a test	(A)	®	0	0	Œ	VH270192
g.	Create a map	A	®	0	0	(E)	VH270189
h.	Work on a website or blog that you maintain	A	®	0	0	Œ	VH270190
i.	Create a multimedia presentation on your own	Ø	®	0	0	Œ	VH270191
j.	Work collaboratively with a team of students to create a multimedia presentation	<b>(</b> A)	®	0	0	©.	VH270187

VH270130

- 13. Which best describes the way you type on a computer keyboard?
  - I don't know how to type using a computer keyboard.
  - ® I can type with one or two fingers, but I have to search for where the letter keys are.

  - ① I can type with all ten fingers when I look at the keyboard.
  - © I can type with all ten fingers without looking at the keyboard.

- 14. Would you rather take a test at school using paper and pencil or using a computer?
  - Paper and pencil
  - ® Computer

**15.** Do you think you would be able to do each of the following? Select **one** answer choice on each row.

		I definitely can't.	I probably can't.	I probably can.	I definitely can.	
a.	Write sentences and paragraphs using a computer	<b>(A)</b>	®	0	0	VH270229
b.	Edit text using a computer	<b>(A)</b>	®	0	0	VH270218
c.	Use a touchscreen on a computer, tablet, or smartphone	<b>(A)</b>	®	©	0	VH270230
d.	Look up the meaning of a word using a computer	(A)	®	©	0	VH270225
e.	Draw a picture using a computer	(A)	®	0	0	VH270226
f.	View or download digital media	A	®	0	0	VH270216
g.	Create a presentation using a computer	(A)	®	0	0	VH270228
h.	Create a spreadsheet using a computer	A	®	0	0	VH270231
i.	Install new software or apps	(A)	®	0	0	VH270219
j.	Participate in online discussions, forums, social networking sites, or virtual communities	(9)	®	0	0	VH270220
k.	Maintain a website or blog	<b>(A)</b>	®	0	0	VH270221
1.	Search for information on the Internet	(A)	®	0	0	VH270222
m	Run simulations using a computer	(A)	®	0	0	VH270223
n.	Create a graph or chart using a computer	(A)	®	0	0	VH270224
0.	Write a computer program or app	<b>(A)</b>	®	0	0	VH270227
p.	Troubleshoot a problem with a computer	(A)	®	0	0	VH270232
q.	Figure out how to use new functions of a digital device that I am not yet familiar with	<b>③</b>	(8)	0	<b>©</b>	VH270217

	familiar with using computers and other digital devices are you?
16	On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, <b>how</b>

- **(A)** 0
- **®** 1
- © 2
- 3
- **1**
- ① 5
- © 6
- ⊕ 7
- **O** 8
- **D** 9
- © 10

17. Please read the descriptions of the following four eighth-grade students. After you read each description, you will be asked to answer a question about each student based on the information provided.

**Linda** often uses apps to talk to her friends or to play games. She does some of her homework on her laptop and knows how to write and create tables using a computer. Linda cannot type with 10 fingers but is pretty fast with two fingers and mostly finds the right keys.

On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Linda is?

- **®** 1
- $\odot$  2
- ① 3
- 4
- ① 5
- © 6
- T 7
- **O** 8
- **D** 9
- ® 10

**18. Tom** often uses apps to talk to his friends or to play games. He does most of his homework on a computer and knows how to write and edit papers on a computer and how to create complex tables or charts. He also created a few presentations using a computer. Tom can type pretty accurately using ten fingers when looking at the computer keyboard.

On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Tom is?

- **(A)** 0
- **®** 1
- $\odot$  2
- ① 3
- © 4
- ① 5
- © 6
- **®** 7
- **O** 8
- **D** 9
- ® 10

19. Susan often uses apps on a smartphone or tablet and does most of her homework on a laptop. She is good at writing and editing papers on her computer and has experience with creating complex tables and charts. Susan can type fast and accurately with 10 fingers without looking at the computer keyboard. She also knows a couple of programming languages. This school year, she built her first app.

On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Susan is?

- **(A)** 0
- ® 1
- © 2
- **3**
- © 4
- ① 5
- © 6
- ① 7
- **O** 8
- **O** 9
- © 10

**20. Kevin** sometimes plays games on his smartphone or a computer, but he usually does not use a computer for his homework. He used a computer a couple of times to write a paper but never used a computer to create tables, charts, or presentations. Kevin can type with one or two fingers but has to search to find the correct keys on the computer keyboard.

On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Kevin is?

- **(A)** 0
- **®** 1
- $\bigcirc$  2
- ① 3
- © 4
- ① 5
- © 6
- ① 7
- **O** 8
- **D** 9
- © 10

**21.** How familiar are you with each of the following? Select **one** answer choice on each row.

	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	
a. E-reader	A	®	0	0	VH270195
b. Wi-Fi	(A)	®	0	0	VH270196
c. Firewall	(A)	®	0	0	VH270197
d. Hyperlink	A	®	0	0	VH270198
e. Neuro-digital computing	(A)	®	0	0	VH270199
f. Instant messaging	A	®	0	0	VH270200
g. CPU	(A)	®	0	0	VH270201
h. Cut and paste	(A)	®	0	0	VH270203
i. Pyramidal browser	(A)	®	0	0	VH270204
j. Spreadsheet	A	®	0	0	VH270206
k. Limbic wire	(A)	®	0	0	VH270207
1. Spinalbyte	(A)	B	0	0	VH270208
m. Cloud computing	(A)	®	0	0	VH270209
n. Server	(A)	®	0	0	VH270210
o. Compiler	(A)	B	0	0	VH270212
p. Callosum board	A	®	0	0	VH270214

# Appendix K-1ba: Summary of Changes Operational Grade 12 CAFS

1. How much do you know about using computers and other digital devices?  © I hardly know anything at all.  © I know something.  © I know quite a bit.  © I know a lot.  (2015 Grade 12)  2. At home, do you have any of the following? Fill in one oval on each line.  Yes No  a. A laptop or desktop computer that is only for your use  b. A laptop or desktop computer that is only for your use  b. A laptop or desktop computer that is only for your use  c. A tablet that is shared between you and others  c. A tablet that is shared between you and others  d. A tablet that is shared between you and others  e. Will or some other Internet connection  conditions and others  and others  dro  becomputer in the shared between you and others  vintsess  d. A tablet that is shared between you and others  e. Will or some other Internet connection  conditions and other shared between you use  d. A tablet that is only for your use  d. A tablet that is only for your use  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Internet connection  conditions and others  e. Will or some other Interne	Previous item			2019 item				D/A/ R/NC+	Rationale	
2. At home, do you have any of the following? Fill in one oval on each line.  Yes No  a. A laptop or desktop computer that is only for your use b. A laptop or desktop computer that is shared between you and others  c. A tablet that is only for your use  d. A tablet that is shared between you and others  d. A tablet that is shared between you and others  viii55281  d. A tablet that is shared between you and others  viii55281  d. A tablet that is only for your use  f. A smartphone that is only for your use  f. A smartphone that is only for your use  f. A smartphone that is only for your use  viii55281  NC  The  direct  a. A laptop or desktop computer that is only for your use  b. A laptop or desktop computer that is shared between you and others  viii55281  d. A tablet that is shared between you and others  viii55281  over the following? Select one answer choice on each row.  NC  The  direct  a. A laptop or desktop computer that is only for your use  b. A laptop or desktop computer that is shared between you and others  viii55281  d. A tablet that is shared between you and others  viii55281  d. A tablet that is shared between you and others  viii55281  d. A tablet that is shared between you and others  viii55281  d. A tablet that is shared between you and others  viii55281  d. A tablet that is shared between you and others  viii55281  d. A smartphone that is only for your use  f. A smartphone that is only for your use  viii55281	How much do you know about using computers and other digital devices?  I hardly know anything at all.  I know something.  I know quite a bit.  I know a lot.				N/A				D	This item wa dropped because it was not correlated with achievement and was not conceptually central to the
a. A laptop or desktop computer that is only for your use  b. A laptop or desktop computer that is shared between you and others  c. A tablet that is only for your use  d. A tablet that is shared between you and others  Tes No  a. A laptop or desktop computer that is only for your use b. A laptop or desktop computer that is shared between you and others  c. A tablet that is only for your use d. A tablet that is shared between you and others  c. A tablet that is shared between you and others  d. A tablet that is shared between you and others  e. Wi-Fi or some other Internet connection you can use f. A smartphone that is only for your use  f. A smartphone that is only for your use  over the state of										study.
b. A laptop or desktop computer that is shared between you and others  c. A tablet that is only for your use  d. A tablet that is shared between you and others  c. A tablet that is shared between you and others  d. A tablet that is shared between you and others  c. Wilson  d. A tablet that is shared between you and others  e. Wilson  for your use  b. A laptop or desktop computer that is shared between you and others  c. A tablet that is only for your use  d. A tablet that is shared between you and others  e. Wilson  winson  for your use  b. A laptop or desktop computer that is shared between you and others  c. A tablet that is only for your use  d. A tablet that is shared between you and others  e. Wilson  winson  for your use  c. A tablet that is only for your use  c. Wilson  you can use  f. A smartphone that is only for your use  d. A smartphone that is only for your use  over the for your use  with the first properties and others  with the first properties and othe	At home, do you have any of the following? Fill	l in <b>one</b> ova	ol on each line.	VH155275	1. At home, do you have any of the following? Se	elect one answer cho	ice on each row.	VH270(34	NC	study. The in-line
b. A laptop or desktop computer that is shared between you and others  c. A tablet that is only for your use  d. A tablet that is shared between you and others  winssas  b. A laptop or desktop computer that is shared between you and others  c. A tablet that is only for your use  d. A tablet that is shared between you and others  c. A tablet that is shared between you and others  d. A tablet that is shared between you and others  e. Wi-Fi or some other Internet connection you can use  f. A smartphone that is only for your use  d. A smartphone that is only for your use  d. A smartphone that is only for your use  d. A smartphone that is only for your use  d. A smartphone that is only for your use  d. A smartphone that is only for your use  d. A smartphone that is only for your use  d. A smartphone that is only for your use  d. A smartphone that is only for your use	At home, do you have any of the following? Fill			VH155275		og control of the con		VH270136	NC	study.  The in-line direction was
c. A tablet that is only for your use  c. A tablet that is only for your use  d. A tablet that is shared between you and others  d. A tablet that is shared between you and others  e. Wi-Fi or some other Internet connection you can use  f. A smartphone that is only for your use  over the property of th	a. A laptop or desktop computer that is	Yes	No		a. A laptop or desktop computer that is only for your use	Yes	No		NC	study. The in-line direction was
c. A tablet that is only for your use	a. A laptop or desktop computer that is only for your use	Yes	No	VH155283	a. A laptop or desktop computer that is only for your use b. A laptop or desktop computer that is	Yes   Ø	No	V9E170141	NC	study. The in-line direction was adapted from PBA to DBA:
d. A tablet that is shared between you and others  solve the shared between you and others  solve the shared between you be shared between you and use you can use  f. A smartphone that is only for your use by you can use add add add add add add add add add ad	a. A laptop or desktop computer that is only for your use b. A laptop or desktop computer that is	Yes	No	VH155283	a. A laptop or desktop computer that is only for your use b. A laptop or desktop computer that is shared between you and others c. A tablet that is only for your use	Yes 🕹	No	V962701.41 V962701.42	NC	study.  The in-line direction was adapted from PBA to DBA: "Fill in one
and others  f. A smartphone that is only for your use	a. A laptop or desktop computer that is only for your use b. A laptop or desktop computer that is shared between you and others	Yes	No (D)	VIHI55283 VIII55284	a. A laptop or desktop computer that is only for your use b. A laptop or desktop computer that is shared between you and others c. A tablet that is only for your use d. A tablet that is shared between you and	Yes	No  D  D	V96270141 V16270142 V96270139	NC	study.  The in-line direction was adapted from PBA to DBA: "Fill in one oval on each
<i>11</i> •	a. A laptop or desktop computer that is only for your use b. A laptop or desktop computer that is shared between you and others c. A tablet that is only for your use d. A tablet that is shared between you	Yes	No  D  D	VH155283 VH155284 VH155280	a. A laptop or desktop computer that is only for your use b. A laptop or desktop computer that is shared between you and others c. A tablet that is only for your use d. A tablet that is shared between you and others e. Wi-Fi or some other Internet connection	Yes  ©  ©  ©	No	VH270141 VH270142 VH270149 VH270140	NC	study.  The in-line direction wa adapted from PBA to DBA: "Fill in one oval on each line." was
connection you can use	a. A laptop or desktop computer that is only for your use b. A laptop or desktop computer that is shared between you and others c. A tablet that is only for your use d. A tablet that is shared between you	Yes	No  D  D	VH155283 VH155284 VH155280	a. A laptop or desktop computer that is only for your use b. A laptop or desktop computer that is shared between you and others c. A tablet that is only for your use d. A tablet that is shared between you and others e. Wi-Fi or some other Internet connection you can use	Yes	No	V10270141 V10270142 V10270140 V10270144	NC	study.  The in-line direction wa adapted fror PBA to DBA: "Fill in one oval on each
f. A smartphone that is only for your the will see that is only for your the will see the will s	a. A laptop or desktop computer that is only for your use b. A laptop or desktop computer that is shared between you and others c. A tablet that is only for your use d. A tablet that is shared between you and others e. Wi-Fi or some other Internet	Yes	No  (b)  (c)  (d)	VH155283 VH155284 VH155280	a. A laptop or desktop computer that is only for your use b. A laptop or desktop computer that is shared between you and others c. A tablet that is only for your use d. A tablet that is shared between you and others e. Wi-Fi or some other Internet connection you can use	Yes	No	V10270141 V10270142 V10270140 V10270144	NC	study.  The in-line direction wa adapted from PBA to DBA: "Fill in one oval on each line." was

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item	2019 item		D/A/ R/NC+	Rationale
3. When did you first use a laptop or desktop computer?  ① I have never used one.  ① Before I was in kindergarten  ② When I was in first, second, or third grade  ① When I was in fourth or fifth grade  ① When I was in sixth, seventh, or eighth grade  ② When I was in high school	2. When did you first use a laptop or desktop computer?  ② I have never used one.  ③ Before I was in kindergarten  ③ When I was in kindergarten  ④ When I was in first, second, or third grade  ④ When I was in fourth or fifth grade  ④ When I was in sixth, seventh, or eighth grade  ④ When I was in high school	VIEREM	NC	N/A
(2015 Grade 12)  4. When did you first use a tablet?  ② I have never used one.  ③ Before I was in kindergarten  ② When I was in kindergarten  ③ When I was in first, second, or third grade  ④ When I was in fourth or fifth grade  ⑤ When I was in sixth, seventh, or eighth grade  ③ When I was in high school  (2015 Grade 12)	3. When did you first use a tablet?  Never until this assessment  Before I was in kindergarten  When I was in kindergarten  When I was in first, second, or third grade  When I was in fourth or fifth grade  When I was in sixth, seventh, or eighth grade  When I was in high school	VACINMEY	R	For DBA response option "A" is adapted to "Never until this assessment" to account fo the fact that students are taking the eNAEP assessment

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item	2019 item		D/A/ R/NC+	Rationale
5. When did you first use a smartphone?  ① I have never used one.  ① Before I was in kindergarten  ① When I was in kindergarten  ① When I was in first, second, or third grade  ① When I was in fourth or fifth grade  ① When I was in sixth, seventh, or eighth grade  ② When I was in high school	4. When did you first use a smartphone?  ① I have never used one.  ① Before I was in kindergarten  ② When I was in kindergarten  ② When I was in first, second, or third grade  ① When I was in fourth or fifth grade  ② When I was in sixth, seventh, or eighth grade  ③ When I was in high school	VH270235	NC	N/A
(2015 Grade 12)  6. On a weekday, about how many hours do you use a laptop or desktop computer for doing schoolwork, including homework?  (2015 None  1 to 2 hours  2 to 3 hours  3 to 4 hours  More than 4 hours  (2015 Grade 12)	5. On a weekday, about how many hours do you use a laptop or desktop computer for doing schoolwork, including homework?  None Less than an hour 1 to 2 hours 2 to 3 hours 3 to 4 hours More than 4 hours	VHENNAT	NC	N/A

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

6. On a weekday, about how many hours do you use a tablet for doing schoolwork,	NC	
including homework?  None		N/A
<ul> <li>D Less than an hour</li> <li>1 to 2 hours</li> <li>2 to 3 hours</li> <li>3 to 4 hours</li> <li>More than 4 hours</li> </ul>		
	<ul> <li>Less than an hour</li> <li>1 to 2 hours</li> <li>2 to 3 hours</li> <li>3 to 4 hours</li> </ul>	<ul> <li>□ Less than an hour</li> <li>□ 1 to 2 hours</li> <li>□ 2 to 3 hours</li> <li>□ 3 to 4 hours</li> </ul>

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previo	ous item				2019 item	D/A/ R/NC+	Rationale			
8. Were	you taught any of the following at sch	ool? Fill in on	e oval on each line.	VH155373	7. Were you taught any of the following at school	l? Select one answer	choice on each row.	VII270149	R	Previous sub-
		Yes	No			Yes	No			items "f",
a. H	low to type on a computer eyboard using the correct fingers	<b>(A)</b>	®	VH155375	How to type on a computer keyboard using the correct fingers	0	0	VH270150		"m", "n" were
				VH155376	b. How to write sentences and paragraphs using a computer	•	0	VH270191		dropped.
	low to write sentences and aragraphs using a computer	(A)	<b>®</b>	VIII 1550/0	c. How to edit text using a computer	0	₲	VH270164		
	low to edit text using a computer	(4)	®	VH176918	d. How to search for information on the Internet	0	Φ	V11270152		The in-line
д н	low to search for information on	A	<b>(B)</b>	VH155377	e. How to use a tablet	⊗	•	VH220156		direction was
	ne Internet		9		f. How to look up the meaning of a word using a computer	<b>©</b>	0	VH270187		adapted from
e. H	low to use a tablet	<b>(A)</b>	(18)	VH155378	g. How to create a spreadsheet using a computer	<b>©</b>	(0)	VH270154		PBA to DBA:
	low to draw a picture using a omputer	(4)	<b>®</b>	VH155379	h. How to create a presentation using a computer	<b>©</b>	0	VH270158		"Fill in one
σН	low to look up the meaning of a	<b>(A)</b>	<b>®</b>	VH155380	i. How to run simulations using a computer	<b>®</b>	0	VH270159		oval on each
g. II	ord using a computer	8			j. How to write a computer program or app	<b>®</b>	Ф	VH270160		line." was
	low to create a spreadsheet using a computer	0	<b>®</b>	VH155381	k. How to create a graph or chart using a computer  1. How to troubleshoot problems with a	Φ	00	VH270161		adapted to
i. H	low to create a presentation using computer	0	<b>®</b>	VH155382	computer	Φ	•	V24270168		"Select one answer
	low to run simulations using a computer	<b>(A)</b>	<b>®</b>	VH155384						choice on
	low to write a computer program r app	<b>(A)</b>	<b>(B)</b>	VH155385						each row."
	low to create a graph or chart sing a computer	(A)	(B)	VH155386						
m. H	low to maintain a website or blog	(4)	<b>(B)</b>	VH155387						
n. H	low to install new software or apps	(4)	(18)	VH155388						
	low to troubleshoot problems with computer	(4)	<b>®</b>	VH155383						

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item				2019 item				D/A/ R/NC+	Rationale
9. Which of the following are true about the way computers at school? Fill in one oval on each		you and your tea	vinissi77 chers use	Which of the following are true about the ways school? Select one answer choice on each row.	s in which you and y	our teachers use co	mputers at	NC	The in-line direction was
	Yes	No			Yes	No			adapted from
a. In most of my classes there are laptop or desktop computers that I can use for schoolwork.	(4)	<b>(D)</b>	VHI55479	a. In most of my classes there are laptop or desktop computers that I can use for schoolwork.	©	Φ	YH270166		PBA to DBA:
b. In most of my classes there are tablets that I can use for schoolwork.	0	(1)	VH155482	b. In most of my classes there are tablets that I can use for schoolwork.  c. There is Wi-Fi or some other Internet	Ø	0	VH270167 VH270170		oval on each
c. There is Wi-Fi or some other Internet connection that I can use	8	•	VH182383	d. Most of my teachers use computers when teaching my classes.	•	0	VH270169		line." was adapted to
for schoolwork.  d. Most of my teachers use computers when teaching my classes.	<b>(A)</b>	<b>(D)</b>	VHISS4E4	e. Most of my teachers require us to use computers in the classroom.	⊗	•	VH370168		"Select one answer
e. Most of my teachers require us to use computers in the classroom.	(4)	<b>(b)</b>	VH155485						choice on each row."
2015 Grade 12)							VH220itus		
10. Has your school assigned you a laptop or desktop computer that only you can use?				9. Has your school assigned you a laptop or deskto  O No	op computer that on	y you can use?	702.010	NC	N/A
♠ No				<ul> <li>Yes, but I cannot take it home with me.</li> <li>Yes, and I can take it home with me (laptop)</li> </ul>	only).				
S Yes, but I cannot take it home with me.									
© Yes, and I can take it home with me (laptop only).									
2015 Grade 12)							VH220117		
11. Has your school assigned you a <b>tablet</b> that only you can use?				Has your school assigned you a tablet that only     No	you can use?		унгант	NC	N/A
No				Yes, but I cannot take it home with me.					
				© Yes, and I can take it home with me.					
Yes, but I cannot take it home with me.									

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

revious item							2019 item							D/A/ R/NC+	Rationale
2. This school year, how often have following? Fill in one oval on each		a laptop o	or desktop cor	mputer to	do each	of the	11. This school year, how of following? Select one a			op or desktop c	omputer to d	each of the	VH279171	NC	The in-line
	Never	A few times	Once every few weeks	About once a week	More the once a week			Never	A few times	Once every few weeks	About once a week	More than once a week			adapted fron
a. Write a short paper (less than a page) for school	<b>(A)</b>	•	0	0	0	VH155496	Write a short paper     (less than a page) for     school	<b>®</b>	•	0	0	Φ	VH270372		PBA to DBA: "Fill in one
b. Write a paper for school that was longer than a page	0	0	0	0	Θ	VH155497	b. Write a paper for school that was longer than a page	0	®	0	Θ	Ф	VH270178		oval on each
c. Search the Internet for a	<b>(A)</b>	(1)	0	•	0	VH155498	c. Search the Internet for a school project	<b>®</b>	•	0	0	Φ	VH270174		line." was
d. Practice things in mathematics that you were	0	•	0	0	<b>©</b>	VH176943	d. Practice things in mathematics that you were having trouble learning	Ø	Φ	0	0	0	V#2701A1		adapted to "Select one
having trouble learning  e. Practice things in reading that you were having trouble learning	<b>®</b>	(8)	0	0	<b>(D</b>	VH176945	c. Practice things in reading that you were having trouble learning	0	00	0	0	Θ	V11270177		choice on each row."
learning							f. Take a test	0	0	0	0	Φ	VH270175		each row.
f. Take a test	(1)	(B)	0	0	0	VH176946	g. Create a map	0	0	0	0	Θ	VIII270176		
g. Create a map	<b>(A)</b>	<b>®</b>	0	0	<b>(D)</b>	VH224684	<ul> <li>Work on a website or blog that you maintain</li> </ul>	<b>©</b>	•	0	0	Θ	VH270179		
h. Work on a website or blog that you maintain	0	(1)	0	0	(1)	VH224685	<ol> <li>Create a multimedia presentation on your own</li> </ol>	0	0	0	0	00	VH270160		
i. Create a multimedia presentation on your own	(4)	•	0	Φ	Θ	VH224686	<li>j. Work collaboratively with a team of students to create a</li>	<b>®</b>	(0)	0	Φ	Ф	V16270176-		
<li>i. Work collaboratively with a team of students to create a multimedia presentation</li>	<b>(3)</b>	0	0	0	0	VH224690	multimedia presentation								

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

#### 2019 Operational Grade 12 Computer and Familiarity Study (CAFS) Student Previous item 2019 item D/A/ Rationale R/NC+ NC 12. This school year, how often have you used a tablet to do each of the following? Select one answer The in-line 13. This school year, how often have you used a tablet to do each of the following? Fill in one oval on each line. direction was More than About Once every About once More than A few times adapted from Never A few Once every once a once a few weeks once a week a week week Never few weeks week times Write a short paper PBA to DBA: 0 VH155525 a. Write a short paper (less 0 1 0 0 (less than a page) for O db 0 0 school "Fill in one than a page) for school Write a paper for b. Write a paper for school that 0 1 0 0 1 VH155528 oval on each school that was longer 0 0 0 0 Θ was longer than a page than a page line." was Search the Internet for 0 VH155527 0 1 0 0 0 c. Search the Internet for a A 0 (1) 0 a school project adapted to school project d. Practice things in mathematics that you "Select one 0 0 1 VH176938 d. Practice things in 1 0 3 0 0 0 D were having trouble mathematics that you were learning answer having trouble learning Practice things in reading that you were VIII76925 choice on e. Practice things in reading 0 1 0 0 1 0 0 0 D 0 having trouble that you were having trouble learning. each row." Take a test 0 0 0 0 1 VIII26927 0 Create a map f. Take a test O 0 0 0 (3) 1 0 0 D Work on a website or 0 0 0 0 0 VH224714 0 0 1 g. Create a map 0 0 blog that you maintain Create a multimedia ▼H1224720 h. Work on a website or blog 0 presentation on your 0 0 0 0 0 that you maintain own Work collaboratively VH224722 i. Create a multimedia with a team of presentation on your own 0 0 0 0 0 students to create a multimedia j. Work collaboratively with a ( 1 0 0 0 VH1224725 presentation team of students to create a multimedia presentation (2015 Grade 12) N/A NC 14. Which best describes the way you type 13. Which best describes the way you type on a computer keyboard? on a computer keyboard? D I don't know how to type using a computer keyboard. @ I don't know how to type using a D I can type with one or two fingers, but I have to search for where the letter keys are, computer keyboard. O I can type with one or two fingers, and I know where most of the letter keys are. ® I can type with one or two fingers, D I can type with all ten fingers when I look at the keyboard but I have to search for where the D I can type with all ten fingers without looking at the keyboard. letter keys are. O I can type with one or two fingers, and I know where most of the letter keys are. 1 can type with all ten fingers when I look at the keyboard. © I can type with all ten fingers without looking at the keyboard. (2015 Grade 12)

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

2019 Operation	onal Grade 12 Computer and Familiarity Study (CAFS) Student		
Previous item	2019 item	D/A/ R/NC+	Rationale
15. Compared to other students in your English/language arts class, how fast do you type on a computer keyboard?  ② I am slower than most students.  ③ I type about the same speed as others.  ③ I am faster than most students.  ① I don't know.  (2015 Grade 12)	N/A	D	This item was dropped because it was not correlated with achievement, and was not conceptually central to the study.
16. Would you rather take a test at school using paper and pencil or using a computer?  ② Paper and pencil ③ Computer  (2015 Grade 12)	14. Would you rather take a test at school using paper and pencil or using a computer?  Description   Computer	NC	N/A

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Prev	ious item						2019 item						D/A/ R/NC+	Rationale
7. Do	you think you would be able to do ea	ach of the	following?	Fill in one	oval on ea	vH155799 ich line.	<ol><li>Do you think you would be row.</li></ol>	able to do each	of the following	ng? Select one ans	wer choice on 6	ун270215 each	NC	The in-line direction was
		I definitely can't.	I probably can't.	I probably can.	I definitely	y		I definitely can't.	I probably	I probably can.	I definitely			adapted from
a.	Write sentences and paragraphs using a computer	<b>(A)</b>	₿	0	•	VH176967	Write sentences and paragraphs using a computer	<b>∞</b>	®	0	Φ	VH270229		PBA to DBA:
Ъ.	Edit text using a computer	<b>(A)</b>	<b>®</b>	0	0	VH155803	b. Edit text using a computer	<b>®</b>	®	0	•	VH270218		"Fill in one
C.	Use a touchscreen on a computer, tablet, or smartphone	(3)	<b>B</b>	0	0	VH176970	c. Use a touchscreen on a computer, tablet, or smartphone	<b>®</b>	®	0	•	VH270230		oval on each line." was
d.	Look up the meaning of a word	<b>(A)</b>	(B)	0	0	VH155810	d. Look up the meaning of a word using a computer	<b>®</b>	•	0	Φ	VH270225		adapted to
P	using a computer  Draw a picture using a computer	<b>(A)</b>	<b>®</b>	0	0	VH155811	e. Draw a picture using a computer	<b>@</b>	®	0	Φ	VH270226		"Select one
	View or download digital media	<b>(A)</b>	®	0	0	VH155800	f. View or download digital media	<b>®</b>	®	0	•	VH270216		answer
	Create a presentation using a	<b>(A)</b>	®	0	0	VH155820	g. Create a presentation using a computer	0	•	0	•	VH270228		choice on
0.	computer						h. Create a spreadsheet using a computer	<b>®</b>	•	0	•	VH270231		each row."
h.	Create a spreadsheet using a computer	<b>(A)</b>	<b>®</b>	0	0	VH155802	i. Install new software or apps	<b>®</b>	®	0	•	VH270219		
i.	Install new software or apps	0	®	0	0	VH155804 VH155805	j. Participate in online discussions, forums, social networking sites, or virtual	Ø	3	0	•	VH270220		
1-	Participate in online discussions, forums, social networking sites, or	<b>(A)</b>	®	0	Ф		communities  k. Maintain a website or blog	Φ	<b>®</b>	0	Φ	VH270221		
	virtual communities	4				VH155806	Search for information on the Internet	0	®	0	0	VH270221		
	Maintain a website or blog Search for information on the	<b>(A)</b>	® ®	0	0	VH155807	m. Run simulations using a computer	<b>®</b>	8	0	Φ	VH270223		
I.	Internet	9	9				n. Create a graph or chart using a computer	@	®	0	•	VH270224		
m.	Run simulations using a computer	(4)	(18)	0	0	VH155808	o. Write a computer program or app	Ø	®	0	Φ	VH270227		
n.	Create a graph or chart using a computer	<b>(3)</b>	(B)	0	0	VH155809	p. Troubleshoot a problem with a computer	<b>®</b>	•	0	Φ	VH270232		
0.	Write a computer program or app	<b>(3)</b>	(B)	0	0	VH155812	q. Figure out how to use new functions of a digital device	_	-			VH270217		
p.	Troubleshoot a problem with a computer	(8)	<b>®</b>	0	•	VH196843	that I am not yet familiar with	@	3	.0	0	VA12/0217		
q.	Figure out how to use new functions of a digital device that I am not yet familiar with	<b>(</b>	<b>B</b>	0	•	VH224738								

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

#### 2019 Operational Grade 12 Computer and Familiarity Study (CAFS) Student Previous item 2019 item D/A/ Rationale R/NC+ NC N/A 18. On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar 16. On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how with using computers and other digital devices are you? familiar with using computers and other digital devices are you? 1 1 D 0 2 O 2 O 3 O 4 @ 6 D 5 @ 6 0 8 D 7 O 8 ® 10 0 9 O 10 (2015 Grade 12) NC N/A Please read the descriptions of the following four twelfth-grade students. After you read 17. Please read the descriptions of the following four twelfth-grade students. After you each description, you will be asked to answer a question about each student based on the read each description, you will be asked to answer a question about each student information provided. based on the information provided. VH153887 Linda often uses apps to talk to her friends or to play games. She does some of her 19. Linda often uses apps to talk to her friends or to play games. She does some of her homework on her laptop and knows how to write and create tables using a homework on her laptop and knows how to write and create tables using a computer. computer. Linda cannot type with 10 fingers but is pretty fast with two fingers and Linda cannot type with 10 fingers but is pretty fast with two fingers and mostly finds the mostly finds the right keys. right keys. On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar familiar with using computers and other digital devices do you think Linda is? with using computers and other digital devices do you think Linda is? @ O @ 0 D 1 1 D 0 2 @ 3 D 4 O 5 (D) 4 @ 6 D 5 0 8 OD 7 O 8 ® 10 0 9 ® 10 (2015 Grade 12)

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item	2019 item	D/A/ R/NC+	Rationale	
20. Tom often uses apps to talk to his friends or to play games. He does most of his homework on a computer and knows how to write and edit papers on a computer and how to create complex tables or charts. He also created a few presentations using a computer. Tom can type pretty accurately using ten fingers when looking at the computer keyboard.	18. Tom often uses apps to talk to his friends or to play games. He does most of his homework on a computer and knows how to write and edit papers on a computer and how to create complex tables or charts. He also created a few presentations using a computer. Tom can type pretty accurately using ten fingers when looking at the computer keyboard.	NC	N/A	
On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think <u>Tom</u> is?	On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Tom is?			
<b>②</b> 0	● 0			
<b>1</b>	© 1			
© 2	© 2			
Φ 3	© 3			
Φ 4	© 4			
	Ø 5			
© 5	© 6			
© 6	<b>◎</b> 7			
<b>®</b> 7	© 8 © 9			
Φ 8	© 9 © 10			
0 9				
© 10				

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item	2019 item		D/A/ R/NC+	Rationale
21. Susan often uses apps on a smartphone or tablet and does most of her homework on a laptop. She is good at writing and editing papers on her computer and has experience with creating complex tables and charts. Susan can type fast and accurately with 10 fingers without looking at the computer keyboard. She also knows a couple of programming languages. This school year, she built her first app.  On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Susan is?	19. Susan often uses apps on a smartphone or tablet and does most of her homework on a laptop. She is good at writing and editing papers on her computer and has experience with creating complex tables and charts. Susan can type fast and accurately with 10 fingers without looking at the computer keyboard. She also knows a couple of programming languages. This school year, she built her first app.  On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Susan is?  0  1  2  3  4  5  6  7  8  9  10	VICHER	NC	N/A
22. Kevin sometimes plays games on his smartphone or a computer, but he usually does not use a computer for his homework. He used a computer a couple of times to write a paper but never used a computer to create tables, charts, or presentations. Kevin can type with one or two fingers but has to search to find the correct keys on the computer keyboard.  On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Kevin is?	20. Kevin sometimes plays games on his smartphone or a computer, but he usually does not use a computer for his homework. He used a computer a couple of times to write a paper but never used a computer to create tables, charts, or presentations. Kevin can type with one or two fingers but has to search to find the correct keys on the computer keyboard.  On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Kevin is?  0  1  2  3  4  5  6  7  8  9  10	VIENEN	NC	N/A

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

Previous item						2019 item						D/A/ R/NC+	Rationale
23. How familiar are you with each o	f the following?	Fill in one	oval on eac	ch line.	VH155750	21. How familiar are you with	each of the follo	owing? Select one	answer choice	on each row.	V1070194	R	Previous sub-
	Never heard of it	Heard of it once or twice		Know it well, understand the concept			Never heard of	Heard of it once or twice	Heard of it often	Know it well, understand the concept			items "h", "k", "q", "s"
					VH155751	a. E-reader	<b>®</b>	(D)	0	0	VH270195		were
a. E-reader	(A)	<b>(B)</b>	0	0		b. Wi-Fi	@	0	0	0	VH279196		dropped.
b. Wi-Fi	(A)	<b>(B)</b>	0	0	VH155752	c. Firewall d. Hyperlink	Ø	0	0	0	VHI270197 VHI270198		игорреи.
c. Firewall	<b>(A)</b>	<b>(B)</b>	0	0	VH155753	e. Neuro-digital computing	0	0	0	0	VH270199		
					VH155756	f. Instant messaging	<b>®</b>	0	0	Φ	VHZ/0200		The in-line
d. Hyperlink	<b>(A)</b>	(B)	0	0		g. CPU	•	0	0	0	VH270201		direction was
e. Neuro-digital computing	0	<b>(B)</b>	0	0	VH155757	h. Cut and paste	(4)	•	Φ	0	VH270203		
f. Instant messaging	(A)	(13)	0	0	VH155758	Pyramidal browser     Spreadsheet	Ø	0	0	0	VH270204 VH270204		adapted fron
- CDU	(A)	®	0	0	VH155759	k. Limbic wire	0	9	0	00	V18270207		PBA to DBA:
g. CPU						I. Spinalbyte	0	<b>®</b>	0	0	AMERICA		"Fill in one
h. Track changes	<b>(A)</b>	(B)	0	0	VH155760	m. Cloud computing	0	0	0	0	V11270209		oval on each
i. Cut and paste	(A)	®	0	0	VH155761	n. Server o. Compiler	Ø	0	0	00	VH270210		
j. Pyramidal browser	Φ	<b>(B)</b>	0	0	VH155762	p. Callosum board	<b>®</b>	9	0	9	VHIMIN		line." was
k. Pivot table	<b>(A)</b>	(B)	0	0	VH155763	5	•				,		adapted to
1. Spreadsheet	<b>(A)</b>	<b>(B)</b>	0	0	VH155765								"Select one
m. Limbic wire	<b>(A)</b>	(1)	0	0	VH155766								answer choice on
n. Spinalbyte	<b>(</b>	(B)	0	0	VH155767								each row."
o. Cloud computing	<b>(A)</b>	₿	0	0	VH155768								Cacil low.
p. Server	<b>(A)</b>	<b>®</b>	0	0	VH155769								
q. Root directory	<b>(A)</b>	(13)	0	0	VH155770								
r. Compiler	(4)	(B)	0	0	VHI55771								
s. ASCII	(4)	<b>(B)</b>	0	0	VH155772								
t. Callosum board	<b>(A)</b>	(B)	0	0	VH155779								

<sup>+</sup> This column indicates whether the item was dropped (D), added (A), revised (R), or there was no change (NC).

## **Appendix K-1bb: Operational Grade 12 CAFS**

1. At home, do you have any of the following? Select one answer choice on each row.

	Yes	No	
a. A <b>laptop or desktop computer</b> that is only for your use	(A)	®	VH270141
b. A <b>laptop or desktop computer</b> that is shared between you and others	<b>(a)</b>	®	VH270142
c. A tablet that is only for your use	(A)	®	VH270139
d. A <b>tablet</b> that is shared between you and others	<b>(A)</b>	®	VH270140
e. <b>Wi-Fi</b> or some other <b>Internet connection</b> you can use	<b>(A)</b>	®	VH270143
f. A <b>smartphone</b> that is only for your use	(A)	₿	VH270144

VH270234

### **2.** When did you first use a **laptop or desktop computer**?

- I have never used one.
- ® Before I was in kindergarten
- When I was in kindergarten
- When I was in first, second, or third grade
- When I was in fourth or fifth grade
- (D) When I was in sixth, seventh, or eighth grade
- © When I was in high school

VH270089

### 3. When did you first use a tablet?

- Never until this assessment
- Before I was in kindergarten
- When I was in kindergarten
- When I was in first, second, or third grade
- © When I was in fourth or fifth grade
- (D) When I was in sixth, seventh, or eighth grade
- When I was in high school

VI	271	122	5

			VH27023
4.	Wł	nen did you first use a <b>smartphone</b> ?	
	<b>(A)</b>	I have never used one.	
	®	Before I was in kindergarten	
	0	When I was in kindergarten	
	<b>(</b>	When I was in first, second, or third grade	
	Œ	When I was in fourth or fifth grade	
	Ð	When I was in sixth, seventh, or eighth grade	
	<b>©</b>	When I was in high school	
			VH27014
5.		a weekday, about how many hours do you use a laptop or desktop computer for ing schoolwork, including homework?	
	<b>(A)</b>	None	
	®	Less than an hour	
	0	1 to 2 hours	
	<b>(</b>	2 to 3 hours	
	(E)	3 to 4 hours	
	Œ	More than 4 hours	
			VH27014
6.		a weekday, about how many hours do you use a tablet for doing schoolwork, cluding homework?	V112701-
	<b>(A)</b>	None	
	B	Less than an hour	
	0	1 to 2 hours	
	0	2 to 3 hours	
	(E)	3 to 4 hours	
	Œ	More than 4 hours	

### 7. Were you taught any of the following at school? Select one answer choice on each row.

	Yes	No	
a. How to type on a computer keyboard using the correct fingers	0	®	VH270150
b. How to write sentences and paragraphs using a computer	<b>(A)</b>	®	VH270151
c. How to edit text using a computer	(A)	®	VH270164
d. How to search for information on the Internet	<b>(A)</b>	®	VH270152
e. How to use a tablet	A	®	VH270156
f. How to look up the meaning of a word using a computer	<b>®</b>	®	VH270157
g. How to create a spreadsheet using a computer	<b>(</b>	®	VH270154
h. How to create a presentation using a computer	<b>®</b>	®	VH270155
i. How to run simulations using a computer	A	®	VH270159
j. How to write a computer program or app	(A)	®	VH270160
k. How to create a graph or chart using a computer	<b>®</b>	®	VH270161
l. How to troubleshoot problems with a computer	<b>(A)</b>	®	VH270158

**8.** Which of the following are true about the ways in which you and your teachers use computers **at** school? Select **one** answer choice on each row.

	Yes	No	
a. In most of my classes there are <b>laptop or desktop computers</b> that I can use for schoolwork.	<b>®</b>	(8)	VH270166
b. In most of my classes there are <b>tablets</b> that I can use for schoolwork.	<b>®</b>	®	VH270167
c. There is <b>Wi-Fi</b> or some other <b>Internet connection</b> that I can use for schoolwork.	<b>®</b>	®	VH270170
d. Most of my teachers use computers when teaching my classes.	<b>®</b>	®	VH270169
e. Most of my teachers require us to use computers in the classroom.	<b>(A)</b>	®	VH270168

V	H2	70	11	6

- 9. Has your school assigned you a laptop or desktop computer that only you can use?
  - No
  - ® Yes, but I cannot take it home with me.

VH270117

- 10. Has your school assigned you a tablet that only you can use?
  - No
  - ® Yes, but I cannot take it home with me.
  - O Yes, and I can take it home with me.

**11. This school year**, how often have you used a **laptop or desktop computer** to do each of the following? Select **one** answer choice on each row.

		Never	A few times	Once every few weeks	About once a week	More than once a week	
a.	Write a short paper (less than a page) for school	<b>(A)</b>	®	0	0	©	VH270172
b.	Write a paper for school that was longer than a page	<b>(A)</b>	®	0	0	©	VH270173
c.	Search the Internet for a school project	<b>(</b> A)	B	0	0	Ē	VH270174
d.	Practice things in mathematics that you were having trouble learning	<b>®</b>	®	0	0	©	VH270181
e.	Practice things in reading that you were having trouble learning	<b>®</b>	®	0	0	©	VH270177
f.	Take a test	(A)	®	0	0	(E)	VH270175
g.	Create a map	(A)	®	0	0	Œ	VH270178
h.	Work on a website or blog that you maintain	<b>(A)</b>	B	0	0	Ē	VH270179
i.	Create a multimedia presentation on your own	<b>(A)</b>	®	0	0	©	VH270180
j.	Work collaboratively with a team of students to create a multimedia presentation	<b>®</b>	(B)	0	<b>©</b>	©.	VH270176

**12. This school year**, how often have you used a **tablet** to do each of the following? Select **one** answer choice on each row.

		Never	A few times	Once every few weeks	About once a week	More than once a week	
a.	Write a short paper (less than a page) for school	(A)	®	0	0	Œ	VH270183
b.	Write a paper for school that was longer than a page	<b>(A)</b>	®	0	0	©.	VH270188
c.	Search the Internet for a school project	A	B	0	0	Œ	VH270184
d.	Practice things in mathematics that you were having trouble learning	<b>®</b>	®	0	0	©.	VH270185
e.	Practice things in reading that you were having trouble learning	<b>®</b>	®	0	0	©.	VH270186
f.	Take a test	A	®	0	0	Œ	VH270192
g.	Create a map	A	®	0	0	(E)	VH270189
h.	Work on a website or blog that you maintain	A	B	0	0	Œ	VH270190
i.	Create a multimedia presentation <i>on your own</i>	<b>(</b> A)	®	0	0	©.	VH270191
j.	Work collaboratively with a team of students to create a multimedia presentation	<b>®</b>	(3)	0	Φ	©.	VH270187

- 13. Which best describes the way you type on a computer keyboard?
  - I don't know how to type using a computer keyboard.
  - ® I can type with one or two fingers, but I have to search for where the letter keys are.
  - © I can type with one or two fingers, and I know where most of the letter keys are.
  - ① I can type with all ten fingers when I look at the keyboard.
  - © I can type with all ten fingers without looking at the keyboard.

- 14. Would you rather take a test at school using paper and pencil or using a computer?
  - Paper and pencil
  - ® Computer

**15.** Do you think you would be able to do each of the following? Select **one** answer choice on each row.

		I definitely can't.	I probably can't.	I probably can.	I definitely can.	
a.	Write sentences and paragraphs using a computer	<b>(A)</b>	(8)	0	0	VH270229
b.	Edit text using a computer	<b>(A)</b>	®	0	0	VH270218
c.	Use a touchscreen on a computer, tablet, or smartphone	<b>(A)</b>	®	©	0	VH270230
d.	Look up the meaning of a word using a computer	A	®	0	0	VH270225
e.	Draw a picture using a computer	A	®	0	0	VH270226
f.	View or download digital media	A	®	0	0	VH270216
g.	Create a presentation using a computer	A	®	0	<b>(</b>	VH270228
h.	Create a spreadsheet using a computer	A	®	0	0	VH270231
i.	Install new software or apps	A	®	0	0	VH270219
j.	Participate in online discussions, forums, social networking sites, or virtual communities	<b>(4)</b>	®	0	0	VH270220
k.	Maintain a website or blog	<b>(A)</b>	®	0	0	VH270221
1.	Search for information on the Internet	A	®	0	•	VH270222
m	Run simulations using a computer	A	₿	0	0	VH270223
n.	Create a graph or chart using a computer	A	®	0	0	VH270224
0.	Write a computer program or app	A	®	0	0	VH270227
p.	Troubleshoot a problem with a computer	<b>(A)</b>	®	0	0	VH270232
q.	Figure out how to use new functions of a digital device that I am not yet familiar with	<b>®</b>	(8)	0	0	VH270217

16.	On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how
	familiar with using computers and other digital devices are you?

- **(A)** 0
- **®** 1
- © 2
- **1** 3
- © 4
- ① 5
- © 6
- ⊕ 7
- **O** 8
- **D** 9
- © 10

17. Please read the descriptions of the following four twelfth-grade students. After you read each description, you will be asked to answer a question about each student based on the information provided.

**Linda** often uses apps to talk to her friends or to play games. She does some of her homework on her laptop and knows how to write and create tables using a computer. Linda cannot type with 10 fingers but is pretty fast with two fingers and mostly finds the right keys.

On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Linda is?

- **®** 1
- © 2
- ① 3
- © 4
- ① 5
- © 6
- T 7
- **O** 8
- **D** 9
- ® 10

**18. Tom** often uses apps to talk to his friends or to play games. He does most of his homework on a computer and knows how to write and edit papers on a computer and how to create complex tables or charts. He also created a few presentations using a computer. Tom can type pretty accurately using ten fingers when looking at the computer keyboard.

On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Tom is?

- **(A)** 0
- **®** 1
- $\odot$  2
- ① 3
- © 4
- ① 5
- © 6
- **(H)** 7
- **O** 8
- **D** 9
- ® 10

19. Susan often uses apps on a smartphone or tablet and does most of her homework on a laptop. She is good at writing and editing papers on her computer and has experience with creating complex tables and charts. Susan can type fast and accurately with 10 fingers without looking at the computer keyboard. She also knows a couple of programming languages. This school year, she built her first app.

On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Susan is?

- **(A)** 0
- ® 1
- © 2
- **3**
- © 4
- ⑤ 5
- © 6
- **®** 7
- **O** 8
- **O** 9
- © 10

**20. Kevin** sometimes plays games on his smartphone or a computer, but he usually does not use a computer for his homework. He used a computer a couple of times to write a paper but never used a computer to create tables, charts, or presentations. Kevin can type with one or two fingers but has to search to find the correct keys on the computer keyboard.

On a scale from 0 to 10, where 0 is not at all familiar and 10 is very familiar, how familiar with using computers and other digital devices do you think Kevin is?

- **(A)** 0
- **®** 1
- $\bigcirc$  2
- **1** 3
- © 4
- ⑤ 5
- © 6
- T
- **O** 8
- **D** 9
- ® 10

21. How familiar are you with each of the following? Select one answer choice on each row.

	Never heard of it	Heard of it once or twice	Heard of it often	Know it well, understand the concept	
a. E-reader	A	®	0	0	VH270195
b. Wi-Fi	(A)	®	0	0	VH270196
c. Firewall	A	®	0	0	VH270197
d. Hyperlink	A	®	0	0	VH270198
e. Neuro-digital computing	(A)	®	0	0	VH270199
f. Instant messaging	A	®	0	0	VH270200
g. CPU	A	®	0	0	VH270201
h. Cut and paste	A	®	0	0	VH270203
i. Pyramidal browser	A	B	0	0	VH270204
j. Spreadsheet	A	®	0	0	VH270206
k. Limbic wire	A	®	0	0	VH270207
1. Spinalbyte	(A)	®	0	0	VH270208
m. Cloud computing	(A)	®	0	0	VH270209
n. Server	(A)	®	0	0	VH270210
o. Compiler	(A)	®	0	0	VH270212
p. Callosum board	(A)	<b>®</b>	0	0	VH270214

### **Appendix K-1bc: Summary of Changes Operational Grade 4 ESQ**

Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	In the last month, how many different homes have you been living in? (If you have moved in the last month, do not count the home where you used to live.)  ② Zero homes ③ One home ③ Two homes ⑤ Three or more homes  Issue: Socioeconomic Status	A A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	Think about all the people who live with you in your home. Not including you, how many children 17 years or younger live with you?  © 0 © 1 © 2 © More than 2  Issue: Socioeconomic Status	A A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	How many adults 18 years and older live with you?  1 2 More than 2  Issue: Socioeconomic Status	A A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	You said you live in more than one home. Think about all the people who live with you in one of these homes (you can tell us about up to two homes). We will call it Home #1. Not including you, how many children 17 years or younger live with you in Home #1?  ① 0 ① 1 ② 2 ② More than 2  Issue: Socioeconomic Status	A A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.

Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	How many adults 18 years and older live with you in Home #1?  1 2 More than 2  Issue: Socioeconomic Status	884202 <b>A</b>	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	You have told us about the people in one of your homes. Now think about all the people who live with you in your other home. We will call it Home #2. Not including you, how many children 17 years or younger live with you in Home #2?  © 0  © 1  © 2  © More than 2  Issue: Socioeconomic Status	A A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	How many adults 18 years and older live with you in Home #2?  1 2 More than 2  Issue: Socioeconomic Status	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	Now think about all of the adults in all of your homes. How many of the adults that live with you are taking care of you?  1 2 3 4 More than 4  Issue: Socioeconomic Status	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.

Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	You said one adult is taking care of you. Who is this adult?  Mother  Stepmother  Foster mother  Grandmother or female relative  Other female adult (Please specify:)  Father  Stepfather  Foster father  Grandfather or male relative  Other male adult (Please specify:)	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
	Issue: Socioeconomic Status		
N/A		A A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.

Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	Think about the second adult taking care of you. We will call them Adult #2. Who is Adult #2?  Mother  Second mother  Stepmother  Grandmother or female relative  Other female adult (Please specify:)  Father  Second father  Second father  Grandfather or male relative  Other male adult (Please specify:)	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	Issue: Socioeconomic Status  Think about the third adult taking care of you. We will call them Adult #3. Who is Adult #3?  Mother  Second mother  Stepmother  Foster mother  Grandmother or female relative  Other female adult (Please specify:)  Father  Second father  Stepfather  Foster father  Grandfather or male relative  Other male adult (Please specify:)	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.

Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	Think about the fourth adult taking care of you. We will call them Adult #4. Who is Adult #4?  Mother  Second mother  Stepmother  Foster mother  Grandmother or female relative  Other female adult (Please specify:)  Father  Second father  Stepfather  Foster father  Grandfather or male relative  Other male adult (Please specify:)	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.

Previous item	19 Operational Grade 4 Extended Student Questionnal 2019 item	D/A/	Rationale
N/A	In the last month, has your mother worked for pay?  Yes  No  I don't know.  Issue: Socioeconomic Status	R/NC+	This item was added a part of the ESQ specia study for enhanced measurement of socio economic status and household composition.  Please note that this item includes the caregiver title provide by the respondent in a prior item. Possible
			answers include: mother, second mother, stepmother, foster mother, grandmother or female relative, the female adult taking care of you, father, second father, stepfather, foster father, grandfather or male relative, the mal

2019 Operational Grade 4 Extended Student Questionnaire (ESQ) Student					
Previous item	2019 item	D/A/ R/NC+	Rationale		
N/A	In the last month, did your mother work at one job, or did this adult work at two or more jobs  One job Two or more jobs Idon't know.  Issue: Socioeconomic Status		This item was added as part of the ESQ special study for enhanced measurement of socioleconomic status and household composition.  Please note that this item includes the caregiver title provided by the respondent in a prior item. Possible answers include: your mother, your second mother, your stepmother, your grandmother or female relative, the female adult taking care of you, your father, your second father, your stepfather, your foster father, your grandfather or male relative, the male adult relative relative, the male adult relative		

# **Appendix K-1bd: Operational Grade 4 ESQ**

		VH863709
1.	In the last month, how many different homes have you been living in? (If you have moved in the last month, <b>do not</b> count the home where you used to live.)	
	Zero homes	
	One home	
	© Two homes	
	① Three or more homes	
		VH894192
2.	Think about all the people who live with you in your home. Not including you, how many children 17 years or younger live with you?	
	<b>1 0</b>	
	® 1	
	© 2	
	© More than 2	
		VH894196
3.	How many adults 18 years and older live with you?	
	1	
	3 2	
	© More than 2	
		VH894198
4.	You said you live in more than one home. Think about all the people who live with you in one of these homes (you can tell us about up to two homes). We will call it Home #1. Not including you, how many children 17 years or younger live with you in Home #1?	VH894198
	<b>②</b> 0	
	③ 1	
	© 2	
	More than 2	

		VH894202
5.	How many adults 18 years and older live with you in Home #1?	
	<b>(A)</b> 1	
	® 2	
	© More than 2	
		VH894204
6.	You have told us about the people in one of your homes. Now think about all the people who live with you in your other home. We will call it Home #2. Not including you, how many children 17 years or younger live with you in Home #2?	
	<b>a</b> 0	
	© 2	
	More than 2	
		VH894209
7.	How many adults 18 years and older live with you in Home #2?	
	<b>②</b> 1	
	<b>B</b> 2	
	© More than 2	
		VH863933
8.	Now think about <b>all</b> of the adults in <b>all</b> of your homes. How many of the adults that live with you are <b>taking care of you</b> ?	
	① 1	
	® 2	
	© 3	
	① 4	
	© More than 4	

9.	You said one adult is taking care of you. Who is this adult?				
	lack	Mother			
	® Stepmother				
	© Foster mother				
	0	Grandmother or female relative			
	Œ	Other female adult (Please specify:)			
	Ð	Father			
	<b>©</b>	Stepfather			
	$\oplus$	Foster father			
	Ф	Grandfather or male relative			
	Other male adult (Please specify:)				
10.		a said more than one adult is taking care of you. Think about the first adult (you a tell us about up to four adults). We will call them Adult #1. Who is Adult #1?	VH863781		
	A				
	•	Mother			
		Mother Stepmother			
	®				
	®	Stepmother			
	® () ()	Stepmother Foster mother			
	(a) (b) (c) (d)	Stepmother Foster mother Grandmother or female relative			
	(a) (b) (c) (d)	Stepmother  Foster mother  Grandmother or female relative  Other female adult (Please specify:)			
	(a) (b) (c) (d)	Stepmother  Foster mother  Grandmother or female relative  Other female adult (Please specify:)  Father			
	B () D () E ()	Stepmother  Foster mother  Grandmother or female relative  Other female adult (Please specify:)  Father  Stepfather			

11.	• Think about the second adult taking care of you. We will call them Adult #2. Whis Adult #2?				
	<b>(A)</b>	Mother			
	®	Second mother			
	0	Stepmother			
	0	Foster mother			
	(E)	Grandmother or female relative			
	Ð	Other female adult (Please specify:)			
	<b>©</b>	Father			
	$\oplus$	Second father			
	0	Stepfather			
	О	Foster father			
	€	Grandfather or male relative			
	<b>(</b>	Other male adult (Please specify:)			

12.	Think about the third adult taking care of you. We will call them Adult #3. Who is Adult #3?			
	<b>(A)</b>	Mother		
	®	Second mother		
	0	Stepmother		
	0	Foster mother		
	(E)	Grandmother or female relative		
	Ē	Other female adult (Please specify:)		
	<b>©</b>	Father		
	$\oplus$	Second father		
	0	Stepfather		
	Ф	Foster father		
	€	Grandfather or male relative		
	<b>(</b>	Other male adult (Please specify:)		

13.	Think about the fourth adult taking care of you. We will call them Adult #4. Who is Adult #4?		
	<b>(A)</b>	Mother	
	B	Second mother	
	0	Stepmother	
	<b>(</b>	Foster mother	
	(E)	Grandmother or female relative	
	Ð	Other female adult (Please specify:)	
	<b>©</b>	Father	
	$\oplus$	Second father	
	Φ	Stepfather	
	Ф	Foster father	
	⊗	Grandfather or male relative	
	0	Other male adult (Please specify:)	
			VH863863
14.	In	the last month, has <b>your mother</b> worked for pay?	
	<b>(A)</b>	Yes	
	®	No	
	0	I don't know.	
			VH863875
15.	In	the last month, has your second mother worked for pay?	
	<b>(A)</b>	Yes	
	®	No	
	0	I don't know.	

10.	111	the last month, has <b>your stepmother</b> worked for pay?	
	lack	Yes	
	®	No	
	0	I don't know.	
			VH863871
17.	In	the last month, has your foster mother worked for pay?	
	$\bigcirc$	Yes	
	®	No	
	0	I don't know.	
			VH863873
18.	In	the last month, has <b>your grandmother or female relative</b> worked for pay?	
18.		the last month, has <b>your grandmother or female relative</b> worked for pay?  Yes	
18.	(A)	Yes	
18.	<ul><li>(A)</li><li>(B)</li></ul>	Yes No	
18.	<ul><li>(A)</li><li>(B)</li></ul>	Yes	
18.	<ul><li>(A)</li><li>(B)</li></ul>	Yes No	
18.	<ul><li>(A)</li><li>(B)</li></ul>	Yes No	VIII022277
	(A) (B) (O)	Yes No I don't know.	VH863877
	(A) (B) (C)	Yes No I don't know.  the last month, has the female adult taking care of you worked for pay?	VH863877
	<ul><li>(A)</li><li>(B)</li><li>(C)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><li>(D)</li><l< th=""><th>Yes No I don't know.  the last month, has the female adult taking care of you worked for pay? Yes</th><th>VH863877</th></l<></ul>	Yes No I don't know.  the last month, has the female adult taking care of you worked for pay? Yes	VH863877
	(A) (B) (C) (D) (D) (D) (D) (D) (D) (D) (D) (D) (D	Yes No I don't know.  the last month, has the female adult taking care of you worked for pay?  Yes No	VH863877
	(A) (B) (C) (D) (D) (D) (D) (D) (D) (D) (D) (D) (D	Yes No I don't know.  the last month, has the female adult taking care of you worked for pay? Yes	VH863877
	(A) (B) (C) (D) (D) (D) (D) (D) (D) (D) (D) (D) (D	Yes No I don't know.  the last month, has the female adult taking care of you worked for pay?  Yes No	VH863877

20.	In the last month, has your father worked for pay?	
	Yes	
	® No	
	© I don't know.	
		VH863898
21.	In the last month, has your second father worked for pay?	
	Yes	
	® No	
	© I don't know	
		VH863885
22.	In the last month, has your stepfather worked for pay?	
	Yes	
	® No	
	<ul><li>® No</li><li>© I don't know.</li></ul>	
		VH863890
23.		VH863890
23.	© I don't know.  In the last month, has <b>your foster father</b> worked for pay?	VH863890
23.	© I don't know.	VH863890
23.	<ul> <li>✓ I don't know.</li> <li>In the last month, has your foster father worked for pay?</li> <li>✓ Yes</li> </ul>	VH863890
23.	© I don't know.  In the last month, has <b>your foster father</b> worked for pay?  ② Yes ③ No	VH863890
23.	© I don't know.  In the last month, has <b>your foster father</b> worked for pay?  ② Yes ③ No	VH863890

171	UQ	62	20	4

		VH863894
24.	In the last month, has your grandfather or male relative worked for pay?	
	Yes	
	® No	
	© I don't know	
		VH863899
25.	In the last month, has the male adult taking care of you worked for pay?	
	① Yes	
	® No	
	© I don't know.	
		VH863907
26.	In the last month, did <b>your mother</b> work at one job, or did this adult work at two or more jobs?	
	One job	
	® Two or more jobs	
	© I don't know.	
		VH863916
27.	In the last month, did <b>your second mother</b> work at one job, or did this adult work at two or more jobs?	V11803710
	One job	
	® Two or more jobs	
	© I don't know.	

VL	100	:20	$\Omega$

			VH863909
28.		the last month, did <b>your stepmother</b> work at one job, or did this adult work at o or more jobs?	
	$\bigcirc$	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863911
29.		the last month, did <b>your foster mother</b> work at one job, or did this adult work at o or more jobs?	
	(A)	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863913
30.		the last month, did <b>your grandmother or female relative</b> work at one job, or did s adult work at two or more jobs?	
	(A)	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863918
31.		the last month, did <b>the female adult taking care of you</b> work at one job, or did s adult work at two or more jobs?	
	(A)	One job	
	®	Two or more jobs	
	0	I don't know.	

VIL	106	20	10

			VH863919
32.		the last month, did <b>your father</b> work at one job, or did this adult work at two or ore jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863929
33.		the last month, did <b>your second father</b> work at one job, or did this adult work at o or more jobs?	
	$\bigcirc$	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863920
34.		the last month, did <b>your stepfather</b> work at one job, or did this adult work at o or more jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863924
35.		the last month, did <b>your foster father</b> work at one job, or did this adult work at o or more jobs?	
	(A)	One job	
	®	Two or more jobs	
	0	I don't know.	

- **36.** In the last month, did **your grandfather or male relative** work at one job, or did this adult work at two or more jobs?
  - One job
  - ® Two or more jobs
  - © I don't know.

- **37.** In the last month, did **the male adult taking care of you** work at one job, or did this adult work at two or more jobs?
  - One job
  - ® Two or more jobs
  - © I don't know.

## **Appendix K-1be: Summary of Changes Operational Grade 8 ESQ**

Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	In the last month, how many different homes have you been living in? (If you have moved in the last month, do not count the home where you used to live.)  ② Zero homes ③ One home ② Two homes ③ Three or more homes	Α	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
21/2	Issue: Socioeconomic Status	102	This item was added as
N/A	Think about all the people who live with you in your home. Not including you, how many children 17 years or younger live with you?  © 0  © 1  © 2  © More than 2  Issue: Socioeconomic Status	A A	part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	How many adults 18 years and older live with you?  1 2 More than 2  Issue: Socioeconomic Status	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	You said you live in more than one home. Think about all the people who live with you in one of these homes (you can tell us about up to two homes). We will call it Home #1. Not including you, how many children 17 years or younger live with you in Home #1?  ① 0  ① 1  ② 2  ② More than 2  Issue: Socioeconomic Status	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.

Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	How many adults 18 years and older live with you in Home #1?  1 2 More than 2  Issue: Socioeconomic Status	1894202 A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	You have told us about the people in one of your homes. Now think about all the people who live with you in your other home. We will call it Home #2. Not including you, how many children 17 years or younger live with you in Home #2?  © 0  © 1  © 2  © More than 2  Issue: Socioeconomic Status	A A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	How many adults 18 years and older live with you in Home #2?  1 2 More than 2  Issue: Socioeconomic Status	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	Now think about all of the adults in all of your homes. How many of the adults that live with you are taking care of you?  1 2 3 4 More than 4  Issue: Socioeconomic Status	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.

Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	You said one adult is taking care of you. Who is this adult?  Mother  Stepmother  Foster mother  Grandmother or female relative  Other female adult (Please specify:)  Father  Stepfather  Foster father  Grandfather or male relative  Other male adult (Please specify:)	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
	Issue: Socioeconomic Status		
N/A	You said more than one adult is taking care of you. Think about the first adult (you can tell us about up to four adults). We will call them Adult #1. Who is Adult #1?  Mother  Stepmother  Foster mother  Grandmother or female relative  Other female adult (Please specify:)  Father  Stepfather  Foster father  Grandfather or male relative  Other male adult (Please specify:)	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.

Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	Think about the second adult taking care of you. We will call them Adult #2. Who is Adult #2?  Mother  Second mother  Stepmother  Foster mother  Grandmother or female relative  Other female adult (Please specify:)  Father  Second father  Stepfather  Foster father  Grandfather or male relative  Other male adult (Please specify:)	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	Issue: Socioeconomic Status  Think about the third adult taking care of you. We will call them Adult #3. Who is Adult #3?  Mother  Second mother  Stepmother  Grandmother or female relative  Other female adult (Please specify:)  Father  Second father  Second father  Grandfather or male relative  Other male adult (Please specify:)	A A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.

Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	Think about the fourth adult taking care of you. We will call them Adult #4. Who is Adult #4?  Mother  Second mother  Stepmother  Foster mother  Grandmother or female relative  Other female adult (Please specify:)  Father  Second father  Stepfather  Foster father  Grandfather or male relative  Other male adult (Please specify:)	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.

	2019 Operational Grade 8 Extended Student Questionnaire (ESQ) Student				
Previous item	2019 item	D/A/ R/NC+	Rationale		
N/A	How far in school did your mother go?  She did not finish high school.  She graduated from high school or has a high school degree.  She had some college but did not graduate.  She graduated from college.  I don't know.  Issue: Socioeconomic Status	VIBSCS10 A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.  Please note that this item includes the caregiver title provided by the respondent in a prior item. Possible answers include: your mother / your second mother / your stepmother / your stepmother or female relative / the female adult taking care of you / your foster father / your stepfather / your grandfather or male relative / the male adult taking care of you		

Previous item	19 Operational Grade 8 Extended Student Questionna  2019 item	D/A/ R/NC+	Rationale
N/A	In the last month, has your mother worked for pay?  Yes  No  I don't know.  Issue: Socioeconomic Status	VIBGSSCI A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
			Please note that this item includes the caregiver title provided by the respondent in a prior item. Possible answers include: mother, second mother, stepmother, foster mother, grandmother or female relative, the female adult taking care of you, father, second father, stepfather, foster father, grandfather or male relative, the male adult taking care of

2019 Operational Grade 8 Extended Student Questionnaire (ESQ) Student				
Previous item	2019 item	D/A/ R/NC+	Rationale	
N/A	In the last month, did your mother work at one job, or did this adult work at two or more jobs?  ① One job ① Two or more jobs ② I don't know.  Issue: Socioeconomic Status		This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.	
			Please note that this item includes the caregiver title provided by the respondent in a prior item. Possible answers include: your mother, your second mother, your stepmother, your foster mother, your grandmother or female relative, the female adult taking care of you, your father, your second father, your stepfather, your foster father, your grandfather or male relative, the male adult relative, the male adult and the step father.	

# **Appendix K-1bf: Operational Grade 8 ESQ**

		VH863709
1.	In the last month, how many different homes have you been living in? (If you have moved in the last month, <b>do not</b> count the home where you used to live.)	
	Zero homes	
	One home	
	© Two homes	
	① Three or more homes	
		VH894192
2.	Think about all the people who live with you in your home. Not including you, how many children 17 years or younger live with you?	
	<b>②</b> 0	
	® 1	
	© 2	
	① More than 2	
		VH894196
3.	How many adults 18 years and older live with you?	
	4 1	
	© 2	
	© More than 2	
		VH894198
4.	You said you live in more than one home. Think about all the people who live with you in one of these homes (you can tell us about up to two homes). We will call it Home #1. Not including you, how many children 17 years or younger live with you in Home #1?	
	® 1	
	© 2	
	© More than 2	

		VH894202
5.	How many adults 18 years and older live with you in Home #1?	
	® 2	
	© More than 2	
		VH894204
6.	You have told us about the people in one of your homes. Now think about all the people who live with you in your other home. We will call it Home #2. Not including you, how many children 17 years or younger live with you in Home #2?	
	<b>②</b> 0	
	® 1	
	© 2	
	© More than 2	
		VH894209
7.	How many adults 18 years and older live with you in Home #2?	
	<b>1</b>	
	® 2	
	© More than 2	
		VH863933
8.	Now think about <b>all</b> of the adults in <b>all</b> of your homes. How many of the adults that live with you are <b>taking care of you</b> ?	
	® 2	
	© 3	
	① 4	
	© More than 4	

9.	You	u said one adult is taking care of you. Who is this adult?	
	<b>(A)</b>	Mother	
	$^{ ext{ B}}$	Stepmother	
	0	Foster mother	
	0	Grandmother or female relative	
	(E)	Other female adult (Please specify:)	
	Ð	Father	
	<b>©</b>	Stepfather	
	$\oplus$	Foster father	
	Ф	Grandfather or male relative	
	Э	Other male adult (Please specify:)	
10.		u said more than one adult is taking care of you. Think about the first adult (you a tell us about up to four adults). We will call them Adult #1. Who is Adult #1?	VH863781
	<b>(A)</b>	Mother	
	$^{ ext{ B}}$	Stepmother	
	0	Foster mother	
	<b>(</b>	Grandmother or female relative	
	(E)	Other female adult (Please specify:)	
	Ð	Father	
	<b>©</b>		
	$\oplus$	Stepfather	
	_	Stepfather Foster father	
	0	_	

11.		ink about the second adult taking care of you. We will call them Adult #2. Who Adult #2?
	<b>(A)</b>	Mother
	®	Second mother
	0	Stepmother
	<b>(</b>	Foster mother
	(E)	Grandmother or female relative
	Ð	Other female adult (Please specify:)
	©	Father
	$\oplus$	Second father
	Ф	Stepfather
	Э	Foster father
	⊗	Grandfather or male relative
	<b>(</b>	Other male adult (Please specify:)

12.		ink about the third adult taking care of you. We will call them Adult #3. Who is ult #3?
	<b>(A)</b>	Mother
	B	Second mother
	0	Stepmother
	<b>(</b>	Foster mother
	Œ	Grandmother or female relative
	Ð	Other female adult (Please specify:)
	<b>©</b>	Father
	$\oplus$	Second father
	Φ	Stepfather
	О	Foster father
	⊗	Grandfather or male relative
	<b>(</b>	Other male adult (Please specify:

13.		ink about the fourth adult taking care of you. We will call them Adult #4. Who Adult #4?	
	<b>(A)</b>	Mother	
	®	Second mother	
	0	Stepmother	
	<b>(</b>	Foster mother	
	(E)	Grandmother or female relative	
	(Ē)	Other female adult (Please specify:)	
	<b>©</b>	Father	
	$\oplus$	Second father	
	Ф	Stepfather	
	Ф	Foster father	
	⊗	Grandfather or male relative	
	0	Other male adult (Please specify:)	
			VH8638
14.	Но	w far in school did <b>your mother</b> go?	
	$\bigcirc$	She did not finish high school.	
	®	She graduated from high school or has a high school degree.	
	0	She had some college but did not graduate.	

① She graduated from college.

© I don't know.

17	ш	26	2	91	1

<b>15.</b>	How	far in	school	did	your	second	mother	go
------------	-----	--------	--------	-----	------	--------	--------	----

- She did not finish high school.
- She graduated from high school or has a high school degree.
- © She had some college but did not graduate.
- She graduated from college.
- © I don't know.

#### **16.** How far in school did your stepmother go?

- She did not finish high school.
- She graduated from high school or has a high school degree.
- © She had some college but did not graduate.
- She graduated from college.
- © I don't know.

VH863816

#### 17. How far in school did your foster mother go?

- She did not finish high school.
- She graduated from high school or has a high school degree.
- © She had some college but did not graduate.
- She graduated from college.
- © I don't know.

V	НЯ	63	27	n

18.	How	far	in	school	did	your	grandmother	or	female	relative	go
-----	-----	-----	----	--------	-----	------	-------------	----	--------	----------	----

- She did not finish high school.
- She graduated from high school or has a high school degree.
- © She had some college but did not graduate.
- She graduated from college.
- © I don't know.

#### 19. How far in school did the female adult taking care of you go?

- She did not finish high school.
- She graduated from high school or has a high school degree.
- © She had some college but did not graduate.
- She graduated from college.
- © I don't know.

VH863841

## 20. How far in school did your father go?

- He did not finish high school.
- He graduated from high school or has a high school degree.
- He had some college but did not graduate.
- He graduated from college.
- © I don't know.

171	ш	Q,	50	22	5	ς.

21.	How	far	in	school	did	your	second	father	go
-----	-----	-----	----	--------	-----	------	--------	--------	----

- He did not finish high school.
- He graduated from high school or has a high school degree.
- He had some college but did not graduate.
- He graduated from college.
- © I don't know.

#### 22. How far in school did your stepfather go?

- He did not finish high school.
- The graduated from high school or has a high school degree.
- He had some college but did not graduate.
- He graduated from college.
- © I don't know.

VH863849

## **23.** How far in school did your foster father go?

- He did not finish high school.
- He graduated from high school or has a high school degree.
- He had some college but did not graduate.
- He graduated from college.
- © I don't know.

171	UQ	62	95

		VH863851
24.	How far in school did your grandfather or male relative go?	
	He did not finish high school.	
	He graduated from high school or has a high school degree.	
	He had some college but did not graduate.	
	He graduated from college.	
	© I don't know.	
		VH863859
25.	How far in school did the male adult taking care of you go?	
	He did not finish high school.	
	He graduated from high school or has a high school degree.	
	© He had some college but did not graduate.	
	① He graduated from college.	
	© I don't know.	
		VH863863
26.	In the last month, has your mother worked for pay?	
	Yes	
	® No	
	© I don't know.	
		VH863875
27.	In the last month, has <b>your second mother</b> worked for pay?	
	Yes	
	® No	
	© I don't know.	

28.	In the last month, has <b>your stepmother</b> worked for pay?	
	Yes	
	® No	
	© I don't know.	
		VH863871
29.	In the last month, has your foster mother worked for pay?	
	Yes	
	® No	
	© I don't know.	
		VH863873
30.	In the last month, has your grandmother or female relative worked for pay?	
	Yes	
	® No	
	© I don't know.	
		VH863877
31.	In the last month, has the female adult taking care of you worked for pay?	
	Yes	
	® No	
	© I don't know.	

<b>32.</b>	In	the last month, has your father worked for pay?	
	<b>(A)</b>	Yes	
	®	No	
	0	I don't know.	
			VH863898
33.	In	the last month, has your second father worked for pay?	
	<b>(A)</b>	Yes	
	®	No	
	0	I don't know	
			VH863885
34.	In	the last month, has <b>your stepfather</b> worked for pay?	
	<b>(A)</b>	Yes	
	®	No	
	0	I don't know.	
			VH863890
35.	In	the last month, has <b>your foster father</b> worked for pay?	
	<b>(A)</b>	Yes	
	®	No	
		I don't know.	

17	LIQ	62	20	4

2 (		VH863894
36.	In the last month, has your grandfather or male relative worked for pay?	
	Yes	
	® No	
	© I don't know	
		VH863899
<b>37.</b>	In the last month, has the male adult taking care of you worked for pay?	
	Yes	
	® No	
	© I don't know.	
		VH863907
38.	In the last month, did <b>your mother</b> work at one job, or did this adult work at two	
	or more jobs?	
	One job	
	Two or more jobs	
	© I don't know.	
		VH863916
39.	In the last month, did <b>your second mother</b> work at one job, or did this adult work at two or more jobs?	
	One job	
	® Two or more jobs	
	© I don't know.	
	© I don't know.	

VL	00	:20	$\Omega$

			VH863909
40.		the last month, did <b>your stepmother</b> work at one job, or did this adult work at o or more jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863911
41.		the last month, did <b>your foster mother</b> work at one job, or did this adult work at o or more jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863913
42.		the last month, did <b>your grandmother or female relative</b> work at one job, or did s adult work at two or more jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863918
43.		the last month, did <b>the female adult taking care of you</b> work at one job, or did s adult work at two or more jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	

171	UQ	62	01	0

			VH863919
44.		the last month, did <b>your father</b> work at one job, or did this adult work at two or ore jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863929
45.		the last month, did <b>your second father</b> work at one job, or did this adult work at o or more jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863920
46.		the last month, did <b>your stepfather</b> work at one job, or did this adult work at o or more jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863924
47.		the last month, did <b>your foster father</b> work at one job, or did this adult work at o or more jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	

- **48.** In the last month, did **your grandfather or male relative** work at one job, or did this adult work at two or more jobs?
  - One job
  - ® Two or more jobs
  - © I don't know.

- **49.** In the last month, did **the male adult taking care of you** work at one job, or did this adult work at two or more jobs?
  - One job
  - ® Two or more jobs
  - © I don't know.

# **Appendix K-1bg: Summary of Changes Operational Grade 12 ESQ**

203	2019 Operational Grade 12 Extended Student Questionnaire (ESQ) Student		
Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	In the last month, how many different homes have you been living in? (If you have moved in the last month, do not count the home where you used to live.)  ② Zero homes ③ One home ② Two homes ③ Three or more homes  Issue: Socioeconomic Status	A A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	Think about all the people who live with you in your home. Not including you, how many children 17 years or younger live with you?  © 0  © 1  © 2  © More than 2	A A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	Issue: Socioeconomic Status  Not including you, how many adults 18 years and older live with you?  1 2 More than 2  Issue: Socioeconomic Status	A A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	You said you live in more than one home. Think about all the people who live with you in one of these homes (you can tell us about up to two homes). We will call it Home #1. Not including you, how many children 17 years or younger live with you in Home #1?  © 0  © 1  © 2  © More than 2	A A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.

Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	Not including you, how many adults 18 years and older live with you in Home #1?  1 2 More than 2  Issue: Socioeconomic Status	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	You have told us about the people in one of your homes. Now think about all the people who live with you in your other home. We will call it Home #2. Not including you, how many children 17 years or younger live with you in Home #2?  © 0  © 1  © 2  © More than 2  Issue: Socioeconomic Status	<b>A</b>	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	Not including you, how many adults 18 years and older live with you in Home #2?  1 2 More than 2  Issue: Socioeconomic Status	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	Now think about all of the adults in all of your homes. How many of the adults that live with you are taking care of you?  1 2 3 4 More than 4  Issue: Socioeconomic Status	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.

2019 Operational Grade 12 Extended Student Questionnaire (ESQ) Student			
Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	You said one adult is taking care of you. Who is this adult?  Mother  Stepmother  Foster mother  Grandmother or female relative  Other female adult (Please specify:)  Father  Stepfather  Foster father  Grandfather or male relative  Other male adult (Please specify:)	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	You said more than one adult is taking care of you. Think about the first adult (you can tell us about up to four adults). We will call them Adult #1. Who is Adult #1?  Mother  Stepmother  Foster mother  Grandmother or female relative  Other female adult (Please specify:)  Father  Stepfather  Foster father  Grandfather or male relative  Other male adult (Please specify:)	A A	This item was added as part of the ESQ special study for enhanced measurement of socio economic status and household composition.

Previous item	<b>2019 item</b>	D/A/ R/NC+	Rationale
N/A	Think about the second adult taking care of you. We will call them Adult #2. Who is Adult #2?  Mother  Second mother  Stepmother  Foster mother  Grandmother or female relative  Other female adult (Please specify:)  Father  Second father  Second father  Foster father  Grandfather or male relative  Other male adult (Please specify:)	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.
N/A	Issue: Socioeconomic Status  Think about the third adult taking care of you. We will call them Adult #3. Who is Adult #3?  Mother Second mother Stepmother Foster mother	A A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household
	© Grandmother or female relative  © Other female adult (Please specify:)  © Father  © Second father  © Stepfather  © Foster father  © Grandfather or male relative  © Other male adult (Please specify:)		composition.

Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	Think about the fourth adult taking care of you. We will call them Adult #4. Who is Adult #4?  Mother  Second mother  Stepmother  Grandmother or female relative  Other female adult (Please specify:)  Father  Second father  Stepfather  Grandfather or male relative  Other male adult (Please specify:)	A	This item was added as part of the ESQ special study for enhanced measurement of socioeconomic status and household composition.

Previous item	2019 item	D/A/ R/NC+	Rationale
N/A	How far in school did your mother go?  She did not finish high school.  She graduated from high school or has a high school degree.  She had some college but did not graduate.  She graduated from college.  I don't know.  Issue: Socioeconomic Status	VIRGINIO A	This item was added as part of the ESQ special study for enhanced measurement of socio economic status and household composition.  Please note that this item includes the caregiver title provided by the respondent in a prior item. Possible answers include: your mother / your second mother / your stepmother / your grandmother or female relative / the female adult taking care of you / your father / your stepfather / your stepfather / your grandfather or male relative / the male adult taking care of

Previous item	2019 item	D/A/ R/NC+	Rationale
	In the last month, has your mother worked for pay?            Yes	VHRESNEJ A	This item was added at part of the ESQ special study for enhanced measurement of socio economic status and household composition.  Please note that this item includes the caregiver title provided by the respondent in a prior item. Possible answers include: mother, second mother, stepmother, foster mother, grandmother or female relative, the female adult taking care of you, father, second father, stepfather, foster father, grandfather or male relative, the male adult taking care of

Previous item	.9 Operational Grade 12 Extended Student Questionnaire (ESQ)  2019 item	D/A/	Rationale
N/A	In the last month, did your mother work at one job, or did this adult work at two or more jobs?  ② One job ① Two or more jobs ② I don't know.  Issue: Socioeconomic Status	R/NC+	This item was added a part of the ESQ special study for enhanced measurement of socio economic status and household composition.  Please note that this item includes the caregiver title provided by the respondent in a prior item. Possible answers include: your mother, your second mother, your stepmother, your foster mother, your grandmother or female relative, the
			female adult taking care of you, your father, your second father, your
			stepfather, your foste father, your grandfather or male relative, the male adu taking care of you

# **Appendix K-1bh: Operational Grade 12 ESQ**

		VH863709
1.	In the last month, how many different homes have you been living in? (If you have moved in the last month, <b>do not</b> count the home where you used to live.)	
	Zero homes	
	⑤ One home	
	© Two homes	
	① Three or more homes	
		VH894192
2.	Think about all the people who live with you in your home. Not including you, how many children 17 years or younger live with you?	
	<b>a</b> 0	
	® 1	
	© 2	
	© More than 2	
		VH894194
3.	Not including you, how many adults 18 years and older live with you?	
	<b>③</b> 1	
	® 2	
	© More than 2	
		VH894198
4.	You said you live in more than one home. Think about all the people who live with you in one of these homes (you can tell us about up to two homes). We will call it Home #1. Not including you, how many children 17 years or younger live with you in Home #1?	
	<b>a</b> 0	
	® 1	
	© 2	
	© More than 2	

		VH894200
5.	Not including you, how many adults 18 years and older live with you in Home #1?	
	1	
	②     ②     ②     ③     ②     ③     ②     ③     ②     ③     ②     ③     ③     ②     ③     ③     ②     ③     ③     ②     ③     ②     ③     ②     ③     ②     ③     ②     ③     ③     ②     ③     ②     ③     ③     ②     ③     ②     ③     ③     ②     ③     ③     ②     ③     ③     ②     ③     ③     ②     ③     ③     ②     ③     ③     ③     ②     ③     ③     ②     ③     ④     ③     ④     ③     ④     ③     ④     ③     ④     ③     ④     ③     ④     ④     ④     ④     ④     ⑤     ④     ⑤     ⑥     ⑤     ⑥     ⑤     ⑥     ⑥     ⑤     ⑥      ⑥	
	© More than 2	
		VH894204
6.	You have told us about the people in one of your homes. Now think about all the people who live with you in your other home. We will call it Home #2. Not including you, how many children 17 years or younger live with you in Home #2?	
	<b>②</b> 0	
	® 1	
	© 2	
	More than 2	
		VH894207
7.	Not including you, how many adults 18 years and older live with you in Home #2?	
	1	
	© 2	
	© More than 2	
		VH863933
8.	Now think about <b>all</b> of the adults in <b>all</b> of your homes. How many of the adults that live with you are <b>taking care of you</b> ?	
	<b>1</b>	
	® 2	
	© 3	
	① 4	
	© More than 4	

9.	You	a said one adult is taking care of you. Who is this adult?	
	lack	Mother	
	®	Stepmother	
	0	Foster mother	
	0	Grandmother or female relative	
	(E)	Other female adult (Please specify:)	
	Ð	Father	
	<b>©</b>	Stepfather	
	$\oplus$	Foster father	
	Ф	Grandfather or male relative	
	Ф	Other male adult (Please specify:)	
			VH863781
10.		a said more than one adult is taking care of you. Think about the first adult (you	
		tell us about up to four adults). We will call them Adult #1. Who is Adult #1?	
		tell us about up to four adults). We will call them Adult #1. Who is Adult #1?	
	<b>(A)</b>	tell us about up to four adults). We will call them Adult #1. Who is Adult #1?  Mother	
	<ul><li>(A)</li><li>(B)</li></ul>	tell us about up to four adults). We will call them Adult #1. Who is Adult #1?  Mother  Stepmother	
	A B O D	Mother Stepmother Foster mother	
	(A) (B) (C) (D) (H)	Mother Stepmother Foster mother Grandmother or female relative	
	(A) (B) (C) (D) (H)	Mother Stepmother Foster mother Grandmother or female relative  Other female adult (Please specify:)	
		Mother Stepmother Foster mother Grandmother or female relative  Other female adult (Please specify:)  Father	
		Mother Stepmother Grandmother or female relative  Other female adult (Please specify:)  Father Stepfather	

11.		ink about the second adult taking care of you. We will call them Adult #2. Who Adult #2?
	$\bigcirc$	Mother
	®	Second mother
	0	Stepmother
	0	Foster mother
	Œ	Grandmother or female relative
	(Ē)	Other female adult (Please specify:)
	<b>©</b>	Father
	$\oplus$	Second father
	0	Stepfather
	Ф	Foster father
	⊗	Grandfather or male relative
	0	Other male adult (Please specify:)

12.		ink about the third adult taking care of you. We will call them Adult #3. Who is ult #3?
	<b>(A)</b>	Mother
	®	Second mother
	0	Stepmother
	0	Foster mother
	(E)	Grandmother or female relative
	(Ē)	Other female adult (Please specify:)
	©	Father
	$\oplus$	Second father
	0	Stepfather
	О	Foster father
	⊗	Grandfather or male relative
	0	Other male adult (Please specify:)

13.		ink about the fourth adult taking care of you. We will call them Adult #4. Who Adult #4?	
	<b>(A)</b>	Mother	
	®	Second mother	
	O	Stepmother	
	0	Foster mother	
	(E)	Grandmother or female relative	
	(Ē)	Other female adult (Please specify:)	
	<b>©</b>	Father	
	$\oplus$	Second father	
	Ф	Stepfather	
	О	Foster father	
	$\otimes$	Grandfather or male relative	
	<b>(</b>	Other male adult (Please specify:)	
			VH8638
14.	Но	w far in school did <b>your mother</b> go?	
	lack	She did not finish high school.	
	$^{lacktriangle}$	She graduated from high school or has a high school degree.	
	$\bigcirc$	She had some college but did not graduate.	

① She graduated from college.

© I don't know.

17	ш	26	2	91	1

<b>15.</b>	How	far in	school	did	your	second	mother	go
------------	-----	--------	--------	-----	------	--------	--------	----

- She did not finish high school.
- ® She graduated from high school or has a high school degree.
- © She had some college but did not graduate.
- She graduated from college.
- © I don't know.

### **16.** How far in school did your stepmother go?

- She did not finish high school.
- She graduated from high school or has a high school degree.
- © She had some college but did not graduate.
- She graduated from college.
- © I don't know.

VH863816

# 17. How far in school did your foster mother go?

- She did not finish high school.
- She graduated from high school or has a high school degree.
- © She had some college but did not graduate.
- She graduated from college.
- © I don't know.

17	ш	26	2	22	0

18.	How	far	in	school	did	your	grandmother	or	female	relative	go
-----	-----	-----	----	--------	-----	------	-------------	----	--------	----------	----

- She did not finish high school.
- She graduated from high school or has a high school degree.
- © She had some college but did not graduate.
- She graduated from college.
- © I don't know.

### 19. How far in school did the female adult taking care of you go?

- She did not finish high school.
- She graduated from high school or has a high school degree.
- © She had some college but did not graduate.
- She graduated from college.
- © I don't know.

VH863841

# 20. How far in school did your father go?

- He did not finish high school.
- He graduated from high school or has a high school degree.
- He had some college but did not graduate.
- He graduated from college.
- © I don't know.

V	ш	Q	6	2	Q	5	6

21.	How	far	in	school	did	your	second	father	go
-----	-----	-----	----	--------	-----	------	--------	--------	----

- He did not finish high school.
- He graduated from high school or has a high school degree.
- He had some college but did not graduate.
- He graduated from college.
- © I don't know.

### 22. How far in school did your stepfather go?

- He did not finish high school.
- The graduated from high school or has a high school degree.
- He had some college but did not graduate.
- He graduated from college.
- © I don't know.

VH863849

# **23.** How far in school did your foster father go?

- He did not finish high school.
- He graduated from high school or has a high school degree.
- He had some college but did not graduate.
- He graduated from college.
- © I don't know.

VI	96	20	25

		VH863851
24.	How far in school did your grandfather or male relative go?	
	He did not finish high school.	
	He graduated from high school or has a high school degree.	
	He had some college but did not graduate.	
	He graduated from college.	
	© I don't know.	
		VH863859
25.	How far in school did the male adult taking care of you go?	
	He did not finish high school.	
	He graduated from high school or has a high school degree.	
	© He had some college but did not graduate.	
	① He graduated from college.	
	© I don't know.	
		VH863863
26.	In the last month, has your mother worked for pay?	
	Yes	
	® No	
	© I don't know.	
		VH863875
27.	In the last month, has <b>your second mother</b> worked for pay?	
	Yes	
	® No	
	© I don't know.	

2	28. In the last month, has your stepmother worked for pay?	
	A Yes	
	® No	
	◎ I don't know.	
		VH863871
2	29. In the last month, has your foster mother worked for pay?	
	Yes	
	® No	
	© I don't know.	
		VH863873
3	<b>30.</b> In the last month, has <b>your grandmother or female relative</b> worked for pay?	
	Yes	
	® No	
	© I don't know.	
	T don't know.	
_		VH863877
3	31. In the last month, has <b>the female adult taking care of you</b> worked for pay?	
	♠ Yes	
	® No	
	© I don't know.	

32.	In	the last month, has your father worked for pay?	
	lack	Yes	
	$^{\odot}$	No	
	0	I don't know.	
			VH863898
33.	In	the last month, has your second father worked for pay?	
	<b>(A)</b>	Yes	
	®	No	
	0	I don't know	
			VH863885
34.	In	the last month, has your stepfather worked for pay?	
	<b>(A)</b>	Yes	
	®	No	
	0	I don't know.	
			VH863890
35.	In	the last month, has your foster father worked for pay?	
	<b>(A)</b>	Yes	
		Yes No	
	®		
	®	No	
	®	No	

17	LIQ	62	20	4

2 (		VH863894
36.	In the last month, has your grandfather or male relative worked for pay?	
	Yes	
	® No	
	© I don't know	
		VH863899
<b>37.</b>	In the last month, has the male adult taking care of you worked for pay?	
	Yes	
	® No	
	© I don't know.	
		VH863907
38.	In the last month, did <b>your mother</b> work at one job, or did this adult work at two	
	or more jobs?	
	One job	
	Two or more jobs	
	© I don't know.	
		VH863916
39.	In the last month, did <b>your second mother</b> work at one job, or did this adult work at two or more jobs?	
	One job	
	® Two or more jobs	
	© I don't know.	
	© I don't know.	

17	ш	26	200	no

			VH863909
40.		the last month, did <b>your stepmother</b> work at one job, or did this adult work at o or more jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863911
41.		the last month, did <b>your foster mother</b> work at one job, or did this adult work at or more jobs?	
	$\bigcirc$	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863913
42.		the last month, did <b>your grandmother or female relative</b> work at one job, or did s adult work at two or more jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863918
43.		the last month, did <b>the female adult taking care of you</b> work at one job, or did s adult work at two or more jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	

171	UQ	62	01	0

			VH863919
44.		the last month, did <b>your father</b> work at one job, or did this adult work at two or ore jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863929
45.		the last month, did <b>your second father</b> work at one job, or did this adult work at o or more jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863920
46.		the last month, did <b>your stepfather</b> work at one job, or did this adult work at o or more jobs?	
	<b>(A)</b>	One job	
	®	Two or more jobs	
	0	I don't know.	
			VH863924
<b>47.</b>		the last month, did <b>your foster father</b> work at one job, or did this adult work at o or more jobs?	
	(A)	One job	
	®	Two or more jobs	
	0	I don't know.	

- **48.** In the last month, did **your grandfather or male relative** work at one job, or did this adult work at two or more jobs?
  - One job
  - ® Two or more jobs
  - © I don't know.

- **49.** In the last month, did **the male adult taking care of you** work at one job, or did this adult work at two or more jobs?
  - One job
  - Two or more jobs
  - © I don't know.