# NATIONAL CENTER FOR EDUCATION STATISTICS NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS 

# National Assessment of Education Progress (NAEP) 2022 <br> Long-Term Trend (LTT) 2020 Update 2 

Appendix K4
Long Term Trend (LTT) 2022 Student Questionnaires

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This appendix is unchanged from v. 15 of this package, which described NAEP 2019-2020. Due to COVID-19 school closures in Spring 2020, although LTT 9 and LTT 13 were successfully administered, LTT 17 was not administered on schedule. We now plan to administer LTT 17 in Spring 2022. The materials here represent our best plans for the administration of LTT 17 at this time and will be finalized in Amendment \#1 by June 2021.

## Table of Contents

Appendix K4-1: Summary of Changes Operational Age 9 Mathematics ..... 3
Appendix K4-2: Operational Age 9 Mathematics. .....  .5
Appendix K4-3: Summary of Changes Operational Age 13 Mathematics .....  8
Appendix K4-4: Operational Age 13 Mathematics. ..... 11
Appendix K4-5: Summary of Changes Operational Age 17 Mathematics ..... 14
Appendix K4-6: Operational Age 17 Mathematics. ..... 18
Appendix K4-7: Summary of Changes Operational Age 9 Reading. ..... 22
Appendix K4-8: Operational Age 9 Reading ..... 25
Appendix K4-9: Summary of Changes Operational Age 13 Reading. ..... 28
Appendix K4-10: Operational Age 13 Reading ..... 31
Appendix K4-11: Summary of Changes Operational Age 17 Reading. ..... 34
Appendix K4-12: Operational Age 17 Reading ..... 37


## Appendix K4-1: Summary of Changes Operational Age 9 Mathematics

| 2019/2020 Operational Age 9 Long Term-Trend Mathematics Student |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Previous item |  |  |  | 2019/2020 LTT item | $\begin{aligned} & \text { D/RV/ } \\ & \text { NC } \end{aligned}$ | Rationale |
| 3. Are you Hispanic or Latino? Select one or more answer choices. <br> (4) No, I am not Hispanic or Latino. <br> (1) Yes, I am Mexican, Mexican American, or Chicano. <br> © Yes, I am Puerto Rican or Puerto Rican American. <br> (1) Yes, I am Cuban or Cuban American. <br> (1) Yes, I am from some other Hispanic or Latino background. <br> (2019 Grade 4, 8, and 12; Appendix F p. 10 \#6) |  |  |  | 1. Are you Hispanic or Latino? Fill in one or more ovals. <br> (4) No, I am not Hispanic or Latino. <br> (8) Yes, I am Mexican, Mexican American, or Chicano. <br> © Yes, I am Puerto Rican or Puerto Rican American. <br> (1) Yes, I am Cuban or Cuban American. <br> (1) Yes, I am from some other Hispanic or Latino background. <br> 2. Which of the following best describes you? Fill in one or more ovals. <br> (A) White <br> (B) Black or African American <br> © Asian <br> (1) American Indian or Alaska Native <br> (®) Native Hawaiian or other Pacific Islander | NC | N/A |
| 4. Which of the following best describes you? Select one or more answer choices. <br> (8) White <br> (1) Black or African American <br> © Asian <br> (1) American Indian or Alaska Native <br> (1) Native Hawaiian or other Pacific Islander <br> (2019 Grade 4, 8, and 12; Appendix F p. 10 \#7) |  |  |  |  | NC | N/A |
| 5. About how many books are there in your home? <br> (4) Few $(0-10)$ <br> (1) Enough to fill one shelf (11-25) <br> © Enough to fill one bookcase (26-100) <br> (1) Enough to fill several bookcases (more than 100) <br> (2019 Grade 4, 8, and 12; Appendix F p. 10 \#8) |  |  |  | 5. About how many books are there in your home? <br> (4) Few (0-10) <br> (8) Enough to fill one shelf (11-25) <br> © Enough to fill one bookcase (26-100) <br> (1) Enough to fill several bookcases (more than 100) | NC | N/A |
| 6. Do you have any of the following in your home S Select one a aswer choice on eachrow. nmund |  |  |  | 6. Is there a computer at home that you use? <br> (4) Yes <br> (8) No | RV | This item was revised and incorporate d into a matrix item (sub-item "c") for 2019 operational |
|  | Yes | No |  |  |  |  |
| 2. Acess to the Internet | $\stackrel{\square}{\square}$ | $\oplus$ | mos |  |  |  |
|  | $\stackrel{\odot}{\odot}$ |  | numaze |  |  |  |
| d. A tablet (for example, Surface Pro, iPad, Kindle Fire) that you can use |  |  |  |  |  |  |
| (2019 Grade 4, 8, and 12; Appendix F p. 11 \#9) |  |  |  |  |  |  |
| 6. About how many pages have to read in school homework? 5 or fewer 6-10 11-15 16-20 More than 20 <br> (2015 Grade 4, 8, and |  |  | \#6 ) | 8. About how many pages a day do you have to read in school and for homework? 5 or fewer 6-10 11-15 16-20 More than 20 | NC | N/A |


| 2019/2020 Operational Age 9 Long Term-Trend Mathematics Student |  |  |  |
| :---: | :---: | :---: | :---: |
| Previous item | 2019/2020 LTT item | D/RV/ NC | Rationale |
| Alternate version (for VH811369) <br> About how many hours a day do you spend on your English/language arts homework? <br> A. Less than 30 minutes a day <br> B. 30 minutes up to 1 hour a day <br> C. 1 up to 2 hours a day <br> D. 2 up to 3 hours a day <br> E. 3 up to 4 hours a day <br> F. More than 4 hours a day <br> (2018 Grade 4, 8, and 12 Appendix F p. 179 alternate version for VH811369) | 9. How much time did you spend on homework yesterday? <br> (A) No homework was assigned. <br> (8) I had homework but didn't do it. <br> © Less than 1 hour <br> (1) 1 to 2 hours <br> (c) More than 2 hours | RV | An alternate version to this LTT item was tested in cognitive lab in Writing. |
| 9. How often do you talk about things you have studied in school with someone in your family? <br> (4) Never or hardly ever <br> (1) Once every few weeks <br> © About once a week <br> (1) Two or three times a week <br> (1) Every day <br> (2019 Grade 4, 8, and 12; Appendix F p. 12 \#12) | 10. How often do you talk about things yo have studied in school with someone ir your family? <br> (A) Never or hardly ever <br> (8) Once every few weeks <br> © About once a week <br> (1) Two or three times a week <br> (E) Every day | NC | N/A |
| 8. How many days were you absent from school in the last month? <br> (8) None <br> (1) 1 or 2 days <br> © 3 or 4 days <br> (1) 5 to 10 days <br> (1) More than 10 days <br> (2019 Grade 4, 8, and 12; Appendix F p. 24 \#11) | 11. How many days were you absent from school in the last month? <br> (A) None <br> (B) 1 or 2 days <br> © 3 or 4 days <br> (1) 5 to 10 days <br> (E) More than 10 days | NC | N/A |
| 9. How often do people in your home talk to each other in a language other than English? Never Once in a while About half of the time All or most of the time <br> (2015 Grade 4, 8, and 12; Appendix F p. 377 \#9) | 13. How often do people in your home tal to each other in a language other than English? <br> (A) Never <br> (B) Once in a while <br> (c) About half of the time <br> (D) All or most of the time | NC | N/A |

NOTE: This column indicates whether the item was dropped (D), added (A), revised version (RV), or there was no change (NC).

## Appendix K4-2: Operational Age 9 Mathematics

1. Are you Hispanic or Latino? Fill in one or more ovals.

A No, I am not Hispanic or Latino.
B Yes, I am Mexican, Mexican American, or Chicano.
C Yes, I am Puerto Rican or Puerto Rican American.
D Yes, I am Cuban or Cuban American.
E Yes, I am from some other Hispanic or Latino background.
2. Which of the following best describes you? Fill in one or more ovals.

A White
B Black or African American
C Asian
D American Indian or Alaska Native
E Native Hawaiian or other Pacific Islander
3. About how many books are there in your home?

A Few (0-10)
B Enough to fill one shelf (11-25)
C Enough to fill one bookcase (26-100)
D Enough to fill several bookcases (more than 100)
4. Is there a computer at home that you use?

A Yes
B No
5. About how many pages a day do you have to read in school and for homework?

A 5 or fewer
B $6-10$
C $11-15$
D 16-20
E More than 20
6. How much time did you spend on homework yesterday?

A No homework was assigned.
B I had homework but didn't do it.
C Less than 1 hour
D 1 to 2 hours
E More than 2 hours
7. How often do you talk about things you have studied in school with someone in your family?

A Never or hardly ever
B Once every few weeks
C About once a week
D Two or three times a week
E Every day
8. How many days were you absent from school in the last month?

A None
B 1 or 2 days
C 3 or 4 days
D 5 to 10 days
E More than 10 days
9. How often do people in your home talk to each other in a language other than English?

A Never
B Once in a while
C About half of the time
D All or most of the time

## Appendix K4-3: Summary of Changes Operational Age 13 Mathematics



| 2019/2020 Operational Age 13 Long-Term Trend Mathematics Student |  |  |  |
| :---: | :---: | :---: | :---: |
| Previous item | 2019/2020 LTT item | $\begin{array}{\|l} \hline \mathrm{D} / \\ \mathrm{RV} / \mathrm{N} \\ \mathrm{C} \\ \hline \end{array}$ | Rationale |
| (2015 Grade 4, 8, and 12; Appendix F p. 380 \#6) |  |  |  |
| Altemate ersion (for V48111399) | 9. How much time did you spend on homework yesterday? | RV | An alternate |
| About how many yours day do vouspend on your feniblib/arguse ats homework? |  |  |  |
| B. 30 minutes upto 1 hour day $^{\text {a }}$ | (8) No homework was assigned. |  | version to |
| C. 11.1 pto h haurs day | (1) I had homework but didn't do it. |  | this LTT |
|  |  |  | item was |
|  | © Less than 1 hour |  | tested in |
|  | (8) 1 to 2 hours |  | cognitive |
| (2018 Grade 4, 8, and 12; Appendix F p. 193 alternate | (8) More than 2 hours |  | lab in |
| version for VH811369) |  |  | Writing. |
| 9. How often do you talk about things you have studied in school with someone in your family? | 10. How often do you talk about things you have studied in school with someone in your family? | NC | N/A |
|  |  |  |  |
| (1) Nevere or hardy ever |  |  |  |
| © Once every few weks | (4) Never or hardly ever |  |  |
| © Two or three times wek | (8) Once every few weeks |  |  |
| © Every dy | © About once a week |  |  |
| (2019 Grade 4, 8, and 12; Appendix F p. 25 \#12) | (1) Two or three times a week |  |  |
|  | (ㄹ) Every day |  |  |
| How many days were you absent from school in the last month? | 11. How many days were you absent from school in the last month? | NC | N/A |
|  |  |  |  |
| © 1 or 2 days | (4) None |  |  |
| © 3 or 4 day |  |  |  |
| (1) 5 to 10 days | (8) 1 or 2 days |  |  |
| © More than 10 days | © 3 or 4 days |  |  |
| (2019 Grade 4, 8, and 12; Appendix F p. 24 \#11) | (1) 5 to 10 days |  |  |
|  | () More than 10 days |  |  |
| 10. How far in school did your mother go? <br> (d) She did not finish high school. <br> (1) She graduated from high school. <br> © She had some education after high school. <br> (1) She graduated from college. <br> (1) I don't know. <br> (2019 Grade 8 and 12; Appendix F p. 25 \#13) | 13. How far in school did your mother va? | NC | N/A |
|  | (4) She did not finish high school. |  |  |
|  |  |  |  |
|  | (1) She graduated from high school. |  |  |
|  | © She had some education after high |  |  |
|  | school. |  |  |
|  | (8) She graduated from college. |  |  |
|  | (1) I don't know. |  |  |
|  | 14. How far in school did your father vo? | NC | N/A |
| © He did not tinish high school. | (4) He did not finish high school. |  |  |
| © He graduated from high school. |  |  |  |
| - He had some education after high school. | (1) He graduated from high school. |  |  |
| (1) He graduated from college. | © He had some education after high |  |  |
| (2019 Grade 8 and 12; Appendix F p. 25 \#14) | $\begin{aligned} & \text { He had } \\ & \text { school. } \end{aligned}$ |  |  |
|  | (1) He graduated from college. |  |  |
|  | © I don't know. |  |  |


| 2019/2020 Operational Age 13 Long-Term Trend Mathematics Student |  |  |  |
| :---: | :---: | :---: | :---: |
| Previous item | 2019/2020 LTT item | D/ <br> RV/N <br> C | Rationale |
| 9. How often do people in your home talk to each other in a language other than English? <br> (4) Never <br> (1) Once in a while <br> © About half of the time <br> (1) All or most of the time <br> (2015 Grade 4, 8, and 12; Appendix F p. 381 \#11) | 15. How often do people in your home talk to each other in a language other than English? <br> (A) Never <br> (B) Once in a while <br> © About half of the time <br> (D) All or most of the time | NC | N/A |
| 22. What math class are you taking this year? Select one or more answer choices. <br> (4) Eighth-grade math <br> (B) General eighth-grade math <br> © Algebra I course <br> (1) First year of a two-year algebra course <br> (1) Second year of a two-year algebra course <br> (1) Algebra I (one-year course) <br> (6) Algebra II <br> (1) Geometry <br> (1) Other <br> (2019 Grade 8; Appendix F p. 103 \#25) | 16. What kind of mathematics are you taking this year? <br> (A) I am not taking mathematics this year. <br> (B) Regular mathematics <br> © Pre-algebra <br> (1) Algebra <br> (5) Other | RV | This item was revised for 2019 operational |

NOTE: This column indicates whether the item was dropped (D), added (A), revised version (RV), or there was no change (NC).

## Appendix K4-4: Operational Age 13 Mathematics

1. Are you Hispanic or Latino? Fill in one or more ovals.

A No, I am not Hispanic or Latino.
B Yes, I am Mexican, Mexican American, or Chicano.
C Yes, I am Puerto Rican or Puerto Rican American.
D Yes, I am Cuban or Cuban American.
E Yes, I am from some other Hispanic or Latino background.

## VB331331

2. Which of the following best describes you? Fill in one or more ovals.

A White
B Black or African American
C Asian
D American Indian or Alaska Native
E $\quad$ Native Hawaiian or other Pacific Islander
3. About how many books are there in your home?

A Few (0-10)
B Enough to fill one shelf (11-25)
C Enough to fill one bookcase (26-100)
D Enough to fill several bookcases (more than 100)
4. Is there a computer at home that you use?

A Yes
B No
5. About how many pages a day do you have to read in school and for homework?

A 5 or fewer
B $\quad 6-10$
C $11-15$
D $\quad 16-20$
E More than 20
6. How much time did you spend on homework yesterday?

A No homework was assigned.
B I had homework but didn't do it.
C Less than 1 hour
D 1 to 2 hours
E More than 2 hours
7. How often do you talk about things you have studied in school with someone in your family?

A Never or hardly ever
B Once every few weeks
C About once a week
D Two or three times a week
E Every day
8. How many days were you absent from school in the last month?

A None
B 1 or 2 days
C 3 or 4 days
D 5 to 10 days
E More than 10 days
9. How far in school did your mother go?

A She did not finish high school.
B She graduated from high school.
C She had some education after high school.
D She graduated from college.
E I don't know.
10. How far in school did your father go?

A He did not finish high school.
B He graduated from high school.
C He had some education after high school.
D He graduated from college.
E I don’t know.
11. How often do people in your home talk to each other in a language other than English?

A Never
B Once in a while
C About half of the time
D All or most of the time
12. What kind of mathematics are you taking this year?

A I am not taking mathematics this year.
B Regular mathematics
C Pre-algebra
D Algebra
E Other

## Appendix K4-5: Summary of Changes Operational Age 17 Mathematics

| 2019/2020 Operational Age 17 Long-Term Trend Mathematics Student |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Previous item |  |  | 2019/2020 LTT item | ${ }_{\text {D/ }}^{\text {dV/Nc }}$ | Rationale |
| 3. Are you Hispanic or Latino? Select one or more answer choices <br> (2) No, I am not Hispanic or Latino. <br> (1) Yes, I am Mexican, Mexican American, or Chicano. <br> © Yes, I am Puerto Rican or Puerto Rican American. <br> (1) Yes, I am Cuban or Cuban American. <br> (1) Yes, I am from some other Hispanic or Latino background. |  |  | 1. Are you Hispanic or Latino? Fill in one or more ovals. <br> (A) No, I am not Hispanic or Latino. <br> (8) Yes, I am Mexican, Mexican American, or Chicano. <br> © Yes, I am Puerto Rican or Puerto Rican American. <br> (1) Yes, I am Cuban or Cuban American. <br> (®) Yes, I am from some other Hispanic or Latino background | NC | N/A |
| 4. Which of the following best describes you? Select one or more answer choices. <br> (4) White <br> (1) Black or African American <br> © Asian <br> (1) American Indian or Alaska Native <br> (1) Native Hawaiian or other Pacific Islander |  |  | 2. Which of the following best describes you? Fill in one or more ovals. <br> (A) White <br> (B) Black or African American <br> © Asian <br> (D) American Indian or Alaska Native <br> (®) Native Hawaiian or other Pacific Islander | NC | N/A |
| 5. About how many books are there in your home? <br> (d) Few $(0-10)$ <br> (1) Enough to fill one shelf (11-25) <br> © Enough to fill one bookcase (26-100) <br> (1) Enough to fill several bookcases (more than 100) |  |  | 5. About how many books are there in <br> your home? <br> (A) Few (0-10) <br> (B) Enough to fill one shelf (11-25) <br> (c) Enough to fill one bookcase (26-100) <br> (D) Enough to fill several bookcases (more than 100) | NC | N/A |
|  |  |  | 6. Is there a computer at home that | RV | This item |
|  | $\mathrm{V}_{6}$ | 。 | you use? |  | was |
| ${ }^{2}$ | : | 。 | (1) Yes |  | revised |
| ${ }^{\text {a }}$ |  | $\stackrel{ }{\circ}$ |  |  | $\begin{aligned} & \text { and } \\ & \text { incorpor } \end{aligned}$ |
|  |  | $\stackrel{\odot}{\circ}$ |  |  | ated into |
| (2019 Grade 4, 8, and 12; Appendix F p. 37 <br> \#8) |  |  |  |  | a matrix |
|  |  |  |  |  | item <br> (sub- <br> item "c") <br> for 2019 <br> operatio <br> nal. |


| 2019/2020 Operational Age 17 Long-Term Trend Mathematics Student |  |  |  |
| :---: | :---: | :---: | :---: |
| Previous item | 2019/2020 LTT item | D/ <br> RV/NC | Rationale |
| 6. About how many pages a day do you have to read in school and for homework? 5 or fewer 6-10 11-15 16-20 More than 20 <br> (2015 Grade 4, 8, and 12; Appendix F p. 384 \# 6) | 8. About how many pages a day do you have to read in school and for homework? <br> (A) 5 or fewer <br> (B) $6-10$ <br> (c) 11-15 <br> (D) 16-20 <br> (5) More than 20 | NC | N/A |
| Alemate verion (for V4811369) |  | RV |  |
| About how many hours a day do you spend on your English/language arts homework? <br> A. Less than 30 minutes a day <br> B. 30 minutes up to 1 hour a day <br> C. 1 up to 2 hours a day <br> D. 2 up to 3 hours a day <br> E. 3 up to 4 hours a day <br> F. More than 4 hours a day | homework yesterday? <br> (4) No homework was assigned. <br> (8) I had homework but didn't do it. |  | alternate <br> version <br> to this <br> LTT item |
| (2018 Grade 4, 8, and 12; Appendix F p. 228 alternate version for VH811369) | (6) More than 2 hours |  | cognitive lab in Writing. |
| 9. How often do you talk about things you have studied in school with someone in your family? <br> (4) Never or hardly ever <br> (1) Once every few weeks <br> Q About once a week <br> (1) Two or three times a week <br> (D) Every day <br> (2019 Grade 4, 8, and 12; Appendix F p. 39 <br> \#11) | 10. How often do you talk about things you have studied in school with someone in your family? <br> (A) Never or hardly ever <br> (B) Once every few weeks <br> © About once a week <br> (1) Two or three times a week <br> (E) Every day | NC | N/A |
| 8. How many days were you absent from school in the last month? <br> (1) None <br> (I) 1 or 2 days <br> © 3 or 4 days <br> (1) 5 to 10 days <br> (1) More than 10 days <br> (2019 Grade 4, 8, and 12; Appendix F p. 38 \#10) | 11. How many days were you absent from school in the last month? <br> (A) None 1 or 2 days 3 or 4 days 5 to 10 days More than 10 days | NC | N/A |
| 10. How far in school did your mother go? <br> (4) She did not finish high school. <br> (1) She graduated from high school. <br> © She had some education after high school. <br> (1) She graduated from college. <br> (1) I don't know. <br> (2019 Grade 8 and 12; Appendix F p. 39 \#12) | 13. How far in school did your mother go? <br> (A) She did not finish high school. <br> (B) She graduated from high school. <br> (c) She had some education after high school. <br> (D) She graduated from college. <br> (5) I don't know. | NC | N/A |


| 2019/2020 Operational Age 17 Long-Term Trend Mathematics Student |  |  |  |
| :---: | :---: | :---: | :---: |
| Previous item | 2019/2020 LTT item | D/ RV/NC | Rationale |
| 11. How far in school did your father go? <br> (2) He did not finish high school. <br> (1) He graduated from high school. <br> © He had some education after high school. <br> (1) He graduated from college. <br> (1) I don't know. <br> (2019 Grade 8 and 12; Appendix F p. 39 \#13) | 14. How far in school did your father go? <br> (4) He did not finish high school. <br> (8) He graduated from high school. <br> © He had some education after high school. <br> (2) He graduated from college. <br> (ㄹ) I don't know. | NC | N/A |
| VB331451 <br> 9. How often do people in your home talk to each other in a language other than English? Never Once in a while About half of the time All or most of the time <br> (2015 Grade 4, 8, and 12; Appendix F p. 385 \#11) | 15. How often do people in your home talk to each other in a language other than English? <br> (A) Never <br> (B) Once in a while <br> (c) About half of the time <br> (1) All or most of the time | NC | N/A |
| 23. Which of the following best describes your high school program? <br> (4) General <br> (B) Academic or college preparatory <br> © Vocational or technical <br> (2019 Grade 12; Appendix F p. 49 \#28) | 16. Which of the following best describes your high school program? <br> (4) General <br> (B) Academic or college preparatory <br> © Vocational or technical | NC | N/A |

## 2019/2020 Operational Age 17 Long-Term Trend Mathematics Student

| Previous it | tem |  |  |  |  |  |  | 2019/2020 LTT item |  | D/ <br> RV/NC | Rationale |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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. |  |  |  |  |  |  |  | Questions 17-23. Counting what you are taking now, have you ever take mathematics courses? Fill in only one oval on each line. |  | RV | This item was revised for 2019 operatio nal. |
|  |  | $\begin{gathered} \text { Itook this } \\ \text { course in } \\ \text { or beione } \\ \text { Grade } 8 . \end{gathered}$ | $\begin{gathered} \text { Itook this } \\ \text { course in } \\ \text { Grade } \% \text {. } \end{gathered}$ | $\begin{gathered} \text { I took this } \\ \text { course in } \\ \text { Grade i0. } \end{gathered}$ | $\begin{gathered} \text { Itook this } \\ \text { course in } \\ \text { Grade 11. } \end{gathered}$ | $\begin{array}{c\|c} \text { I took this } \\ \text { course in in } \\ \text { Girde } 12 \end{array}$ |  | 17. General, business, or consumer mathematics | taken (4) |  |  |
| a. Basic or general mathematics course | ${ }^{(1)}$ | © | $\bigcirc$ | © | $\odot$ | © | vizesa | 18. Pre-algebra or introduction to algebra | (1) |  |  |
| b. Tech-prep mathematics, business mathematics, consumer mathematics, or other applied mathematics course | © | © | $\bigcirc$ | $\odot$ | $\bigcirc$ | (1) | vinses | 19. First-year algebra <br> 20. Second-year algebra | (4) <br> (4) |  |  |
| c. Introduction to <br> algebbra or <br> prealgebra course | (1) | $\oplus$ | $\bigcirc$ | $\oplus$ | $\bigcirc$ | © | wrase | 21. Geometry | (4) |  |  |
| d. Algebra I course | © | (1) | $\bigcirc$ | $\stackrel{\square}{\circ}$ | ${ }^{\circ}$ | © | ${ }^{\text {ninasaz }}$ | 22. Trigonometry | (4) |  |  |
| e. Geometry course | ${ }^{\circ}$ | © | $\bigcirc$ | $\odot$ | $\oplus$ | © | wrowa |  |  |  |  |
| f. Algebra II course, <br> with or without <br> trigonometry | © | © | $\bigcirc$ | © | $\bigcirc$ | © | viness | 23. Pre-calculus or calculus | (4) |  |  |
| g. Trigonometry (as a separate course) | © | © | $\bigcirc$ | © | $\bigcirc$ | $\bigcirc$ | weness |  |  |  |  |
| h. Pre-calculus course (also called introductory analysis) | © | (1) | $\bigcirc$ | © | © | (1) | venas |  |  |  |  |
| i. Integrated <br> mathematics 1 <br> (iirst year of a <br> multi-year course) | © | © | $\bigcirc$ | © | $\odot$ | (1) | vizest |  |  |  |  |
| i. Integrated mathematics 2 (second year of a multi-year course) | © | © | $\bigcirc$ | © | $\bigcirc$ | © | wnese |  |  |  |  |
| k. Integrated <br> mathematics 3 <br> (third year of a <br> multi-year course) | $\oplus$ | © | $\bigcirc$ | © | $\odot$ | $\odot$ | veness |  |  |  |  |
| 1. Intertated <br> mathematics 4 <br> (fourth year of a <br> multityear course) | (1) | © | $\bigcirc$ | $\oplus$ | $\oplus$ | $\odot$ | nneas |  |  |  |  |
| m. Probability or statistics course | (1) | © | - | © | $\odot$ | (1) | visass |  |  |  |  |
| n. Calculus course | (1) | © | $\bigcirc$ | ¢ | $\oplus$ | © | vinase |  |  |  |  |
| o. Computer <br> programming <br> course Such as <br> C+t. Visual Basic. <br> etc.) | ${ }^{\oplus}$ | (1) | $\bigcirc$ | $\oplus$ | $\oplus$ | $\oplus$ | vibass |  |  |  |  |

NOTE: This column indicates whether the item was dropped (D), added (A), revised version (RV), or there was no change (NC).

## Appendix K4-6: Operational Age 17 Mathematics

1. Are you Hispanic or Latino? Fill in one or more ovals.

A No, I am not Hispanic or Latino.
B Yes, I am Mexican, Mexican American, or Chicano.
C Yes, I am Puerto Rican or Puerto Rican American.
D Yes, I am Cuban or Cuban American.
E Yes, I am from some other Hispanic or Latino background.

## VB331331

2. Which of the following best describes you? Fill in one or more ovals.

A White
B Black or African American
C Asian
D American Indian or Alaska Native
E $\quad$ Native Hawaiian or other Pacific Islander
3. About how many books are there in your home?

A Few (0-10)
B Enough to fill one shelf (11-25)
C Enough to fill one bookcase (26-100)
D Enough to fill several bookcases (more than 100)
4. Is there a computer at home that you use?

A Yes
B No
5. About how many pages a day do you have to read in school and for homework?

A 5 or fewer
B $\quad 6-10$
C $11-15$
D $16-20$
E More than 20
6. How much time did you spend on homework yesterday?

A No homework was assigned.
B I had homework but didn't do it.
C Less than 1 hour
D 1 to 2 hours
E More than 2 hours
7. How often do you talk about things you have studied in school with someone in your family?

A Never or hardly ever
B Once every few weeks
C About once a week
D Two or three times a week
E Every day
8. How many days were you absent from school in the last month?

A None
B 1 or 2 days
C 3 or 4 days
D 5 to 10 days
E More than 10 days
9. How far in school did your mother go?

A She did not finish high school.
B She graduated from high school.
C She had some education after high school.
D She graduated from college.
E I don't know.
10. How far in school did your father go?

A He did not finish high school.
B He graduated from high school.
C He had some education after high school.
D He graduated from college.
E I don’t know.
11. How often do people in your home talk to each other in a language other than English?

A Never
B Once in a while
C About half of the time
D All or most of the time
12. Which of the following best describes your high school program?

A General
B Academic or college preparatory
C Vocational or technical
13. Counting what you are taking now, have you ever taken any of the following mathematics courses? Fill in only one oval on each line.

|  | Have taken | Have not taken |  |
| :--- | :---: | :---: | :--- |
| a. General, business, or consumer mathematics | A | B | vC373212 |
| b. Pre-algebra or introduction to algebra | A | B | vC373213 |
| c. First-year algebra | A | B | vC373217 |
| d. Second-year algebra | A | B | vC373220 |
| e. Geometry | A | B | vC373221 |
| f. Trigonometry | A | B | vC373222 |
| g. Pre-calculus or calculus | A | B | vC373224 |

## Appendix K4-7: Summary of Changes Operational Age 9 Reading





NOTE: This column indicates whether the item was dropped (D), added (A), revised version (RV), or there was no change (NC).

## Appendix K4-8: Operational Age 9 Reading

1. Are you Hispanic or Latino? Fill in one or more ovals.

A No, I am not Hispanic or Latino.
B Yes, I am Mexican, Mexican American, or Chicano.
C Yes, I am Puerto Rican or Puerto Rican American.
D Yes, I am Cuban or Cuban American.
E Yes, I am from some other Hispanic or Latino background.
2. Which of the following best describes you? Fill in one or more ovals.

A White
B Black or African American
C Asian
D American Indian or Alaska Native
E Native Hawaiian or other Pacific Islander
3. About how many books are there in your home?

A Few (0-10)
B Enough to fill one shelf (11-25)
C Enough to fill one bookcase (26-100)
D Enough to fill several bookcases (more than 100)
4. Is there a computer at home that you use?

A Yes
B No
5. About how many pages a day do you have to read in school and for homework?

A 5 or fewer
B $6-10$
C $11-15$
D $\quad 16-20$
E More than 20
6. How much time did you spend on homework yesterday?

A No homework was assigned.
B I had homework but didn't do it.
C Less than 1 hour
D 1 to 2 hours
E More than 2 hours
7. How often do you talk about things you have studied in school with someone in your family?

A Never or hardly ever
B Once every few weeks
C About once a week
D Two or three times a week
E Every day
8. How many days were you absent from school in the last month?

A None
B $\quad 1$ or 2 days
C 3 or 4 days
D 5 to 10 days
E More than 10 days
9. How often do people in your home talk to each other in a language other than English?

A Never
B Once in a while
C About half of the time
D All or most of the time
10. How often do you do each of the following things?

|  | Almost every <br> day | Once or <br> twice a week | Once or <br> twice a <br> month | A few times a <br> year | Never or <br> hardly ever |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| a. Read for fun on your own <br> time. | A | B | C | D | E | VC375071 |
| b. Tell a friend about a good <br> book. | A | B | C | D | E | VC375073 |

## Appendix K4-9: Summary of Changes Operational Age 13 Reading



| 2019/2020 Operational Age 13 Long-Term Trend Reading Student |  |  |  |
| :---: | :---: | :---: | :---: |
| Previous item | 2019/2020 LTT item | D/ RV/NC | Rationale |
| 6. About how many pages a day do you have to read in school and for homework? 5 or fewer 6-10 11-15 16-20 More than 20 <br> (2015 Grade 4, 8, and 12; Appendix F p. 380 <br> \#6) | 8. About how many pages a day do you have to read in school and for homework? 5 or fewer 6-10 11-15 16-20 More than 20 | NC | N/A |
| Altemate ersion (for vi8111399) | wuch time did you spend on | RV |  |
|  | homework yesterday? <br> (4) No homework was assigned. <br> (8) I had homework but didn't do it. |  | alternate <br> version <br> to this <br> LTT item |
| (2018 Grade 4, 8, and 12; Appendix F p. 193 alternate version for VH811369) |  |  | cognitive lab in Writing. |
| 9. How often do you talk about things you have studied in school with someone in your family? <br> (4) Never or hardly ever <br> (1) Once every few weeks <br> - About once a week <br> (1) Two or three times a week <br> (1) Every day <br> (2019 Grade 4, 8, and 12; Appendix F p. 25 \#12) | 10. How often do you talk about things you have studied in school with someone in your family? <br> (A) Never or hardly ever <br> (B) Once every few weeks <br> (c) About once a week <br> (1) Two or three times a week <br> (ㄷ) Every day | NC | N/A |
| 8. How many days were you absent from school in the last month? <br> (4) None <br> (1) 1 or 2 days <br> © 3 or 4 days <br> (1) 5 to 10 days <br> (1) More than 10 days <br> (2019 Grade 4, 8, and 12; Appendix F p. 24 \#11) | 11. How many days were you absent from school in the last month? <br> (A) None <br> (B) 1 or 2 days <br> © 3 or 4 days <br> (D) 5 to 10 days <br> (®) More than 10 days | NC | N/A |
| 10. How far in school did your mother go? <br> (A) She did not finish high school. <br> (B) She graduated from high school. <br> (c) She had some education after high school. <br> (D) She graduated from college. <br> (E) I don't know. <br> (2018 Grade 8 and 12; Appendix F p. 25 \#13) | 13. How far in school did your mother go? <br> (A) She did not finish high school. <br> (B) She graduated from high school. <br> © She had some education after high school. <br> (D) She graduated from college. <br> (E) I don't know. | NC | N/A |


| 2019/2020 Operational Age 13 Long-Term Trend Reading Student |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Previous item |  |  |  |  |  | 2019/2020 LTT item |  |  |  | RV/NC | Rationale |
| 11. How far in school did your father go? <br> (A) He did not finish high school. <br> (B) He graduated from high school. <br> © He had some education after high school. <br> (1) He graduated from college. <br> (E) I don't know. <br> (2019 Grade 8 and 12; Appendix F p. 25 \#14) |  |  |  |  |  | 14. 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. |  |  |  | NC | N/A |
| 9. How often do people in your home talk to each other in a language other than English? <br> (4) Never <br> (B) Once in a while <br> © About half of the time <br> (1) All or most of the time <br> (2015 Grade 4, 8, and 12; Appendix F p. 381 <br> \#11) |  |  |  |  |  | 15. How often do people in your home talk o each other in a language other than English? <br> (A) Never <br> (B) Once in a while <br> (c) About half of the time <br> (D) All or most of the time |  |  |  | NC | N/A |
| 26. How much does each of the following statements describe you? Select one answer choice on each row. |  |  |  |  |  |  |  |  |  | RV | The 2019 |
|  | $\begin{array}{\|l\|} \hline \text { Not atall } \\ \hline \text { Like nie } \end{array}$ | $\begin{array}{\|c\|c\|c\|c\|c\|l\|l\|l\|l\|l\|l\|l\|} \substack{\text { Like nee }} \\ \hline \end{array}$ | $\begin{gathered} \text { Somewhat } \\ \text { like me } \end{gathered}$ |  |  |  |  |  |  |  | operation al version |
|  | - | - | $\bigcirc$ | - | $\bigcirc$ |  |  |  |  |  | of this |
| $\begin{aligned} & \text { b. I like talking about } \\ & \text { books with other } \\ & \text { people. } \end{aligned}$ | - | - | - | - | - ${ }^{-2 \times 4}$ |  |  |  |  |  | LTT item has |
|  | - | - | - | ${ }^{\circ}$ |  |  |  |  |  |  | revised |
|  | - | - | - |  | - ${ }^{\text {mamam }}$ |  |  |  |  |  | response |
| (2019 Grade 4, 8, and 12; Appendix F p. 72 \#10) |  |  |  |  |  |  |  |  |  |  | options <br> and sub- <br> item <br> wording. |

NOTE: This column indicates whether the item was dropped (D), added (A), revised version (RV), or there was no change (NC).

## Appendix K4-10: Operational Age 13 Reading

1. Are you Hispanic or Latino? Fill in one or more ovals.

A No, I am not Hispanic or Latino.
B Yes, I am Mexican, Mexican American, or Chicano.
C Yes, I am Puerto Rican or Puerto Rican American.
D Yes, I am Cuban or Cuban American.
E Yes, I am from some other Hispanic or Latino background.

## VB331331

2. Which of the following best describes you? Fill in one or more ovals.

A White
B Black or African American
C Asian
D American Indian or Alaska Native
E $\quad$ Native Hawaiian or other Pacific Islander
3. About how many books are there in your home?

A Few (0-10)
B Enough to fill one shelf (11-25)
C Enough to fill one bookcase (26-100)
D Enough to fill several bookcases (more than 100)
4. Is there a computer at home that you use?

A Yes
B No
5. About how many pages a day do you have to read in school and for homework?

A 5 or fewer
B $\quad 6-10$
C $11-15$
D $16-20$
E More than 20
6. How much time did you spend on homework yesterday?

A No homework was assigned.
B I had homework but didn't do it.
C Less than 1 hour
D $\quad 1$ to 2 hours
E More than 2 hours
7. How often do you talk about things you have studied in school with someone in your family?

A Never or hardly ever
B Once every few weeks
C About once a week
D Two or three times a week
E Every day
8. How many days were you absent from school in the last month?

A None
B 1 or 2 days
C 3 or 4 days
D 5 to 10 days
E More than 10 days
9. How far in school did your mother go?

A She did not finish high school.
B She graduated from high school.
C She had some education after high school.
D She graduated from college.
E I don't know.
10. How far in school did your father go?

A He did not finish high school.
B He graduated from high school.
C He had some education after high school.
D He graduated from college.
E I don't know.
11. How often do people in your home talk to each other in a language other than English?

A Never
B Once in a while
C About half of the time
D All or most of the time
12. How often do you do each of the following things?

|  | Almost every <br> day | Once or <br> twice a week | Once or <br> twice a <br> month | A few times a <br> year | Never or <br> hardly ever |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| a. Read for fun on your own <br> time. | A | B | C | D | E | vC375071 |
| b. Tell a friend about a good <br> book. | A | B | C | D | E | vC375073 |

## Appendix K4-11: Summary of Changes Operational Age 17 Reading



| 2019/2020 Operational Age 17 Long-Term Trend Reading Student |  |  |  |
| :---: | :---: | :---: | :---: |
| Previous item | 2019/2020 LTT item | D/RV/ NC | Rationale |
| 6. About how many pages a day do you have to read in school and for homework? 5 or fewer 6-10 11-15 16-20 More than 20 <br> (2015 Grade 4, 8, and 12; Appendix F p. 384 \#6) | 8. About how many pages a day do you have to read in school and for homework? 5 or fewer 6-10 11-15 16-20 More than 20 | NC | N/A |
| Alternate version (for VH811369 $\qquad$ <br> (2018 Grade 4, 8, and 12; Appendix F p. 228 alternate version for VH811369) | 9. How much time did you spend on homework yesterday? <br> (4) No homework was assigned. <br> (8) I had homework but didn't do it. <br> © Less than 1 hour <br> (c) 1 to 2 hours <br> (E) More than 2 hours | RV | An alternate version to this LTT item was tested in cognitive lab in Writing. |
| 9. How often do you talk about things you have studied in school with someone in your family? <br> (1) Never or hardly ever <br> (1) Once every few weeks <br> - About once a week <br> (1) Two or three times a week <br> (1) Every day <br> (2019 Grade 4, 8, and 12; Appendix F p. 39 \#11) | 10. How often do you talk about things you have studied in school with someone in your family? <br> (4) Never or hardly ever <br> (B) Once every few weeks <br> © About once a week <br> (1) Two or three times a week <br> (®) Every day | NC | N/A |
| 8. How many days were you absent from school in the last month? <br> (4) None <br> (1) 1 or 2 days <br> © 3 or 4 days <br> (1) 5 to 10 days <br> (1) More than 10 days <br> (2019 Grade 4, 8, and 12; Appendix F p. 38 \#10) | 11. How many days were you absent from school in the last month? <br> (A) None 1 or 2 days 3 or 4 days 5 to 10 days More than 10 days | NC | N/A |
| 10. How far in school did your mother go? <br> (A) She did not finish high school. <br> (B) She graduated from high school. <br> (c) She had some education after high school. <br> (D) She graduated from college. <br> (E) I don't know. <br> (2018 Grade 8 and 12; Appendix F p. 39 \#12) | 13. How far in school did your mother go? <br> (4) She did not finish high school. <br> (8) She graduated from high school. <br> © She had some education after high school. <br> (1) She graduated from college. <br> (b) I don't know. | NC | N/A |


| 2019/2020 Operational Age 17 Long-Term Trend Reading Student |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Previous item |  |  |  |  |  |  | 2019/2020 LTT item |  |  |  | $\begin{aligned} & \text { D/RV/ } \\ & \text { NC } \end{aligned}$ | Rationale |
| 11. How far in school did your father go? <br> (A) He did not finish high school. <br> (B) He graduated from high school. <br> © He had some education after high school. <br> (1) He graduated from college. <br> (E) I don't know. <br> (2019 Grade 8 and 12; Appendix F p. 39 \#13) |  |  |  |  |  |  | 14. How far in school did your father go? <br> (4) He did not finish high school. <br> (B) He graduated from high school. <br> © He had some education after high school. <br> (D) He graduated from college. <br> (b) I don't know. |  |  |  | NC | N/A |
| 9. How often do people in your home talk to each other in a language other than English? <br> (4) Never <br> (1) Once in a while <br> © About half of the time <br> (1) All or most of the time <br> (2015 Grade 4, 8, and 12; Appendix F p. 385 \#11) |  |  |  |  |  |  | 15. How often do people in your home talk to each other in a language other than English? <br> (A) Never <br> (B) Once in a while <br> © About half of the time <br> (D) All or most of the time |  |  |  | NC | N/A |
| 23. Which of the following best describes your high school program? <br> (4) General <br> (B) Academic or college preparatory <br> (c) Vocational or technical <br> (2019 Grade 12; Appendix F p. 49 \#28) |  |  |  |  |  |  | 16. Which of the following best describes your high school program? <br> (A) General <br> (B) Academic or college preparatory <br> (c) Vocational or technical |  |  |  | NC | N/A |
| 26. How much does each of the following statements describe you? Select one answer choice on each row. |  |  |  |  |  |  | 17. How often do you do each of the following things? |  |  |  | RV | The 2019 |
|  | $\begin{aligned} & \text { Not at all } \\ & \text { ikike me } \end{aligned}$ |  | $\begin{array}{\|l\|l\|} \hline \text { somevinat } \\ \text { ilike me } \end{array}$ |  | $\begin{array}{\|c} \text { Exaxaly like like } \\ \text { me } \end{array}$ |  | $\begin{gathered}\text { Almost } \\ \text { every day }\end{gathered}$ | $\begin{gathered} \text { Once or } \\ \text { twice a } \\ \text { week } \end{gathered}$ | $\begin{aligned} & \text { Once or } \\ & \text { twice a } \\ & \text { month } \end{aligned}$ | $\begin{gathered} \text { Aleve } \\ \text { tinese } \\ \text { yaut } \end{gathered}$ |  | I version of |
| a. Reading is one ofmy | - | $\odot$ | $\bigcirc$ | - | © | Nome | a. Read for fun on your own time. © |  |  |  |  | this LTT |
| $\begin{array}{\|l\|l\|} \hline \text { b. lilike talking about } \\ \text { books with other } \\ \text { people. } \end{array}$ | - | $\oplus$ | - | - | - | \%exn | b. Tell a friend dbout a good book. © |  |  |  |  | item has |
| $\begin{array}{\|l\|l} \text { c. Ithink freding is } \\ \text { important. } \end{array}$ | - | ${ }^{\circ}$ | - | - | $\bullet$ |  |  |  |  |  |  | response |
| d. I enioy going to a <br> bookstore or a library. | ${ }^{\circ}$ | ${ }^{\bullet}$ | $\bigcirc$ | $\bullet$ | - | $1{ }^{\text {maman }}$ |  |  |  |  |  |  |
| (2019 Grade 4, 8, and 12; Appendix F p. 86 \#9) |  |  |  |  |  |  |  |  |  |  |  | and subitem wording. |

NOTE: This column indicates whether the item was dropped ( $D$ ), added (A), revised version (RV), or there was no change (NC).

## Appendix K4-12: Operational Age 17 Reading

1. Are you Hispanic or Latino? Fill in one or more ovals.

A No, I am not Hispanic or Latino.
B Yes, I am Mexican, Mexican American, or Chicano.
C Yes, I am Puerto Rican or Puerto Rican American.
D Yes, I am Cuban or Cuban American.
E Yes, I am from some other Hispanic or Latino background.

## VB331331

2. Which of the following best describes you? Fill in one or more ovals.

A White
B Black or African American
C Asian
D American Indian or Alaska Native
E $\quad$ Native Hawaiian or other Pacific Islander
3. About how many books are there in your home?

A Few (0-10)
B Enough to fill one shelf (11-25)
C Enough to fill one bookcase (26-100)
D Enough to fill several bookcases (more than 100)
4. Is there a computer at home that you use?

A Yes
B No
5. About how many pages a day do you have to read in school and for homework?

A 5 or fewer
B $\quad 6-10$
C $11-15$
D $16-20$
E More than 20
6. How much time did you spend on homework yesterday?

A No homework was assigned.
B I had homework but didn't do it.
C Less than 1 hour
D 1 to 2 hours
E More than 2 hours
7. How often do you talk about things you have studied in school with someone in your family?

A Never or hardly ever
B Once every few weeks
C About once a week
D Two or three times a week
E Every day
8. How many days were you absent from school in the last month?

A None
B 1 or 2 days
C 3 or 4 days
D 5 to 10 days
E More than 10 days
9. How far in school did your mother go?

A She did not finish high school.
B She graduated from high school.
C She had some education after high school.
D She graduated from college.
E I don't know.
10. How far in school did your father go?

A He did not finish high school.
B He graduated from high school.
C He had some education after high school.
D He graduated from college.
E I don't know.
11. How often do people in your home talk to each other in a language other than English?

A Never
B Once in a while
C About half of the time
D All or most of the time
12. Which of the following best describes your high school program?

A General
B Academic or college preparatory
C Vocational or technical
13. How often do you do each of the following things?

|  | Almost every <br> day | Once or <br> twice a week | Once or <br> twice a <br> month | A few times a <br> year | Never or <br> hardly ever |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| a. Read for fun on your own <br> time. | A | B | C | D | E | vc375071 |
| b. Tell a friend about a good <br> book. | A | B | C | D | E | vc375073 |

