Evaluation of NASA's Science, Engineering, Mathematics, and **Aerospace Academy**

Parent Survey

Instructions for Completing and Returning the Parent and Student Surveys

Step 1: Read and sign the Parent Consent and Permission Form
Step 2: Read the Child Assent Form to your child and answer your child's questions.

Please do not complete this Parent Survey until you have read and signed the Parent Consent and Permission Form. Please do not allow your child to complete the Student Survey until you have read the Child Assent form with your child and are sure that he or she understands it.

Step 3: Complete the Parent Survey. Step 4: Ask your child to complete the Student Survey. If your child does not understand an item on the Student Survey, you may explain the question to your child. However, please try not to tell your child how to answer the questions on the Student Survey.
Step 5: After completing the Parent Survey: Put it in the manila envelope labeled "Parent Survey," wet the seal, and close the flap.
Step 6: After your child has completed the Student Survey: Have your child place the completed survey in the manila envelope labeled "Student Survey," wet the seal and close the flap.

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☐ Step 7: Place the following into the large pre-paid return envelope:

- o A signed copy of the Parent Consent and Permission Form:
- o A signed copy of the Child Assent Form
- o The two manila envelopes with completed surveys.
- ☐ Step 8: Drop the return envelope at any US Post Office or in any Postal Drop Box. Thank you!

Some items on this survey were adapted from the Modified Attitudes Towards Science Inventory, Weinburgh and Steele (2000) and the Math and Science Interest Survey, Hulett, Williams, Twitty, Turner, Salamo, and Hobson

(2004).

Parent Survey

Parent ID number: do not write in this box

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Please print <u>your</u> <u>own</u> first and last name here on this page.							
Parent's First I	Name:		Last Name:				
Please prin	nt your <u>child's</u> first and l	last na	ame here.				
Child's First N	Jame:		Last Name:				
What mon	th, date, and year was th	nis chi	ild born (date of birth))?			
Month:	Date: Year:		<u>(</u> e.g., January 1, 2000)				
Do you have SEMAA sess	other children in 4 th throug sion?	h 8 th gı	rades who are also applyi	ng for the Fall 2009			
□ YES □ N	NO (check one)						
If YES, pleas	se write the names and birth	idates (of these other children be	low:			
Child #2:	First Name:		Last Name:				
	Birth date: Month:	Date:_	Year:				
Child #3	First Name:		Last Name:				
	Birth date: Month:	Date:	Year:				

Please answer the questions on the following pages for the child whose name you have written <u>inside the box</u> above. This child should be enrolled in the 4th, 5th, 6th, 7th, or 8th grade for the 2009-2010 school year.

A. Bac	kground Infor	mation			
A1.	What is today's Today's date:		Date:	Year:	
	ons on this surving page.	vey ask about tl	he child whose n	ame you have li	isted inside the box on the
A2.	What is your c	hild's gender:	□Male	□Female	
A3.	What is your re	elationship to thi	is child?		
	☐ Mother/Step ☐ Father/Step ☐ Grandfather ☐ Grandmothe ☐ Other femal	father er		☐ Other male i☐ Female guardi☐ Male guardi☐ Other:	rdian an
A4.	What is your c	hild's grade in s	chool this year:		
	□4 th	□ 5 th	$\Box 6^{ ext{th}}$	$\Box 7^{ ext{th}}$	□8 th
A5.	How did you fi	ind out about the	e SEMAA progra	ım? Check all th	at apply.
	☐ Previous par ☐ Word of mo ☐ Radio			□ Newspaper a□ Newspaper a□ Web site or□ Brochure	article
			inds of sessions. when children a		ions held during the school year
A6.	Has your child □ Yes		SEMAA summe I'm not sure	er session?	
If NO,	please skip to Q	uestion A7.			
		·	nmer SEMAA so	essions has your	child ever participated in?
	2-4 sur5-7 sur8 sumr	mer session mmer sessions mmer sessions mer sessions Sure, please mal	ke your best gues	s.	

Please go to the next page.

A7.	Has your child previously attended the SEMAA program during a regular school year ? ☐ Yes ☐ No ☐ I'm not sure							
If NO,	please sl	kip to Question	A8.					
	A7a. If YES, how many SEMAA sessions, if any, <u>during the regular school year</u> , has your child ever participated in? Please do not include participation in SEMAA summer sessions.							
	 □ This year will be my child's first time in a school-year SEMAA session □ 1 school year SEMAA session before □ 2-4 school year SEMAA sessions before □ 5-7 school year SEMAA sessions before □ 8 school year SEMAA sessions before If you are Not Sure, please make your best guess. 							
	A7b. □ Kind		hich grade o		were in when the	A session before this year, y participated in the past. $\Box 7^{th}$		
This it	em will	only appear in	the post-test	survey.				
A	Family		Family Café	sessions are		v many times you attended a nts and are usually held at		
	If your child did not participate in SEMAA this year, please check "My child did not participate in SEMAA and then go to the next question.							
	My chi	ld did not partic	ipate in SEM	AA this yea	r			
	lld partic	ipated in SEMA	A this year.	This year, I	attended the follo	wing number of Family		
	0 session 1 session 2 session	on \square	3 sessions 4 sessions 5 sessions		6 sessions 7 sessions 8 sessions			

This item will appear in the pre-test survey only.

A8.	What are your reasons for supporting your child's application to the SEMAA program this year? Check all that apply.
	☐ My child attended SEMAA previously
	☐ My child's brother/sister had attended SEMAA previously
	☐ My child was excited about SEMAA
	☐ My child's brother/sister was excited about SEMAA
	☐ A friend of my child was excited about SEMAA
	☐ I was looking for a fun, hands-on program for my child
	☐ I was looking for something educational for my child
	☐ I wanted my child to have something to do on the weekend
	☐ My child does not like science or math
	☐ My child enjoys science or math
	☐ I wanted my child to do better in school in general
	☐ I wanted my child to do better in science/math in particular
	☐ My child is good at science/math
	☐ I wanted to build my child's confidence in science/math
	☐ Other (please specify):

B. Student's Interest in Science

The following statements are about you, your child and science. Please read each statement carefully. Use the following scale to show how much you agree or disagree with each statement.

If you STRONGLY DISAGREE:	1	2	3	4	
If you DISAGREE :	1	2	3	4	
If you AGREE :	1	2	(3)	4	
If you STRONGLY AGREE :	1	2	3	4	

It is important that you respond to *every statement*, and that you circle only one number that best describes how you feel about each statement.

	STATEMENTS	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE
B1.	Science is useful for solving problems of everyday life.	1	2	3	4
B2.	Science is something that my child enjoys very much.	1	2	3	4
B3.	My child likes to do some reading in science which was not assigned in school.	1	2	3	4
B4.	Science is easy for my child.	1	2	3	4
B5.	When my child hears the word "science," he/she has a feeling of dislike.	1	2	3	4
В6.	Most people should study some science.	1	2	3	4
B7.	Sometimes my child reads ahead in the science book he/she uses in school.	1	2	3	4
B8.	I don't think my child could do advanced science.	1	2	3	4
В9.	I think my child could do more difficult science work than what he/she does now.	1	2	3	4
B10.	Science is helpful in understanding today's world.	1	2	3	4
B11.	My child usually understands science when it is talked about in class at school.	1	2	3	4
B12.	No matter how hard he/she tries, my child cannot understand science.	1	2	3	4
B13.	My child feels tense when someone talks to him/her about science.	1	2	3	4
B14.	My child likes to understand the scientific explanation for things.	1	2	3	4

Here are more statements about you, your child and science. Please read each statement carefully and use the following scale to show how much you agree or disagree with each statement.

	STATEMENTS	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE
B15.	My child often thinks, "I cannot do this," when a science assignment seems hard.	1	2	3	4
B16.	When my child can't immediately solve a science problem, he/she sticks with it until a solution is reached.	1	2	3	4
B17.	Science is of great importance to a country's development.	1	2	3	4
B18.	It is important to know science in order to get a good job.	1	2	3	4
B19.	My child likes the challenge of science assignments.	1	2	3	4
B20.	It makes my child nervous to even think about doing science.	1	2	3	4
B21.	It scares my child to have to take a science class.	1	2	3	4
B22.	My child thinks it is important to understand the schoolwork he/she does in science.	1	2	3	4
B23.	My child has a good feeling toward science.	1	2	3	4
B24.	Science is one of my child's favorite subjects.	1	2	3	4
B25.	My child has a real desire to learn science.	1	2	3	4
B26.	My child does not do very well in science.	1	2	3	4
B27.	Sometimes my student wants to learn more about science than the teacher covers at school.	1	2	3	4

C. Out of school activities

[This item will appear on the pre-test only. The post-test version will substitute the words "over the past three months" in place of "over the summer."]

Below is a list of activities that you and your child may or may not have shared over the summer. For each activity, please tell us about how often you and your child have done that activity **together**, on average, **over the summer**.

Over the summer, how often did you and your child together:

		Not at all in the past 3 months	One time	About once a month	About twice a month	About once a week	More than once a week
C1.	Gone to a science museum or zoo						
C2.	Gone to a sports event						
C3.	Read a book or magazine about science that was not fiction						
C4.	Taken something apart or put something together						
C5.	Watched a science program on TV						
C6.	Watched a sports program on TV						
C7.	Watched a movie at home or at a theater						
C8.	Used the internet to look up science information						۵
C9.	Planned and cooked a meal						
C10.	Used a science kit or done a science project at home						
C11.	Used computers or technology to solve a problem						۵
C12.	Played a video game						۵
C13.	Read a science-fiction book						

Next, we'd like you to predict how often you think that you and your child might do these activities together over the next three months:

In the next 3 months, how often do you think that you and your child together will:

	ext 5 montals, now often do you time	Not at all in the past 3 months	One time	About once a month	About twice a month	About once a week	More than once a week
C14.	Go to a science museum or zoo						
C15.	Go to a sports event						
C16.	Read a book or magazine about science that is not fiction						
C17.	Take something apart or put something together						
C18.	Watch a science program on TV						
C19.	Watch a sports program on TV						
C20.	Watch a movie at home or at a theater						
C21.	Use the internet to look up science information						
C22.	Plan and cook a meal						
C23.	Use a science kit or do a science project at home						
C24.	Use computers or technology to solve a problem						
C25.	Play a video game						
C26.	Read a science-fiction book						

C27.	During the past three months, was your child participating in any of the following science or mathematics activities other than SEMAA ?
	 □ A science fair at school □ A science or mathematics club at school □ My child has had a science or mathematics tutor □ My child has been a science or mathematics tutor □ A science or math program not based at my child's school:
	(What is the name of this program:)
	(Who is the sponsor of this program:)
	☐ None of the above

D. Science and math in school

Please tell us how much you agree or disagree with the following two statements:

		STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE
D1.	I feel confident in my ability to help my child with his or her science coursework.				
D2.	I feel confident in my ability to help my child with his or her math coursework.				
D3. My child's end-of-year grade in science class last year was (select the option that best matches					

D3.	My child's end-of-year grade in science class last year was (select the option that best matches the grade your child received):					
	☐ Excellent	(some schools assign a letter grade A)				
	☐ Good	(some schools assign a letter grade B)				
	☐ Satisfactory	(some schools assign a letter grade C)				
	☐ Barely Passing	(some schools assign a letter grade D)				
	☐ Failing	(some schools assign a letter grade E or F)				
	☐ I don't know	(
	☐ Not applicable, m	ny child did not receive a science grade last year				
D4.	I believe my child's a	hility in science is				
D 1,	☐ Much higher than					
	9	_				
	☐ About average					
	☐ Somewhat lower than average					
	Much lower than					
D5.	I believe my child's a	bility in math is				
		☐ Much higher than average				
		☐ Somewhat higher than average				
	☐ About average					
	☐ Somewhat lower than average					
	☐ Much lower than	average				
D6.	My child's and of yo	ar grade in math class last year was (select the option that best matches the				
ъо.	grade your child rece					
	☐ Excellent	(some schools assign a letter grade A)				
	□ Good	(some schools assign a letter grade B)				
	□ Satisfactory	(some schools assign a letter grade C)				
	Barely Passing	(some schools assign a letter grade D)				
	□ Failing	(some schools assign a letter grade E or F)				
	☐ I don't know					
	☐ Not applicable, m	ny child did not receive a math grade last year				

E. Educational and Career Expectations

E1. When your child reaches high school, there may be classes that your child is required to take and other classes that your child is not required to take. Please indicate how much you agree or disagree with the following statement:

When my child reaches high school, I will advise my child to take the following classes, even if they are not required:

	COURSES	Strongly disagree	Disagree	Agree	Strongly agree
a.	Physics				
b.	Biology				
c.	Chemistry				
d.	Earth sciences/geology				
e.	Astronomy				
f.	Computer science				
g.	Anatomy & Physiology				
h.	Advanced Physics				
i.	Advanced Biology				
j.	Advanced Chemistry				
k.	Algebra				
I.	Geometry				
m.	Trigonometry				
n.	Calculus				
0.	Statistics				

E2. To what extent do you agree or disagree with each of the following statements:

		STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE
a.	When my child is an adult, he/she will need a good understanding of basic science .				
b.	When my child is an adult, he/she will need a good understanding of advanced science .				
c.	When my child is an adult, he/she will need a good understanding of basic mathematics .				
d.	When my child is an adult, he/she will need a good understanding of advanced mathematics.				

E3. If your child goes to college and has trouble deciding what to choose as a college major, how much encouragement would you give your child to earn a degree in:

	DEGREE	Not very strong encouragement	Some encouragement	Strong encouragement	Very Strong encouragement
a.	Physical science (e.g., physics, astronomy, earth sciences, geology)				
b.	Biology or chemistry				
c.	Computer science				
d.	Social science (e.g., economics, psychology, anthropology)				
e.	English, literature or a foreign language				
f.	History, political science, or geography				
g.	Engineering (e.g., civil, electrical, mechanical)				
h.	Mathematics				
i.	Art, music, or acting				
j.	Medicine, dentistry, or veterinary science				
k.	Business, accounting, or finance				
I.	Teaching				
m.	Law				

Section F. About you and your child

F1.	What is your child's ethnicity? ☐ Hispanic or Latino	
	☐ Not Hispanic or Latino	
F2.	What is your child's race? Mark one ☐ American Indian or Alaska Nativ ☐ Asian ☐ Native Hawaiian or other Pacific ☐ Black or African American ☐ White	e
F3.	What language or languages do you a English Spanish French Italian German	Arabic Chinese
F4.	What language or languages does you ☐ English ☐ Spanish ☐ French ☐ Italian ☐ German	r child use at school? Check all that apply: Russian Arabic Chinese Other. Specify:

F5.	What is the highest level of education that you have completed? What is the highest level of education that your child's other parent or caregiver has completed?				
	ı	G	•	Child's other	
			You	parent/caregiver	
	Some High School				
	High School (diploma or GED)				
	Some College or University				
	Community college degree (AA)				
	Bachelor's Degree (BA or BS)				
	Graduate Degree (Master's, PhD, M	D, JD, EdD)			
F6.	Please indicate if you, or another a		knows well,	is working in one	of the
	following areas (check all that app	ıy):	Anothor	dult me child lengue	
		I work in:		dult my child knows ell works in:	i
	Physical Sciences		WC		
	Biological or Chemical Sciences			ō	
	Computer Sciences				
	Engineering				
	Mathematics				
	Robotics			ā	
	Aeronautics or Aerospace				
	Science Education				
	Math Education				
	None of the Above				
	None of the Above	_		_	
7.5	D. J. C. MAGAO				
F7.	Do you currently work for NASA? ☐Yes ☐No				
F8.	Please indicate, to the best of your ki household in which your child prima		nual househo	old income for the	

☐ Under \$10,000 ☐ \$10,001 - \$25,000 ☐ \$25,001 - 40,000 ☐ \$40,001 - 55,000	□ \$55,001 − 70,000 □ \$70,001 − \$85,000 □ Over \$85,000 □ Choose not to answer	
Thank you for completing the survey!		