Families & Science Project

Sibling Questionnaire
(Longitudinal Study)
9th grade

Page	Measure
Section 1: Background	
2	Background (sibling)
Section 2: Science classes-	
6	Coursework- sibling
9	Motivation (math, biology, chemistry, physics)
13	People and Science
14	Support
16	Sibling Ability
Section 3: Family and Future	
17	Family involvement
18	Conversations
19	Thinking about the future
Section 4: After School and Grades	
21	After school activities
Section 5: Culture	
23	MACIS
25	ARSMA

INTERVIEWER: IF IT SAYS LOOK AT [LIST], SAY THE SCALE ONCE FOR THE PARTICIPANT. IF IT DOES NOT SAY LOOK AT [LIST], THERE IS NO SCALE FOR THE QUESTION.

Section 1: Background

Thank you so much for your participation, we greatly appreciate it. The following questions let us get to know who you and your family are a little bit better. Please answer the following questions about yourself to the best of your ability. First, I am going to ask some questions about you.

You:

1. How old are you (*in years*)? ☐

2. What is your gender?

- **O** Female
- **O** Male

3. Were you born in the U.S.?

- **O** Yes
- **O** No → *IF NO:* Where were you born?
  - **O** Mexico
  - **O** Somewhere else (*please specify the country*): ☐

How old were you when you moved to the United States *(in years)?* ☐

4. Look at **List #1**. Now I'm going to ask you some questions about language use.

	Only Spanish	**Spanish more than English**	**Both equally**	**English more than Spanish**	**Only English**
4a. In general, what language do you read and speak?	①	②	③	④	⑤
4b. What language do you usually speak at home?	①	②	③	④	⑤
4c. In what language do you usually think?	①	②	③	④	⑤
4d. What language do you usually speak with your friends?	①	②	③	④	⑤

5. In this country, people come from many different backgrounds or ethnic groups. Please look at **List #2**. To what racial or ethnic group do you belong? You can select as many that apply.

IF NECESSARY: Ethnicity generally refers to where your parents or family are from.

① Latino/Hispanic *IF YES*, country or group?: ☐

② Black/African American

③ White (Not Hispanic)

④ Native American

⑤ Asian *IF YES*, what country or group?: ☐

⑥ Other *IF YES*, what country or group?: ☐

6. Are you in high school?

IF YES: What grade are you currently in?	① 10th ② 11th ③ 12th
IF NO: Please look at **List #3**. How much school have you completed?	① Less than high school ② Some high school ③ High school degree ④ Some college ⑤ College degree ⑥ Graduate degree or training beyond a BA/BS

7. Do you work?

O No (*SKIP TO QUESTION 10)*

O Yes → *IF YES*, what do you do?

8. What days of the week do you usually work? *(BUBBLE ALL THAT APPLY)*

Mon	Tues	Weds	Thurs	Fri	Sat	Sun
O	**O**	**O**	**O**	**O**	**O**	**O**

9. How many hours a week do you typically work?

0-5 hrs	6-10 hrs	11-20 hrs	21-30 hrs	31-40 hrs	over 40 hrs
O	**O**	**O**	**O**	**O**	**O**

10. We are interested in science careers and jobs. Do you know anyone with a science career or job? This can be someone in your family, a friend of the family, or an adult you know.

PROBE FOR: (A) relationship to the teen (NOT the person's name)

(B): person's career, or description if not sure or unclear

NOTE: if a parent has a science career and is recorded in jobs, don't record it here

Person's relation to teen	**Person's science career/job**
1.	
2.	
3.	
4.	
5.	
6.	

Section 2: Science Classes

IF PARTICIPANT DID NOT ATTEND HIGH SCHOOL, THEN SKIP TO QUESTION 6.

First we are going to ask about you. Then we will ask about [TEENAGER].

Coursework

1. How many years did you take science classes in high school?

⓪	①	②	③	④

IF TOOK ZERO YEARS SKIP TO QUESTION 3

2. Did you take [SUBJECT] in high school?

IF YES: Was it an honors or AP (advanced placement) class?

	No	Yes	Honors or AP?	
a. Biology	⓪	①	Ⓝ	Ⓨ
b. Chemistry	⓪	①	Ⓝ	Ⓨ
c. Physics	⓪	①	Ⓝ	Ⓨ
d. Anatomy or Physiology	⓪	①	Ⓝ	Ⓨ
e. Environmental Science	⓪	①	Ⓝ	Ⓨ
f. Other (*please specify*):	⓪	①	Ⓝ	Ⓨ
g. Other (*please specify*):	⓪	①	Ⓝ	Ⓨ

IF PARTICIPANT IS NOT CURRENTLY IN COLLEGE, OR HAS NOT TAKEN COLLEGE CLASSES, GO TO QUESTION 7

3. Did you take [SUBJECT] in college?

IF YES: How many semesters or years did you take?

	Did not take	**1 semester**	**1 year**	**2+ years**
a. Biology	⓪	①	③	③
b. Chemistry	⓪	①	③	③
c. Physics	⓪	①	③	③
d. Anatomy or Physiology	⓪	①	③	③
e. Environmental Science	⓪	①	③	③
f. Other (*please specify*):	⓪	①	③	③
g. Other (*please specify*):	⓪	①	③	③

4. What college (do/did) you attend? *(List all if they went to multiple schools)*

5. What (is/was) your major in college? *(List all. Indicate what was their graduating major)*

6. What job would you most like to have when you are done with your schooling (*WRITE IN THE JOB, PLEASE BE SPECIFIC ABOUT THE JOB IS*)?

Motivation

7. The next set of questions ask you to report on what you think about [TEENAGER] in math, biology, chemistry, and physics. First, I'd like to talk for a few minutes about [TEENAGER] and **math**. **Look at list #4.** You'll see that there is a lot under **List #4.** The list will change for each question. I'll tell you which letter to look at.

a. How good is [TEENAGER] at math?	Not at all good			Somewhat good			Very good
	①	②	③	④	⑤	⑥	⑦
b. How good would [TEENAGER] be at learning something new in math?	Not very good			Somewhat good			Very good
	①	②	③	④	⑤	⑥	⑦
c. Compared to other 9th graders, how much ability or talent does [TEENAGER] have in math?	No talent or ability			Some talent or ability			A lot of talent or ability
	①	②	③	④	⑤	⑥	⑦
d. How important is it to you that [TEENAGER] does well in math?	Not important			Somewhat important			Very important
	①	②	③	④	⑤	⑥	⑦
e. Compared to other subjects, how useful is learning math?	Not at all useful			Somewhat useful			Very useful
	①	②	③	④	⑤	⑥	⑦
f. How useful do you think math skills will be to [TEENAGER] in the future?	Not at all useful						Very useful
	①	②	③	④	⑤	⑥	⑦

8. *BIOLOGY.*

I'd like to talk for a few minutes about **biology**. **Look at list #4 again.** Biology includes topics like animals, plants, the environment, or the human body.

a. How good is [TEENAGER] at biology?	Not at all good			Somewhat good			Very good
	①	②	③	④	⑤	⑥	⑦
b. How good would [TEENAGER] be at learning something new in biology?	Not very good			Somewhat good			Very good
	①	②	③	④	⑤	⑥	⑦
c. Compared to other 9th graders, how much ability or talent does [TEENAGER] have in biology?	No talent or ability			Some talent or ability			A lot of talent or ability
	①	②	③	④	⑤	⑥	⑦
d. How important is it to you that [TEENAGER] does well in biology?	Not important			Somewhat important			Very important
	①	②	③	④	⑤	⑥	⑦
e. Compared to other subjects, how useful is learning biology?	Not at all useful			Somewhat useful			Very useful
	①	②	③	④	⑤	⑥	⑦
f. How useful do you think biology skills will be to [TEENAGER] in the future?	Not at all useful						Very useful
	①	②	③	④	⑤	⑥	⑦

9. *CHEMISTRY*

I'd like to talk for a few minutes about **chemistry**. **Continue looking at List #4.** Chemistry refers to topics like the structure of matter, like atoms and molecules, chemical reactions, the periodic table, and more.

a. How good is [TEENAGER] at chemistry?	Not at all good	①	②	③	Somewhat good ④	⑤	⑥	Very good ⑦
b. How good would [TEENAGER] be at learning something new in chemistry?	Not very good	①	②	③	Somewhat good ④	⑤	⑥	Very good ⑦
c. Compared to other 9th graders, how much ability or talent does [TEENAGER] have in chemistry?	No talent or ability	①	②	③	Some talent or ability ④	⑤	⑥	A lot of talent or ability ⑦
d. How important is it to you that [TEENAGER] does well in chemistry?	Not important	①	②	③	Somewhat important ④	⑤	⑥	Very important ⑦
e. Compared to other subjects, how useful is learning chemistry?	Not at all useful	①	②	③	Somewhat useful ④	⑤	⑥	Very useful ⑦
f. How useful do you think chemistry skills will be to [TEENAGER] in the future?	Not at all useful	①	②	③	④	⑤	⑥	Very useful ⑦

10. *PHYSICS*

Lastly, I'd like to talk for a few more minutes about **physics**. **Take a look at List #4 one last time.** Physics refers to topics like forces of gravity and friction, the motion of objects, electricity, magnetism, and more.

a. How good is [TEENAGER] at physics?	Not at all good			Somewhat good			Very good
	①	②	③	④	⑤	⑥	⑦
b. How good would [TEENAGER] be at learning something new in physics?	Not very good			Somewhat good			Very good
	①	②	③	④	⑤	⑥	⑦
c. Compared to other 9th graders, how much ability or talent does [TEENAGER] have in physics?	No talent or ability			Some talent or ability			A lot of talent or ability
	①	②	③	④	⑤	⑥	⑦
d. How important is it to you that [TEENAGER] does well in physics?	Not important			Somewhat important			Very important
	①	②	③	④	⑤	⑥	⑦
e. Compared to other subjects, how useful is learning physics?	Not at all useful			Somewhat useful			Very useful
	①	②	③	④	⑤	⑥	⑦
f. How useful do you think physics skills will be to [TEENAGER] in the future?	Not at all useful						Very useful
	①	②	③	④	⑤	⑥	⑦

People and Science

11. Some people think science is interesting and some people do not. Think about your family members. Look at **List #5** and tell me the number that best matches your answer.

[TEEN]'S ___ thinks that science is…	**Very boring**			**Neither boring nor interesting**		**Very interesting**	**NA**
a. Mom	①	②	③	④	⑤		⑧
b. Dad	①	②	③	④	⑤		⑧
c. Younger siblings	①	②	③	④	⑤		⑧
d. Older siblings	①	②	③	④	⑤		⑧
e. Aunts or Uncles	①	②	③	④	⑤		⑧
f. Cousins	①	②	③	④	⑤		⑧
g. You think that science is…..	①	②	③	④	⑤		⑧

12. Some people know a lot about science and some people do not. Think about your family members. Look at **List #6** and tell me the number that best matches your answer

[TEEN]'S_____ knows a lot about science…	**Not True**			**Sort of True**		**Very True**	**N/A**
a. Mom	①	②	③	④	⑤		⑧
b. Dad	①	②	③	④	⑤		⑧
c. Younger siblings	①	②	③	④	⑤		⑧
d. Older siblings	①	②	③	④	⑤		⑧
e. Aunts or Uncles	①	②	③	④	⑤		⑧
f. Cousins	①	②	③	④	⑤		⑧
g. You know a lot about science	①	②	③	④	⑤		⑧

Support

13. Families try to help teens with science in many different ways. We are interested in how you help [TEENAGER]. Listed below are some methods siblings may use to help their siblings with science school work. Use **List #7** to tell us how often, if ever, you do each thing.

How often do you…	Never	A little	Sometimes	A lot	Always
a. Buy science supplies, like equipment, books, games, or things to help study.	①	②	③	④	⑤
b. Help enroll [TEENAGER] in science lessons, workshops, or tutoring programs outside of class.	①	②	③	④	⑤
c. Tell [TEENAGER] that (he/she) is good at science.	①	②	③	④	⑤
d. Talk to [TEENAGER] about how things are going in (his/her) science classes.	①	②	③	④	⑤
e. Give [TEENAGER] rewards for good performance in science.	①	②	③	④	⑤
f. Make sure [TEENAGER] has a space or time to work on science homework.	①	②	③	④	⑤
g. Pressure [TEENAGER] to do well in science.	①	②	③	④	⑤
h. Encourage [TEENAGER] to work with friends or family members who are good at science.	①	②	③	④	⑤
i. Talk about college majors and careers in science.	①	②	③	④	⑤
j. Tell [TEENAGER] how important doing well in science will be for (his/her) future.	①	②	③	④	⑤
k. Check or ask if [TEENAGER]'s science homework is complete.	①	②	③	④	⑤
l. Help [TEENAGER] do (his/her) science work.	①	②	③	④	⑤

How often do you…	Never	A little	Sometimes	A lot	Always
m. Take [TEENAGER] to a science museum, zoo, or event.	①	②	③	④	⑤
n. Watch science television shows with [TEENAGER]. *(please specify)*	①	②	③	④	⑤
o. Look at science websites with [TEENAGER]. *(please specify)*	①	②	③	④	⑤
p. Talk about news or current events related to science.	①	②	③	④	⑤
q. Praise [TEENAGER] for (his/her) school work in science.	①	②	③	④	⑤
r. Help [TEENAGER] feel better when science is hard.	①	②	③	④	⑤
s. Like how [TEENAGER] does things in science.	①	②	③	④	⑤
t. Say nice things about [TEENAGER]'s grades in science.	①	②	③	④	⑤
u. Like [TEENAGER]'s study habits in science.	①	②	③	④	⑤
v. Teach [TEENAGER] about things (he/she) needs to know.	①	②	③	④	⑤
w. Teach [TEENAGER] about things (he/she) wants to know in science.	①	②	③	④	⑤

Sibling Ability

15. Siblings usually feel that they have the skills and information necessary to help their siblings improve in some areas more than other areas. Look at **List #8**. How confident do you feel you can help [TEENAGER] in each of the following classes?

	Not at all confident						**Very confident**
a. Math	①	②	③	④	⑤	⑥	⑦
b. Biology	①	②	③	④	⑤	⑥	⑦
c. Chemistry	①	②	③	④	⑤	⑥	⑦
d. Physics	①	②	③	④	⑤	⑥	⑦
e. History	①	②	③	④	⑤	⑥	⑦
f. English	①	②	③	④	⑤	⑥	⑦

16. Please look at **List #9:** In general, how much influence do you have over [TEENAGER]'s performance in each of the following classes?

	Very little influence						**A great deal of influence**
a. Math	①	②	③	④	⑤	⑥	⑦
b. Biology	①	②	③	④	⑤	⑥	⑦
c. Chemistry	①	②	③	④	⑤	⑥	⑦
d. Physics	①	②	③	④	⑤	⑥	⑦
g. History	①	②	③	④	⑤	⑥	⑦
h. English	①	②	③	④	⑤	⑥	⑦

Section 3: Family and the Future

Family Involvement

We have a few more questions about your family. Please give me your best response. You are doing great! We have been talking about [TEENAGER]'s science classes. For the next section, think about [TEENAGER]'s school in general.

1. Refer to the scale under **List #7.** The following items list things some siblings know and some siblings do not know. How often do you know:

How often do you know…	**Never**	**A little**	**Some-times**	**A lot**	**Always**
a. Which courses your sibling has been taking this past term?	①	②	③	④	⑤
b. How well your sibling is performing in school?	①	②	③	④	⑤
c. How many credits your sibling has earned towards graduation?	①	②	③	④	⑤
d. What classes will help your sibling prepare for college?	①	②	③	④	⑤
e. Your sibling's teachers' names?	①	②	③	④	⑤
f. What your sibling needs to do to apply for college?	①	②	③	④	⑤

2. Did you ever have problems with any of the following when you were in high school? Look at **List #7**.

	Never	**A little**	**Some-times**	**A lot**	**Always**
a. Making yourself understood to <u>your</u> teachers	①	②	③	④	⑤
b. Understanding <u>your</u> teachers	①	②	③	④	⑤

Conversations

3. Look at **List #10.** How often during the past year have you talked with [TEEN] about…

FOR EACH ITEM FOLLOW UP: Who usually starts the conversation about…..

How often during the past year have you talked with your parent about… **Who usually starts a conversation about…**	How often during the past year have you talked with [TEEN] about:					Who usually starts a conversation about…				
	Never	**A little**	**Some-times**	**A lot**	**Always**	**Teen**		**Both**		**You**
a. Things (he/she) has studied in class	①	②	③	④	⑤	①	②	③	④	⑤
b. (His/her) science grades	①	②	③	④	⑤	①	②	③	④	⑤
c. (His/her) science school work (ex: homework help, project due date)	①	②	③	④	⑤	①	②	③	④	⑤
d. College or other schools after high school	①	②	③	④	⑤	①	②	③	④	⑤
e. Specific jobs (he/she) might apply for after high school	①	②	③	④	⑤	①	②	③	④	⑤
f. Importance of science	①	②	③	④	⑤	①	②	③	④	⑤
g. Selecting courses at school	①	②	③	④	⑤	①	②	③	④	⑤
h. School activities or events of particular interest to (him/her)	①	②	③	④	⑤	①	②	③	④	⑤
i. Taking the SAT and/or ACT	①	②	③	④	⑤	①	②	③	④	⑤

Thinking About Your Sibling's Future

4. The next set of questions asks about what you think will happen in the future. Using **List #11**, tell me how likely you think each of the following will be:

How likely do you think it will be…	**Very Unlikely**						**Very Likely**
a. [TEENAGER] will drop out of high school before (s/he) finishes	①	②	③	④	⑤	⑥	⑦
b. [TEENAGER] will go to work full time right after high school	①	②	③	④	⑤	⑥	⑦
c. [TEENAGER] will graduate from college (four year program)	①	②	③	④	⑤	⑥	⑦

5. What job does [TEENAGER] want to have when (s/he) is done with their schooling (*write the job and please be specific about what he/she would be doing*)?

	Very Unlikely						**Very Likely**
6. How likely is it that your sibling will be able to get this type of job? **Look at List #11.**	①	②	③	④	⑤	⑥	⑦

7. List two other jobs [TEENAGER] has considered doing:

8. Look at **List #12**. In thinking about the teenager in this study, how much schooling would you like this teenager to receive?

① 10th or 11th grade

② Graduate from high school

③ Post high school vocational or technical training

④ Some college

⑤ Graduate from a business college or a two year college with an associate's degree

⑥ Graduate from a 4 year college. *IF YES:* what would you like [TEENAGER] to major in?

⑦ Get a masters degree or a post-undergraduate credential, such as a teaching certificate. *IF YES*: what would you like [TEENAGER]'s degree to be?

⑧ Get a law degree, a Ph.D., or a medical doctor's degree *IF YES*: what would you like [TEENAGER]'s field of study to be?

9. We know that things don't always turn out exactly the way we'd like. How much schooling do you think this teenager will actually receive? Look at **List #12.**

① 10th or 11th grade

② Graduate from high school

③ Post high school vocational or technical training

④ Some college

⑤ Graduate from a business college or a two year college with an associate's degree

⑥ Graduate from a 4 year college.

⑦ Get a master's degree or a post-undergraduate credential, such as a teaching certificate.

⑧ Get a law degree, a Ph.D., or a medical doctor's degree

Section 4: After School Activities

Sibling's Activities

1. Teenagers do different things after school. Some teenagers participate in organized activities at their school. Organized activities are after school activities that meet at a regular time, have a leader, and a goal, like football, band, or a club.

IF SIBLING IS IN HIGH SCHOOL: ASK ABOUT THIS YEAR

IF SIBLING IS NOT IN HIGH SCHOOL: ASK ABOUT OVERALL

Referring to **the activity list for [TEEN'S SCHOOL]**, were you involved in any of the following activities at your school (this year/during high school)?

How many hours each week did you spend in [ACTIVITY]?

Are you still doing the activity?

My activities….	**1 hour or less**	**2-3 hours**	**4-6 hours**	**7-10 hours**	**11-15 hours**	**15+ hours**	**Still participating**
a.	①	②	③	④	⑤	⑥	Ⓨ Ⓝ
b.	①	②	③	④	⑤	⑥	Ⓨ Ⓝ
c.	①	②	③	④	⑤	⑥	Ⓨ Ⓝ
d.	①	②	③	④	⑤	⑥	Ⓨ Ⓝ

2. Did you do any activities like in your neighborhood or community?

O No *SKIP TO THE NEXT PAGE*

O Yes → *IF YES, PLEASE SPECIFY* ____

3. Think about what [TEENAGER] does after school. Is (he/she) in any organized activities?

IF YES: what activity?

[TEENAGER]'s activities….
a.
b.
c.
d.
e.

Section 5: Culture

Gender Roles and Familism subscales of the Mexican American Cultural Orientation Scale

1. The next statements are about what people may think or believe. Remember, there are no right or wrong answers. Take a look at **List #13** and tell me how much you believe that . . .

How much do you believe that…	Not at all	A little	Somewhat	Very much	Completely
a. Parents should teach their children that the family always comes first	①	②	③	④	⑤
b. Children should be taught that it is their duty to care for their parents when their parents get old	①	②	③	④	⑤
c. Children should always do things to make their parents happy.	①	②	③	④	⑤
d. Family provides a sense of security because they will always be there for you.	①	②	③	④	⑤
e. If a relative is having a hard time financially, one should help them out if possible	①	②	③	④	⑤
f. When it comes to important decisions, the family should ask for advice from close relatives.	①	②	③	④	⑤
g. It is always important to be united as a family.	①	②	③	④	⑤
h. A person should share their home with relatives if they need a place to stay.	①	②	③	④	⑤
i. It is important to have close relationships with aunts/uncles, grandparents, and cousins.	①	②	③	④	⑤
j. Older kids should take care of and be role models for their younger brothers and sisters	①	②	③	④	⑤

How much do you believe that…	Not at all	A little	Somewhat	Very much	Completely
k. Children should be taught to always be good because they represent the family.	①	②	③	④	⑤
l. Holidays and celebrations are important because the whole family comes together.	①	②	③	④	⑤
m. Parents should be willing to make great sacrifices to make sure their children have a better life.	①	②	③	④	⑤
n. A person should always think about their family when making important decisions.	①	②	③	④	⑤
o. It is important to work hard and do one's best as this work reflects on the family.	①	②	③	④	⑤
p. Men should earn most of the money for the family so women can stay home and take care of your children and the home.	①	②	③	④	⑤
q. Families need to watch over and protect teenage girls more than teenage boys.	①	②	③	④	⑤
r. It is important for the man to have more power in the family than the woman.	①	②	③	④	⑤
s. Mothers are the main people responsible for raising children.	①	②	③	④	⑤
t. A wife should always support her husband's decisions, even if she does not agree with him.	①	②	③	④	⑤

2. The next set of questions asks about your family and cultural background. Some of these questions use the term 'Anglos'. This means people of White, European American backgrounds who are not Hispanic/Latino. You might more commonly hear the term 'Whites' instead of 'Anglos'; both words mean the same thing. Think about the last 12 months as you answer these questions. We will use **List #14** now.

	Not at all	**Very little or not very often**	**Moderately**	**Much or very often**	**Extremely often or almost always**
a. I speak Spanish.	①	②	③	④	⑤
b. I speak English.	①	②	③	④	⑤
c. I enjoy speaking Spanish.	①	②	③	④	⑤
d. I associate with Anglos.	①	②	③	④	⑤
e. I enjoy watching TV in Spanish.	①	②	③	④	⑤
f. I enjoy watching movies in English.	①	②	③	④	⑤
g. I enjoy watching movies in Spanish.	①	②	③	④	⑤
h. I enjoy reading (e.g., books) in Spanish.	①	②	③	④	⑤
i. I write (e.g. letters) in English.	①	②	③	④	⑤
j. I think in English.	①	②	③	④	⑤
k. I think in Spanish.	①	②	③	④	⑤
l. My friends are of Anglo origin.	①	②	③	④	⑤