2012 NATIONAL SURVEY OF SCIENCE AND MATHEMATICS EDUCATION
SCIENCE TEACHER QUESTIONNAIRE

Section A. Teacher Background and Opinions

1. How many years have you taught prior to this school year: [Enter each response as a whole number (for example: 15).]

a. any subject at the K–12 level? _____
b. science at the K–12 level? _____
c. at this school, any subject? _____

2. At what grade levels do you currently teach science? [Select all that apply.]

□	K–5
□	6–8
□	9–12
□	You do not currently teach science

3. ***[Presented to self-contained teachers only]***
Which best describes the science instruction provided to the entire class?

- Do not consider pull-out instruction that some students may receive for remediation or enrichment.
- Do not consider instruction provided to individual or small groups of students, for example by an English-language specialist, special educator, or teacher assistant.

○	This class receives science instruction ***only*** from you. ***[Presented only to teachers who answered in Q2 that they teach science]***
○	This class receives science instruction from you and another teacher (for example: a science specialist or a teacher you team with). ***[Presented only to teachers who answered in Q2 that they teach science]***

4. ***[Presented to self-contained teachers only]***
Which best describes your science teaching?

○	I teach science all or most days, every week of the year.
○	I teach science every week, but typically three or fewer days each week.
○	I teach science some weeks, but typically not every week. ***[Skip to Q6]***

5. ***[Presented to self-contained teachers only]***
In a typical week, how many days do you teach lessons on each of the following subjects and how many minutes per week are spent on each subject? [Enter each response as a whole number (for example: 5, 150).]

	Number of days per week	Total number of minutes per week
a. Mathematics		
b. Science		
c. Social Studies		
d. Reading/Language Arts		

6. ***[Presented to self-contained teachers only]***

In a typical year, how many weeks do you teach lessons on each of the following subjects and how many minutes per week are spent on each subject? [Enter each response as a whole number (for example: 36, 150).]

	Number of weeks per year	Average number of minutes per week when taught
a. Mathematics		
b. Science		
c. Social Studies		
d. Reading/Language Arts		

7. ***[Presented to non-self-contained teachers only]***

In a typical week, how many different classes of each of the following do you teach?

- If you meet with the *same class of students* multiple times per week, count that class only once.
- If you teach the *same science or engineering course* to multiple classes of students, count each class separately.
- Select one on each row.

	0	1	2	3	4	5	6	7	8	9	10
Science (may include some engineering content)	○	○	○	○	○	○	○	○	○	○	○
Engineering (may include some science content)	○	○	○	○	○	○	○	○	○	○	○

8. ***[Presented to non-self-contained teachers only]***

For each science class you teach, select the course type and enter the number of students enrolled. Enter the classes in the order that you teach them. For teachers on an alternating day block schedule, please order your classes starting with the first class you teach this week. [Select one course type on each row and enter the number of students as a whole number (for example: 25).]

Class	Course Type	Number of Students
Your 1st science class:		
Your 2nd science class:		
…		
Your Nth science class:		

Course Type List	
1	Science (Grades K–5)
2	Life Science (Grades 6–8)
3	Earth Science (Grades 6–8)
4	Physical Science (Grades 6–8)
5	General or Integrated Science (Grades 6–8)
6	Coordinated or Integrated Science including General Science and Physical Science (Grades 9–12)
7	Earth/Space Science (Grades 9–12)
8	Life Science/Biology (Grades 9–12)
9	Environmental Science/Ecology (Grades 9–12)
10	Chemistry (Grades 9–12)
11	Physics (Grades 9–12)

9. ***[Presented to non-self-contained grades 9–12 teachers only]***

For each grades 9–12 science class you teach, select the level that best describes the content addressed in that class.

- Use the descriptions below to help identify the level.
- Select one on each row.

Level	Description
Non-college Prep	A course that does not count towards the entrance requirements of a 4-year college. For example: Life Science.
1st Year College Prep, Including Honors	The first course in a discipline that counts towards the entrance requirements of a 4-year college. For example: Biology, Chemistry I.
2nd Year Advanced	A course typically taken after a 1st year college prep course. For example: Anatomy and Physiology, Advanced Chemistry, Physics II. Include Advanced Placement, International Baccalaureate, and concurrent college and high school credit/dual enrollment.

Class	Course Type	Non-college Prep	1st Year College Prep, Including Honors	2nd Year Advanced
Your 1st science class:	[*course type(s) teacher selected in Q8*]	○	○	○
Your 2nd science class:		○	○	○
…				
Your Nth science class:		○	○	○

10. ***[Presented to non-self-contained teachers only]***

Later in this questionnaire, we will ask you questions about your randomly selected science class, which you indicated was [*level and course type teacher selected in Q8/9*]. What is your school's title for this course? _____

11. Have you been awarded one or more bachelor's and/or graduate degrees in the following fields? (With regard to bachelor's degrees, count only areas in which you majored.) [Select one on each row.]

	Yes	No
a. Education, including science education	○	○
b. Natural Sciences and/or Engineering	○	○
c. Other, please specify _____	○	○

12. ***[Presented only to teachers that answered "Yes" to Q11a]***

What type of education degree do you have? (With regard to bachelor's degrees, count only areas in which you majored.) [Select all that apply.]

□	Elementary Education
□	Mathematics Education
□	Science Education
□	Other Education, please specify. _____

13. ***[Presented only to teachers that answered "Yes" to Q11b]***

What type of natural science and/or engineering degree do you have? (With regard to bachelor's degrees, count only areas in which you majored.) [Select all that apply.]

□	Biology/Life Science
□	Chemistry
□	Earth/Space Science
□	Engineering
□	Environmental Science/Ecology
□	Physics
□	Other natural science, please specify _____

14. Did you complete any of the following types of biology/life science courses at the undergraduate or graduate level? [Select one on each row.]

		Yes	**No**
a.	General/introductory biology/life science courses (for example: Biology I, Introduction to Biology)	○	○
b.	Biology/life science courses beyond the general/introductory level	○	○
c.	Biology/life science education courses	○	○

15. ***[Presented only to teachers that answered "Yes" to Q14b]***

Please indicate which of the following biology/life science courses you completed (beyond a general/introductory course) at the undergraduate or graduate level. [Select all that apply.]

□	Anatomy/Physiology
□	Biochemistry
□	Botany
□	Cell Biology
□	Ecology
□	Evolution
□	Genetics
□	Microbiology
□	Zoology
□	Other biology/life science beyond the general/introductory level

16. Did you complete any of the following types of chemistry courses at the undergraduate or graduate level? [Select one on each row.]

		Yes	**No**
a.	General/introductory chemistry courses (for example: Chemistry I, Introduction to Chemistry)	○	○
b.	Chemistry courses beyond the general/introductory level	○	○
c.	Chemistry education courses	○	○

17. ***[Presented only to teachers that answered "Yes" to Q16b]***
Please indicate which of the following chemistry courses you completed (beyond a general/introductory course) at the undergraduate or graduate level. [Select all that apply.]

□	Analytical Chemistry
□	Biochemistry
□	Inorganic Chemistry
□	Organic Chemistry
□	Physical Chemistry
□	Quantum Chemistry
□	Other chemistry beyond the general/introductory level

18. Did you complete any of the following types of physics courses at the undergraduate or graduate level? [Select one on each row.]

		Yes	No
a.	General/introductory physics courses (for example: Physics I, Introduction to Physics)	○	○
b.	Physics courses beyond the general/introductory level	○	○
c.	Physics education courses	○	○

19. ***[Presented only to teachers that answered "Yes" to Q18b]***
Please indicate which of the following physics courses you completed (beyond a general/introductory course) at the undergraduate or graduate level. [Select all that apply.]

□	Electricity and Magnetism
□	Heat and Thermodynamics
□	Mechanics
□	Modern or Quantum Physics
□	Nuclear Physics
□	Optics
□	Other physics beyond the general/introductory level

20. Did you complete any of the following types of Earth/space science courses at the undergraduate or graduate level? [Select one on each row.]

		Yes	No
a.	General/introductory Earth/space science courses (for example: Earth Science I, Introduction to Earth Science)	○	○
b.	Earth/space science courses beyond the general/introductory level	○	○
c.	Earth/space science education courses	○	○

21. ***[Presented only to teachers that answered "Yes" to Q20b]***
Please indicate which of the following Earth/space science courses you completed (beyond a general/introductory course) at the undergraduate or graduate level. [Select all that apply.]

□	Astronomy
□	Geology
□	Meteorology
□	Oceanography
□	Physical Geography
□	Other Earth/space science beyond the general/introductory level

22. Did you complete any of the following types of environmental science courses at the undergraduate or graduate level? [Select one on each row.]

	Yes	No
a. General/introductory environmental science courses (for example: Environmental Science I, Introduction to Environmental Science)	○	○
b. Environmental science courses beyond the general/introductory level	○	○
c. Environmental science education courses	○	○

23. ***[Presented only to teachers that answered "Yes" to Q22b]***
Please indicate which of the following environmental science courses you completed (beyond a general/introductory course) at the undergraduate or graduate level. [Select all that apply.]

□	Conservation Biology
□	Ecology
□	Forestry
□	Hydrology
□	Oceanography
□	Toxicology
□	Other environmental science beyond the general/introductory level

24. Did you complete one or more engineering courses at the undergraduate or graduate level?

○	Yes
○	No

25. ***[Presented only to teachers that answered "Yes" to Q24b]***
Please indicate which of the following types of engineering courses you completed at the undergraduate or graduate level. [Select all that apply.]

□	Aerospace Engineering
□	Bioengineering/Biomedical Engineering
□	Chemical Engineering
□	Civil Engineering
□	Computer Engineering
□	Electrical Engineering
□	Industrial/Manufacturing Engineering
□	Mechanical Engineering
□	Other types of engineering courses

26. For each of the following areas, indicate the number of semester and/or quarter courses you completed.

- Count *courses* **not** credit hours.
- Include courses taken at the graduate or undergraduate level, as well as courses for which you received college credit while you were in high school.
- Count each course taken in high school for college credit as a one semester college course.
- Count courses that lasted multiple semesters or quarters as multiple courses.
- If your transcripts are not available, provide your best estimates.
- Enter your responses as whole numbers (for example: 3). You may either enter 0 (zero) or leave the box empty wherever applicable.

	Number of SEMESTER college courses	Number of QUARTER college courses
a. Interdisciplinary science (a single course that addresses content across ***multiple*** science subjects, such as biology, chemistry, physics and/or Earth science)		
b. Biology/Life science		
c. Chemistry		
d. Physics		
e. Earth/Space science		
f. Environmental science		
g. Engineering		
h. Mathematics		

27. How many of the undergraduate and graduate level science courses you completed were taken at each of the following types of institutions? (Please do not include science education courses.) [Enter each response as a whole number (for example: 15).]

a. Two-year college, community college, and/or technical school _____
b. Four-year college and/or university _____

28. Which of the following best describes your teacher certification program?

○	An undergraduate program leading to a bachelor's degree and a teaching credential
○	A post-baccalaureate credentialing program (no master's degree awarded)
○	A master's program that also awarded a teaching credential
○	You did not have any formal teacher preparation

29. When did you **last participate** in professional development (sometimes called in-service education) focused on science or science teaching? (Include attendance at professional meetings, workshops, and conferences, as well as professional learning communities/lesson studies/teacher study groups. **Do not** include formal courses for which you received college credit or time you spent **providing** professional development for other teachers.)

○	In the last 3 years
○	4–6 years ago
○	7–10 years ago
○	More than 10 years ago
○	Never

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30. In the last 3 years have you… [Select one on each row.]

		Yes	No
a.	attended a workshop on science or science teaching?	○	○
b.	attended a national, state, or regional science teacher association meeting?	○	○
c.	participated in a professional learning community/lesson study/teacher study group focused on science or science teaching?	○	○

31. What is the **total** amount of time you have spent on professional development in science or science teaching **in the last 3 years**? (Include attendance at professional meetings, workshops, and conferences, as well as professional learning communities/lesson studies/teacher study groups. **Do not** include formal courses for which you received college credit or time you spent **providing** professional development for other teachers.)

○	Less than 6 hours
○	6–15 hours
○	16–35 hours
○	More than 35 hours

32. Thinking about all of your science-related professional development **in the last 3 years**, to what extent does each of the following describe your experiences? [Select one on each row.]

		Not at all		Somewhat		To a great extent
a.	You had opportunities to engage in science investigations.	①	②	③	④	⑤
b.	You had opportunities to examine classroom artifacts (for example: student work samples).	①	②	③	④	⑤
c.	You had opportunities to try out what you learned in your classroom ***and*** then talk about it as part of the professional development.	①	②	③	④	⑤
d.	You worked closely with other science teachers from your school.	①	②	③	④	⑤
e.	You worked closely with other science teachers who taught the same grade and/or subject whether or not they were from your school.	①	②	③	④	⑤
f.	The professional development was a waste of your time.	①	②	③	④	⑤

33. When did you last take a formal course for **college credit** in each of the following areas? Do not count courses for which you received only Continuing Education Units. [Select one on each row.]

		In the last 3 years	4 – 6 years ago	7 – 10 years ago	More than 10 years ago	Never
a.	Science	○	○	○	○	○
b.	How to teach science	○	○	○	○	○
c.	Student teaching in science	○	○	○	○	○
d.	Student teaching in other subjects	○	○	○	○	○

34. ***[Presented only to teachers that have participated in professional development in the last three years as indicated in Q29, OR took a course in "Science" or "How to teach science" in the last three years as indicated in q33a/b]***

Considering all the opportunities to learn about science or the teaching of science (professional development and coursework) **in the last 3 years**, how much was each of the following emphasized? [Select one on each row.]

	Not at all		**Somewhat**		**To a great extent**
a. Deepening your own science content knowledge	①	②	③	④	⑤
b. Learning about difficulties that students may have with particular science ideas and procedures	①	②	③	④	⑤
c. Finding out what students think or already know about the key science ideas prior to instruction on those ideas	①	②	③	④	⑤
d. Implementing the science textbook/module to be used in your classroom	①	②	③	④	⑤
e. Planning instruction so students at different levels of achievement can increase their understanding of the ideas targeted in each activity	①	②	③	④	⑤
f. Monitoring student understanding during science instruction	①	②	③	④	⑤
g. Providing enrichment experiences for gifted students	①	②	③	④	⑤
h. Providing alternative science learning experiences for students with special needs	①	②	③	④	⑤
i. Teaching science to English-language learners	①	②	③	④	⑤
j. Assessing student understanding at the conclusion of instruction on a topic	①	②	③	④	⑤

35. In the last 3 years have you… [Select one on each row.]

	Yes	**No**
a. received feedback about your science teaching from a mentor/coach **formally assigned** by the school or district/diocese?	○	○
b. served as a **formally-assigned** mentor/coach for science teaching? (Please do not include supervision of student teachers.)	○	○
c. supervised a student teacher in your classroom?	○	○
d. taught in-service workshops on science or science teaching?	○	○
e. led a professional learning community/lesson study/teacher study group focused on science or science teaching?	○	○

36. ***[Presented only to grades K–5 teachers; sub-items e, f, and g for self-contained teachers only]***

Many teachers feel better prepared to teach some subject areas than others. How well prepared do you feel to teach each of the following subjects **at the grade level(s) you teach**, whether or not they are currently included in your teaching responsibilities? [Select one on each row.]

	Not adequately prepared	**Somewhat prepared**	**Fairly well prepared**	**Very well prepared**
a. Life Science	①	②	③	④
b. Earth Science	①	②	③	④
c. Physical Science	①	②	③	④
d. Engineering	①	②	③	④
e. Mathematics	①	②	③	④
f. Reading/Language Arts	①	②	③	④
g. Social Studies	①	②	③	④

37. ***[Presented only to grades 6–12 teachers; non-self-contained teachers shown only topics related to their randomly selected class and engineering; self-contained teachers shown all topics]***
Within science many teachers feel better prepared to teach some topics than others. How well prepared do you feel to teach each of the following topics **at the grade level(s) you teach**, whether or not they are currently included in your teaching responsibilities? [Select one on each row.]

	Not adequately prepared	Somewhat prepared	Fairly well prepared	Very well prepared
a. Earth/Space Science				
i. Earth's features and physical processes	①	②	③	④
ii. The solar system and the universe	①	②	③	④
iii. Climate and weather	①	②	③	④
b. Biology/Life Science				
i. Cell biology	①	②	③	④
ii. Structures and functions of organisms	①	②	③	④
iii. Ecology/ecosystems	①	②	③	④
iv. Genetics	①	②	③	④
v. Evolution	①	②	③	④
c. Chemistry				
i. Atomic structure	①	②	③	④
ii. Chemical bonding, equations, nomenclature, and reactions	①	②	③	④
iii. Elements, compounds, and mixtures	①	②	③	④
iv. The Periodic Table	①	②	③	④
v. Properties of solutions	①	②	③	④
vi. States, classes, and properties of matter	①	②	③	④
d. Physics				
i. Forces and motion	①	②	③	④
ii. Energy transfers, transformations, and conservation	①	②	③	④
iii. Properties and behaviors of waves	①	②	③	④
iv. Electricity and magnetism	①	②	③	④
v. Modern physics (for example: special relativity)	①	②	③	④
e. Engineering (for example: nature of engineering and technology, design processes, analyzing and improving technological systems, interactions between technology and society)	①	②	③	④
f. Environmental and resource issues (for example: land and water use, energy resources and consumption, sources and impacts of pollution)	①	②	③	④

38. How well prepared do you feel to do each of the following in your science instruction? [Select one on each row.]

	Not adequately prepared	Somewhat prepared	Fairly well prepared	Very well prepared
a. Plan instruction so students at different levels of achievement can increase their understanding of the ideas targeted in each activity	①	②	③	④
b. Teach science to students who have learning disabilities	①	②	③	④
c. Teach science to students who have physical disabilities	①	②	③	④
d. Teach science to English-language learners	①	②	③	④
e. Provide enrichment experiences for gifted students	①	②	③	④
f. Encourage students' interest in science and/or engineering	①	②	③	④
g. Encourage participation of females in science and/or engineering	①	②	③	④
h. Encourage participation of racial or ethnic minorities in science and/or engineering	①	②	③	④
i. Encourage participation of students from low socioeconomic backgrounds in science and/or engineering	①	②	③	④
j. Manage classroom discipline	①	②	③	④

39. Please provide your opinion about each of the following statements. [Select one on each row.]

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
a. Students learn science best in classes with students of similar abilities.	①	②	③	④	⑤
b. Inadequacies in students' science background can be overcome by effective teaching.	①	②	③	④	⑤
c. It is better for science instruction to focus on ideas in depth, even if that means covering fewer topics.	①	②	③	④	⑤
d. Students should be provided with the purpose for a lesson as it begins.	①	②	③	④	⑤
e. At the beginning of instruction on a science idea, students should be provided with definitions for new scientific vocabulary that will be used.	①	②	③	④	⑤
f. Teachers should explain an idea to students before having them consider evidence that relates to the idea.	①	②	③	④	⑤
g. Most class periods should include some review of previously covered ideas and skills.	①	②	③	④	⑤
h. Most class periods should provide opportunities for students to share their thinking and reasoning.	①	②	③	④	⑤
i. Hands-on/laboratory activities should be used primarily to reinforce a science idea that the students have already learned.	①	②	③	④	⑤
j. Students should be assigned homework most days.	①	②	③	④	⑤
k. Most class periods should conclude with a summary of the key ideas addressed.	①	②	③	④	⑤

Section B. Your Science Instruction

The rest of this questionnaire is about your science instruction in this class.

40. ***[Presented to non-self-contained teachers only]***
On average, how many minutes per week does this class meet? [Enter your response as a whole number (for example: 300).] _____

41. Enter the number of students for each grade represented in this class. [Enter each response as a whole number (for example: 15).]

Kindergarten	
1st grade	
2nd grade	
3rd grade	
4th grade	
5th grade	
6th grade	
7th grade	
8th grade	
9th grade	
10th grade	
11th grade	
12th grade	

42. For the students in this class, indicate the number of males and females in this class in each of the following categories of race/ethnicity. [Enter each response as a whole number (for example: 15).]

	Males	**Females**
a. American Indian or Alaska Native		
b. Asian		
c. Black or African American		
d. Hispanic/Latino		
e. Native Hawaiian or Other Pacific Islander		
f. White		
g. Two or more races		

43. Which of the following best describes the prior science achievement levels of the students in this class relative to other students in this school?

○	Mostly low achievers
○	Mostly average achievers
○	Mostly high achievers
○	A mixture of levels

44. How much control do you have over each of the following aspects of science instruction in this class? [Select one on each row.]

	No Control		Moderate Control		Strong Control
a. Determining course goals and objectives	①	②	③	④	⑤
b. Selecting textbooks/modules	①	②	③	④	⑤
c. Selecting content, topics, and skills to be taught	①	②	③	④	⑤
d. Selecting teaching techniques	①	②	③	④	⑤
e. Determining the amount of homework to be assigned	①	②	③	④	⑤
f. Choosing criteria for grading student performance	①	②	③	④	⑤

45. Think about your plans for this class for the entire course/year. By the end of the course/year, how much emphasis will each of the following student objectives receive? [Select one on each row.]

	None	Minimal emphasis	Moderate emphasis	Heavy emphasis
a. Memorizing science vocabulary and/or facts	①	②	③	④
b. Understanding science concepts	①	②	③	④
c. Learning science process skills (for example: observing, measuring)	①	②	③	④
d. Learning about real-life applications of science	①	②	③	④
e. Increasing students' interest in science	①	②	③	④
f. Preparing for further study in science	①	②	③	④
g. Learning test taking skills/strategies	①	②	③	④

46. How often do you do each of the following in your science instruction in this class? [Select one on each row.]

	Never	Rarely (for example: A few times a year)	Sometimes (for example: Once or twice a month)	Often (for example: Once or twice a week)	All or almost all science lessons
a. Explain science ideas to the whole class	①	②	③	④	⑤
b. Engage the whole class in discussions	①	②	③	④	⑤
c. Have students work in small groups	①	②	③	④	⑤
d. Do hands-on/laboratory activities	①	②	③	④	⑤
e. Engage the class in project-based learning (PBL) activities	①	②	③	④	⑤
f. Have students read from a science textbook, module, or other science-related material in class, either aloud or to themselves	①	②	③	④	⑤
g. Have students represent and/or analyze data using tables, charts, or graphs	①	②	③	④	⑤
h. Require students to supply evidence in support of their claims	①	②	③	④	⑤
i. Have students make formal presentations to the rest of the class (for example: on individual or group projects)	①	②	③	④	⑤
j. Have students write their reflections (for example: in their journals) in class or for homework	①	②	③	④	⑤
k. Give tests and/or quizzes that are predominantly short-answer (for example: multiple choice, true /false, fill in the blank)	①	②	③	④	⑤
l. Give tests and/or quizzes that include constructed-response/open-ended items	①	②	③	④	⑤
m. Focus on literacy skills (for example: informational reading or writing strategies)	①	②	③	④	⑤
n. Have students practice for standardized tests	①	②	③	④	⑤
o. Have students attend presentations by guest speakers focused on science and/or engineering in the workplace	①	②	③	④	⑤

47. Which best describes the availability of each of the following for small group (4-5 students) work in this class? [Select one on each row.]

	Do not have one per group available	At least one per group available upon request or in another room	At least one per group located in your classroom
a. Personal computers, including laptops	○	○	○
b. Hand-held computers (for example: PDAs, tablets, smartphones, iPads)	○	○	○
c. Internet access	○	○	○
d. Graphing calculators	○	○	○
e. Other calculators	○	○	○
f. Probes for collecting data (for example: motion sensors, temperature probes)	○	○	○
g. Microscopes	○	○	○
h. Classroom response system or "Clickers" (handheld devices used to respond electronically to questions in class)	○	○	○

48. For each of the following, are students expected to provide their own for use in this science class? [Select one on each row.]

	Yes	No
a. Laptop computers	○	○
b. Hand-held computers	○	○
c. Graphing calculators	○	○
d. Other calculators	○	○

49. How often do students use each of the following instructional technologies in this science class? [Select one on each row.]

	Never	Rarely (for example: A few times a year)	Sometimes (for example: Once or twice a month)	Often (for example: Once or twice a week)	All or almost all science lessons
a. Personal computers, including laptops	①	②	③	④	⑤
b. Hand-held computers	①	②	③	④	⑤
c. Internet	①	②	③	④	⑤
d. Calculators ***[Presented to grades K–5 teachers only]***	①	②	③	④	⑤
e. Graphing calculators ***[Presented to grades 6–12 teachers only]***	①	②	③	④	⑤
f. Probes for collecting data	①	②	③	④	⑤
g. Classroom response system or "Clickers"	①	②	③	④	⑤

50. Please indicate the availability of each of the following for your science instruction in this class. [Select one on each row.]

	Not available	Available in another room	Located in your classroom
a. Lab tables	○	○	○
b. Electric outlets	○	○	○
c. Faucets and sinks	○	○	○
d. Gas for burners ***[Presented to grades 9–12 teachers only]***	○	○	○
e. Fume hoods ***[Presented to grades 9–12 teachers only]***	○	○	○

51. How often are students in this class required to take science tests that you did not develop yourself, for example state assessments or district benchmarks? (Do not include Advanced Placement or International Baccalaureate exams or students retaking a test because of failure.)

○	Never
○	Once a year
○	Twice a year
○	Three or four times a year
○	Five or more times a year

52. How much science homework do you assign to this class in a typical **week**? (Do not include time that the class spends getting started on homework during class.)

○	Fewer than 15 minutes per week
○	15–30 minutes per week
○	31–60 minutes per week
○	61–90 minutes per week
○	91–120 minutes per week
○	2–3 hours per week
○	3–4 hours per week
○	More than 4 hours per week

53. Which best describes the instructional materials students **most frequently** use in this class?

Mainly commercially-published textbook(s)	
○	One textbook
○	Multiple textbooks
Mainly commercially-published modules	
○	Modules from a single publisher
○	Modules from multiple publishers
Other	
○	A roughly equal mix of commercially-published textbooks and commercially-published modules most of the time
○	Non-commercially-published materials most of the time ***[Skip to Q58]***

54. Please indicate the title, author, most recent copyright year, and ISBN code of the textbook/module used by the students in this class.

- The 10- or 13-character ISBN code can be found on the copyright page and/or the back cover of the textbook/module.
- Do not include the dashes when entering the ISBN.
- An example of the location of the ISBN is shown to the right.

Title:
First Author:
Year:
ISBN:

55. How would you rate the overall quality of this textbook/the modules used from this publisher?

○	Very poor
○	Poor
○	Fair
○	Good
○	Very good
○	Excellent

56. ***[Presented only to teachers who indicated using one commercially-published textbook or modules from a single publisher in Q53]***
Over the course of the school year, approximately what percentage of the science **instructional time** will students in this class spend using this textbook/these modules?

○	Less than 25%
○	25–49%
○	50–74%
○	75–90%
○	More than 90%

57. ***[Presented only to teachers who indicated using one commercially-published textbook in Q53]***
Approximately what percentage of the chapters in this textbook will students in this class engage with during the school year?

○	Less than 25%
○	25–49%
○	50–74%
○	75–90%
○	More than 90%

58. Science courses may benefit from the availability of particular kinds of ***equipment*** (for example: microscopes, beakers, photogate timers, Bunsen burners). How adequate is the ***equipment*** you have available for teaching this science class?

○	Not adequate
○	
○	Somewhat adequate
○	
○	Adequate

59. Science courses may benefit from the availability of particular kinds of ***instructional technology*** (for example: calculators, computers, probes/sensors). How adequate is the ***instructional technology*** you have available for teaching this science class?

○	Not adequate
○	
○	Somewhat adequate
○	
○	Adequate

60. Science courses may benefit from the availability of particular kinds of ***consumable supplies*** (for example: chemicals, living organisms, batteries). How adequate are the ***consumable supplies*** you have available for teaching this science class?

○	Not adequate
○	
○	Somewhat adequate
○	
○	Adequate

61. Science courses may benefit from the availability of particular kinds of ***facilities*** (for example: lab tables, electric outlets, faucets and sinks). How adequate are the ***facilities*** you have available for teaching this science class?

○	Not adequate
○	
○	Somewhat adequate
○	
○	Adequate

62. In your opinion, how great a problem is each of the following for your science instruction in this class? [Select one on each row.]

	Not a significant problem	**Somewhat of a problem**	**Serious problem**
a. Lack of access to computers	○	○	○
b. Old age of computers	○	○	○
c. Lack of access to the Internet	○	○	○
d. Unreliability of the Internet connection	○	○	○
e. Slow speed of the Internet connection	○	○	○
f. Lack of availability of appropriate computer software	○	○	○
g. Lack of availability of technology support	○	○	○

63. Please rate the effect of each of the following on your science instruction in this class. [Select one on each row.]

	Inhibits effective instruction		**Neutral or Mixed**		**Promotes effective instruction**	**N/A or Don't Know**
a. Current state standards	①	②	③	④	⑤	○
b. District/Diocese curriculum frameworks ***[Not presented to non-Catholic private schools]***	①	②	③	④	⑤	○
c. District/Diocese and/or school pacing guides	①	②	③	④	⑤	○
d. State testing/accountability policies ***[Not presented to non-Catholic private schools]***	①	②	③	④	⑤	○
e. District/Diocese testing/accountability policies ***[Not presented to non-Catholic private schools]***	①	②	③	④	⑤	○
f. Textbook/module selection policies	①	②	③	④	⑤	○
g. Teacher evaluation policies	①	②	③	④	⑤	○
h. College entrance requirements ***[Presented to grades 9–12 teachers only]***	①	②	③	④	⑤	○
i. Students' motivation, interest, and effort in science	①	②	③	④	⑤	○
j. Students' reading abilities	①	②	③	④	⑤	○
k. Community views on science instruction	①	②	③	④	⑤	○
l. Parent expectations and involvement	①	②	③	④	⑤	○
m. Principal support	①	②	③	④	⑤	○
n. Time for you to plan, individually and with colleagues	①	②	③	④	⑤	○
o. Time available for your professional development	①	②	③	④	⑤	○

Section C. Your Most Recently Completed Science Unit in this Class

The questions in this section are about the most recently completed science unit in this class.

- Depending on the structure of your class and the instructional materials you use, a unit may range from a few to many class periods.
- Do not be concerned if this unit was not typical of your instruction.

64. How many class periods were devoted to instruction on the **most recently completed science unit**? [Enter your response as a whole number (for example: 15).] _____

65. Which of the following best describes the content of this unit?

○	Earth/Space Science
○	Life Science/Biology
○	Environmental Science/Ecology
○	Chemistry
○	Physics
○	Engineering

66. What science ideas and/or skills were addressed in this unit? _____

67. ***[Presented only to teachers who indicated using commercially-published textbooks/modules in Q53]***

Was this unit based primarily on the commercially-published textbook/modules you described earlier as the one used most often in this class?

○	Yes ***[Skip to Q70]***
○	No

68. Was this unit based on a commercially-published textbook/module?

○	Yes
○	No ***[Skip to Q74]***

69. Please indicate the title, author, most recent copyright year, and ISBN code of that textbook/module.

- The 10- or 13-character ISBN code can be found on the copyright page and/or the back cover of the textbook/module.
- Do not include the dashes when entering the ISBN.
- An example of the location of the ISBN is shown to the right.

Title:
First Author:
Year:
ISBN:

70. Please indicate the extent to which you did each of the following while teaching this unit. [Select one on each row.]

	Not at all		Somewhat		To a great extent
a. You used the textbook/module to guide the overall structure and content emphasis of the unit.	①	②	③	④	⑤
b. You followed the textbook/module to guide the detailed structure and content emphasis of the unit.	①	②	③	④	⑤
c. You picked what is important from the textbook/module and skipped the rest.	①	②	③	④	⑤
d. You incorporated activities (for example: problems, investigations, readings) from other sources to supplement what the textbook/module was lacking.	①	②	③	④	⑤

71. ***[Presented only to teachers who answered "2–5" in Q70c]***

During this unit, when you skipped activities (for example: problems, investigations, readings) in your textbook/module, how much was each of the following a factor in your decisions? [Select one on each row.]

	Not a factor	A minor factor	A major factor
a. The science ideas addressed in the activities you skipped are not included in your pacing guide and/or current state standards.	①	②	③
b. You did not have the materials needed to implement the activities you skipped.	①	②	③
c. The activities you skipped were too difficult for your students.	①	②	③
d. Your students already knew the science ideas or were able to learn them without the activities you skipped.	①	②	③
e. You have different activities for those science ideas that work better than the ones you skipped.	①	②	③

72. ***[Presented only to teachers who answered "2–5" in Q70d]***

During this unit, when you supplemented the textbook/module with additional activities, how much was each of the following a factor in your decisions? [Select one on each row.]

	Not a factor	A minor factor	A major factor
a. Your pacing guide indicated that you should use supplemental activities.	①	②	③
b. Supplemental activities were needed to prepare students for standardized tests.	①	②	③
c. Supplemental activities were needed to provide students with additional practice.	①	②	③
d. Supplemental activities were needed so students at different levels of achievement could increase their understanding of the ideas targeted in each activity.	①	②	③

73. How well prepared did you feel to do each of the following as part of your instruction on this particular unit? [Select one on each row.]

	Not adequately prepared	Somewhat prepared	Fairly well prepared	Very well prepared
a. Anticipate difficulties that students may have with particular science ideas and procedures in this unit	①	②	③	④
b. Find out what students thought or already knew about the key science ideas	①	②	③	④
c. Implement the science textbook/module to be used during this unit ***[Presented only to teachers who indicated using commercially-published textbooks/modules in Q67/68]***	①	②	③	④
d. Monitor student understanding during this unit	①	②	③	④
e. Assess student understanding at the conclusion of this unit	①	②	③	④

74. Which of the following did you do during this unit? [Select all that apply.]

□	Administered an assessment, task, or probe at the beginning of the unit to find out what students thought or already knew about the key science ideas
□	Questioned individual students during class activities to see if they were "getting it"
□	Used information from informal assessments of the entire class (for example: asking for a show of hands, thumbs up/thumbs down, clickers, exit tickets) to see if students were "getting it"
□	Reviewed student work (for example: homework, notebooks, journals, portfolios, projects) to see if they were "getting it"
□	Administered one or more quizzes and/or tests to see if students were "getting it"
□	Had students use rubrics to examine their own or their classmates' work
□	Assigned grades to student work (for example: homework, notebooks, journals, portfolios, projects)
□	Administered one or more quizzes and/or tests to assign grades
□	Went over the correct answers to assignments, quizzes, and/or tests with the class as a whole

Section D. Your Most Recent Science Lesson in this Class

The next three questions refer to the most recent science lesson in this class, whether or not that instruction was part of the unit you've just been describing. Do not be concerned if this lesson included activities and/or interruptions that are not typical (for example: a test, students working on projects, a fire drill).

75. How many minutes was that lesson? [Enter your response as a non-zero whole number (for example: 50).] _____

76. Of these minutes, how many were spent on the following: [Enter each response as a whole number (for example: 15).]

a. Non-instructional activities (for example: attendance taking, interruptions) ____
b. Whole class activities (for example: lectures, explanations, discussions)____
c. Small group work ___
d. Students working individually (for example: reading textbooks, completing worksheets, taking a test or quiz) ___

77. Which of the following activities took place during that science lesson? [Select all that apply.]

□	Teacher explaining a science idea to the whole class
□	Whole class discussion
□	Students completing textbook/worksheet problems
□	Teacher conducting a demonstration while students watched
□	Students doing hands-on/laboratory activities
□	Students reading about science
□	Students using instructional technology
□	Practicing for standardized tests
□	Test or quiz
□	None of the above

Section E. Demographic Information

78. Indicate your sex:

○	Male
○	Female

79. Are you of Hispanic or Latino origin?

○	Yes
○	No

80. What is your race? [Select all that apply.]

□	American Indian or Alaska Native
□	Asian
□	Black or African American
□	Native Hawaiian or Other Pacific Islander
□	White

81. In what year were you born? [Enter your response as a whole number (for example: 1969). Do not use commas.] _____

Thank you!