



# PRiSE:

## Persistence Research in Science & Engineering Survey of Students in Introductory College English

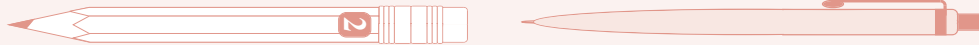
Researchers at the Harvard-Smithsonian Center for Astrophysics are interested in your experiences in learning science. By filling out this questionnaire you will help us find ways to improve science education for future students. Make your best estimate for each item and answer as many questions as possible. Thank you for your help.

**This survey should take between  
15 – 25 minutes to complete.**

**Confidentiality:** Your name and any other identifying information will NOT be included in any reports, published or unpublished, arising from this study. Your anonymity is guaranteed.

**Thank you for your time!**

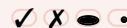
Use a No. 2 pencil or blue or black ink pen only.



**CORRECT MARK**



**INCORRECT MARKS**



Project PRiSE is funded by the National Science Foundation, grant number NSF 0624444.



## ABOUT YOUR CAREER PLAN DEVELOPMENT:

1. Which of the following BEST describes what you want(ed) to be in middle school, high school (beginning and end), and in college? Mark only ONE choice per column.

	Middle School (Choose one)	Beginning of High School (Choose one)	End of High School (Choose one)	In College (Choose one)
Medical professional (e.g., doctor, dentist, vet.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health professional (e.g., nursing, pharmacy)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biologist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Earth/Environmental scientist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Astronomer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chemist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physicist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engineer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer scientist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other scientist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mathematician	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Science teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Math teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social scientist (e.g., psychologist, sociologist)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lawyer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
English/Language Arts specialist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other non-science related career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Rate the following factors in terms of their importance for your future career satisfaction:

	Not at all important				Very important	
a. Making money	1	2	3	4	5	6
b. Becoming well known	1	2	3	4	5	6
c. Helping other people	1	2	3	4	5	6
d. Having others working under my supervision	1	2	3	4	5	6
e. Having job security	1	2	3	4	5	6
f. Working with people rather than objects	1	2	3	4	5	6
g. Inventing new things	1	2	3	4	5	6
h. Developing new knowledge and skills	1	2	3	4	5	6
i. Having lots of family time	1	2	3	4	5	6
j. Having lots of time for myself/friends	1	2	3	4	5	6
k. Making my own decisions	1	2	3	4	5	6
l. Having an easy job	1	2	3	4	5	6
m. Having an exciting job	1	2	3	4	5	6
n. Making use of my talents/abilities	1	2	3	4	5	6
o. Working in an area with lots job opportunities	1	2	3	4	5	6

## ABOUT YOUR MIDDLE SCHOOL SCIENCE EXPERIENCES:

3. What was your average grade in middle school science?

A+  A  A-  B+  B  B-  C+  C  C-  D  F

4. What was your average grade in middle school math?

A+  A  A-  B+  B  B-  C+  C  C-  D  F

5. In middle school, how confident were you about your abilities in

	Not confident at all					Extremely confident
Science	1	2	3	4	5	6
Mathematics	1	2	3	4	5	6

6. In middle school, how interested were you in

	Not interested at all					Extremely interested
Science	1	2	3	4	5	6
Mathematics	1	2	3	4	5	6

7. What type of school did you go to? Mark all that apply.

Private     Public Charter     Magnet School     Baccalaureate     All-male  
 Public     Private Religious     Vocational     Home Schooled     All-female

## ABOUT YOUR HIGH SCHOOL BACKGROUND:

8. To help us estimate the size of the community you come from, please provide your home ZIP Code and bubble in the corresponding numbers.

0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

9. What grade did you get in your last high school English course?

A+     A     A-     B+     B     B-     C+     C     C-     D     F

10. Which of the following math courses did you take in high school? *Mark all that apply.*

Algebra I     Algebra II     Pre-Calculus     Calculus     AP Calculus BC  
 Geometry     Integrated Math     Trig./Analytic Geometry     AP Calculus AB

11. For the most advanced math course you took what was your final grade?

A+     A     A-     B+     B     B-     C+     C     C-     D     F

12. For each of the following standardized tests, please indicate the score you earned on each subtest by marking the appropriate numbers.

SAT Score	SAT Exam			ACT Score	ACT Exam				
	Math Subtest	Writing Subtest	Critical Reading Subtest		Math Subtest	English Subtest	Science Reasoning	Reading Subtest	
200-300	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1-4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
310-400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5-8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
410-500	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9-12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
510-600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13-16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
610-700	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17-20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
710-800	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21-24	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25-28	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29-32	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33-36	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did not take SAT			<input type="checkbox"/>	Did not take ACT					<input type="checkbox"/>

13. For the high school science courses you took in biology, chemistry, and physics, please indicate the level of the course, in what high school year you took the course, what grade you earned, and the gender of the teacher. *Mark only ONE level, year, grade, and gender per row. Leave the row blank if you did not take the corresponding course.*

HS Course Subject	Course Level					Year Taken in HS	Final Grade	Teacher Gender
	Regular	Honors	AP	IB	Other Advanced			
1 <sup>st</sup> Biology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8 9 10 11 12	A+ A A- B+ B B- C+ C C- D F	(M) (F)
1 <sup>st</sup> Chem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8 9 10 11 12	A+ A A- B+ B B- C+ C C- D F	(M) (F)
1 <sup>st</sup> Physics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8 9 10 11 12	A+ A A- B+ B B- C+ C C- D F	(M) (F)
2 <sup>nd</sup> Biology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9 10 11 12	A+ A A- B+ B B- C+ C C- D F	(M) (F)
2 <sup>nd</sup> Chem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9 10 11 12	A+ A A- B+ B B- C+ C C- D F	(M) (F)
2 <sup>nd</sup> Physics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9 10 11 12	A+ A A- B+ B B- C+ C C- D F	(M) (F)
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9 10 11 12	A+ A A- B+ B B- C+ C C- D F	(M) (F)

14. For each of the AP exams you took, please indicate your test score.

	AP Test Score					
AP English Language & Composition	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> AP exam not taken
AP English Literature & Composition	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> AP exam not taken
AP Calculus AB	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> AP exam not taken
AP Calculus BC	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> AP exam not taken
AP Biology	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> AP exam not taken
AP Chemistry	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> AP exam not taken
AP Physics B	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> AP exam not taken
AP Physics C Mechanics	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> AP exam not taken
AP Physics C Electromagnetism	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> AP exam not taken



**ABOUT YOUR LAST BIOLOGY, CHEMISTRY, AND PHYSICS COURSES IN HIGH SCHOOL:**

15. What was required of you to learn the material in your last high school science courses?

Biology:	Very little memorization of facts	①	②	③	④	⑤	⑥	A lot of memorization of facts
	Very little conceptual understanding	①	②	③	④	⑤	⑥	A lot of conceptual understanding
Chemistry:	Very little memorization of facts	①	②	③	④	⑤	⑥	A lot of memorization of facts
	Very little conceptual understanding	①	②	③	④	⑤	⑥	A lot of conceptual understanding
Physics:	Very little memorization of facts	①	②	③	④	⑤	⑥	A lot of memorization of facts
	Very little conceptual understanding	①	②	③	④	⑤	⑥	A lot of conceptual understanding

16. How often did a lab directly address a belief or view you had about the world in your last high school science courses?

	Never					Almost every lab
Biology:	①	②	③	④	⑤	⑥
Chemistry:	①	②	③	④	⑤	⑥
Physics:	①	②	③	④	⑤	⑥

17. How large a role did a textbook play in your last high school science courses?

	Not used at all					Followed it closely
Biology:	①	②	③	④	⑤	⑥
Chemistry:	①	②	③	④	⑤	⑥
Physics:	①	②	③	④	⑤	⑥

18. How many MINUTES, on average, did you spend studying or doing work outside of class each day for your last high school science courses?

	0	5	10	15	30	45	60 or more
Biology:	○	○	○	○	○	○	○
Chemistry:	○	○	○	○	○	○	○
Physics:	○	○	○	○	○	○	○

19. Please indicate how often the following activities or events occurred:

		None	Very rarely	Once/month	2-3 times/month	Once/week	2-3 times/week	Every day
<b>Biology:</b>	The teacher lectured to the class	○	○	○	○	○	○	○
	Spent time doing individual work in class	○	○	○	○	○	○	○
	Tests or quizzes were given	○	○	○	○	○	○	○
	You taught your classmates	○	○	○	○	○	○	○
	Watched science videos	○	○	○	○	○	○	○
	Went on field trips	○	○	○	○	○	○	○
	Guest speakers visited your class	○	○	○	○	○	○	○
Did hands-on or lab work	○	○	○	○	○	○	○	
<b>Chemistry:</b>	The teacher lectured to the class	○	○	○	○	○	○	○
	Spent time doing individual work in class	○	○	○	○	○	○	○
	Tests or quizzes were given	○	○	○	○	○	○	○
	You taught your classmates	○	○	○	○	○	○	○
	Watched science videos	○	○	○	○	○	○	○
	Went on field trips	○	○	○	○	○	○	○
	Guest speakers visited your class	○	○	○	○	○	○	○
Did hands-on or lab work	○	○	○	○	○	○	○	
<b>Physics:</b>	The teacher lectured to the class	○	○	○	○	○	○	○
	Spent time doing individual work in class	○	○	○	○	○	○	○
	Tests or quizzes were given	○	○	○	○	○	○	○
	You taught your classmates	○	○	○	○	○	○	○
	Watched science videos	○	○	○	○	○	○	○
	Went on field trips	○	○	○	○	○	○	○
	Guest speakers visited your class	○	○	○	○	○	○	○
Did hands-on or lab work	○	○	○	○	○	○	○	

20a. What was the distribution of male and female students in your last high school science courses?

	All females	More females than males	About equal	More males than females	All males
Biology:	①	②	③	④	⑤
Chemistry:	①	②	③	④	⑤
Physics:	①	②	③	④	⑤



**20b. How frequently were all the members of your group during group or lab work the same sex as you?**

	Never					Almost always
	1	2	3	4	5	6
Biology:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chemistry:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physics:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**21. Please indicate how often the following occurred during your last high school science class:**

	None	Very rarely	Once/month	2-3 times/month	Once/week	2-3 times/week	Every class
<b>Biology:</b>	Whole class discussions were held	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Small group work was held	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Connected science to your everyday-life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Connected science to other disciplines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	You asked questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	You answered questions or made comments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Other students answered questions or made comments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Students were disrespectful to you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students were disrespectful to the teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<b>Chemistry:</b>	Whole class discussions were held	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Small group work was held	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Connected science to your everyday-life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Connected science to other disciplines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	You asked questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	You answered questions or made comments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Other students answered questions or made comments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Students were disrespectful to you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students were disrespectful to the teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<b>Physics:</b>	Whole class discussions were held	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Small group work was held	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Connected science to your everyday-life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Connected science to other disciplines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	You asked questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	You answered questions or made comments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Other students answered questions or made comments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Students were disrespectful to you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students were disrespectful to the teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

**22. Please indicate whether the following were discussed or occurred in your last high school science class:**

	Biology	Chemistry	Physics
Science career stages and options	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benefits of becoming a scientist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Under-representation of women in science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work of female scientists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Female scientist guest speakers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Currently relevant science topics (e.g., global warming)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ethics related to doing science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teacher's science-related personal experiences/stories	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**23. Please indicate the number of problems of each type you had to answer in class and for homework:**

	None	One/week	Two/week	1-2/Day	3-4/day	5-6/day	6+/day
<b>Biology</b>	Problems with: Long written explanations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Calculations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Chemistry</b>	Problems with: Long written explanations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Calculations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Physics</b>	Problems with: Long written explanations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Calculations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



24. Please indicate whether the following types of questions were typically included on your science tests or quizzes.

Problems that:	Biology tests	Chemistry tests	Physics tests
Required calculations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Could be solved without math	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drawn from homework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involved data analysis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Required long written responses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
About material covered on previous tests/quizzes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Required sketching or drawing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Required memorizations of terms or facts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Had multiple-choice/true-false format	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. Rate the quality of your last high school science teachers:

	Poor			Excellent		
	1	2	3	4	5	6
Biology Teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chemistry Teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physics Teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**ABOUT YOUR SCIENCE-RELATED INTERESTS/ATTITUDES:**

26. When was the earliest experience that you remember learning about or doing science?

- Pre-K    
  K–3<sup>rd</sup> grade    
  4–6<sup>th</sup> grade    
  7–8<sup>th</sup> grade    
  9–10<sup>th</sup> grade    
  11–12<sup>th</sup> grade

27. How do you characterize your earliest experience?

Strongly negative/discouraging | 1 — 2 — 3 — 4 | Strongly positive/encouraging

28. Which of the following applied to your experiences while growing up. *Mark all that apply.*

- Tinkered with mechanical devices (e.g., bicycle, car jack, pulleys, wheelbarrow, sewing machine)
- Tinkered with electrical devices (e.g., cars, batteries and bulbs, radio, TV)
- Watched animal behavior (e.g., bird making a nest)
- Observed or studied stars and other astronomical objects
- Planted seeds, watched plants grow
- Other science-related activity: \_\_\_\_\_

29. How often did you do the following activities outside of school?

	Never	Rarely	Few times a year	Monthly	Weekly	Daily
Participated in science groups/clubs/camps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participated in science/math competitions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engaged in personal science hobbies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Read/Watched <u>non-fiction</u> science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Read/Watched science fiction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Played computer/video games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Played sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

30. Please rate your general interest in the following:

	Not at all interested	1	2	3	4	5	Very interested
<b>HS biology course topics</b>							
Reproduction & development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evolution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ecology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Genetics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
History & people of biology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>HS chemistry course topics</b>							
Stoichiometry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organic chemistry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
History & people of chemisrty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>HS physics course topics</b>							
Mechanics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Optics/Waves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Electromagnetism	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relativity/Modern Physics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
History & people of physics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**31. Please rate your general interest in the following areas:**

	Not at all interested					Very interested
	1	2	3	4	5	6
Conducting your own experiments	1	2	3	4	5	6
Understanding natural phenomena	1	2	3	4	5	6
Understanding everyday-life science	1	2	3	4	5	6
Explaining things with facts	1	2	3	4	5	6
Using mathematics	1	2	3	4	5	6
Telling others about science concepts	1	2	3	4	5	6
Making scientific observations	1	2	3	4	5	6
Wanting to know more science	1	2	3	4	5	6
Graduating from college with honors	1	2	3	4	5	6

**32. Compared with other high school courses, please rate the difficulty of the following:**

	Much easier than other courses				Much harder than other courses	
	1	2	3	4	5	6
Last HS biology course	1	2	3	4	5	6
Last HS chemistry course	1	2	3	4	5	6
Last HS physics course	1	2	3	4	5	6

**33. Do the following people see you as a biology/chemistry/physics person?**

	No, not at all					Yes, very much	
	1	2	3	4	5	6	
<b>Biology Person</b>	Yourself	1	2	3	4	5	6
	Parents/Relatives/Friends	1	2	3	4	5	6
	Science teacher	1	2	3	4	5	6
<b>Chemistry Person</b>	Yourself	1	2	3	4	5	6
	Parents/Relatives/Friends	1	2	3	4	5	6
	Science teacher	1	2	3	4	5	6
<b>Physics Person</b>	Yourself	1	2	3	4	5	6
	Parents/Relatives/Friends	1	2	3	4	5	6
	Science teacher	1	2	3	4	5	6

**34. Do you want others to see you as a biology/chemistry/physics person?**

	No, not at all			Yes, very much		
	1	2	3	4	5	6
Biology Person	1	2	3	4	5	6
Chemistry Person	1	2	3	4	5	6
Physics Person	1	2	3	4	5	6

**35. In your opinion, what is the purpose of science?**

	Not at all important purpose				Extremely important purpose	
	1	2	3	4	5	6
<b>Science:</b>						
...helps solve social and practical problems	1	2	3	4	5	6
...helps us understand the basic structure of the world we live in	1	2	3	4	5	6
...provides intellectual excitement	1	2	3	4	5	6

**36. Please indicate which of the following statements best describe you. Mark all that apply.**

- I prefer to know just a few people well.
- I have a wide range of friends and know lots of people.
- I am seen as "outgoing" or as a "people person."
- I feel comfortable in groups and like working in them.
- I am seen as "reflective" or "reserved."
- I feel comfortable being alone and like things I can do on my own.

**37. Please rate your own personality in terms of introversion/extroversion:**

Very introverted | 1 — 2 — 3 — 4 — 5 — 6 | Very extroverted

**38. If a certain profession was dominated by people of the opposite gender to yourself, how would that influence the likelihood that you would enter that profession?**

- Strongly decreases likelihood
- Somewhat decreases likelihood
- No influence
- Somewhat increases likelihood
- Strongly increases likelihood

**39. Please rate the likelihood of your choosing a career in:**

	Not at all likely				Extremely likely	
	1	2	3	4	5	6
Life sciences	1	2	3	4	5	6
Physical sciences	1	2	3	4	5	6
Engineering/Technology	1	2	3	4	5	6
Mathematics	1	2	3	4	5	6

## ABOUT YOURSELF AND YOUR FAMILY:

40. Are you male or female?

- Male       Female

41. What is your race? (For multi-racial, mark all that apply.)

- White       Asian       American Indian or Alaskan Native  
 Black       Pacific Islander       Other: \_\_\_\_\_

42. Are you of Hispanic origin?

- Yes       No

43. Was English the primary spoken language in your household?

- Yes       No

44. What year are you in college?

- Freshman       Sophomore       Other

45. Was your home environment supportive of science, for example, did you often visit science museums, or zoos?

- Not supportive       Occasionally supportive       Moderately supportive       Generally supportive       Very Supportive

46. Who encouraged you to take science classes? Mark all that apply.

- No One       Mother/Female Guardian       Father/Male Guardian  
 Siblings       School Counselor       Science Teacher

47. What was the highest level of education for your parents/guardians?



48. Which category best fits you and your parents' or guardians' background?

	Born in United States		
You	<input type="radio"/> Yes	<input type="radio"/> No	
Male Parent or Guardian	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> n/a
Female Parent or Guardian	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> n/a

49. Which of the following statements best describes your family's interest in science? Mark all that apply.

- Science is involved in at least one parent's job.       Science was a diversion or hobby.  
 Science is a way for you to have a better career.       Science was not a family interest.  
 Science was a series of courses that I had to pass.

50. OPTIONAL: We may want to contact you to ask follow-up questions about your science-related experiences. All communications will be kept in the strictest confidence and your email will NOT be disclosed to any third party.

Your email address: \_\_\_\_\_

**You have reached the end of the survey.  
 Thank you very much for your time — it is our goal to have a  
 generation of science educators learn from your insights!**

PLEASE DO NOT MARK IN THIS AREA



**SERIAL #**

