

2000 National Survey of Science and Mathematics Education

Science Questionnaire

You have been selected to answer questions about your science instruction. If you do not currently teach science, please call us toll-free at 1-800-937-8288.

How to Complete the Questionnaire

Most of the questions instruct you to "darken one" answer or "darken all that apply." For a few questions, you are asked to write in your answer on the line provided. Please use a #2 pencil or blue or black pen to complete this questionnaire. Darken ovals completely, but do not stray into adjacent ovals. Be sure to erase or white out completely any stray marks.

Class Selection

Part of the questionnaire (sections C and D) asks you to provide information about instruction in a particular class. If you teach science to more than one class, use the label at the right to determine the science class that has been randomly selected for you to answer about. (If your teaching schedule varies by day, use today's schedule, or if today is not a school day, use the most recent school day.)

If You Have Questions

If you have questions about the study or any items in the questionnaire, call us toll-free at 1-800-937-8288.

Each participating school will receive a voucher for \$50 worth of science and mathematics materials. The voucher will be augmented by \$15 for each responding teacher. In addition, each participating school will receive a copy of the study's results in the spring of 2001.

Thank you very much. Your participation is greatly appreciated. Please return the completed questionnaire to us in the postage-paid envelope:

*2000 National Survey of Science and Mathematics Education
Westat
1650 Research Blvd.
TB120F
Rockville, MD 20850*



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A. Teacher Opinions

1. Please provide your opinion about each of the following statements.
(Darken one oval on each line.)

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
a. Students learn science best in classes with students of similar abilities.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. The testing program in my state/district dictates what science content I teach.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I enjoy teaching science.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I consider myself a "master" science teacher.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. I have time during the regular school week to work with my colleagues on science curriculum and teaching.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. My colleagues and I regularly share ideas and materials related to science teaching.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Science teachers in this school regularly observe each other teaching classes as part of sharing and improving instructional strategies.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Most science teachers in this school contribute actively to making decisions about the science curriculum.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2a. How familiar are you with the *National Science Education Standards*, published by the National Research Council?
(Darken one oval.)

- Not at all familiar, SKIP TO QUESTION 3
- Somewhat familiar
- Fairly familiar
- Very familiar

2b. Please indicate the extent of your agreement with the overall vision of science education described in the *National Science Education Standards*. (Darken one oval.)

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2c. To what extent have you implemented recommendations from the *National Science Education Standards* in your science teaching? (Darken one oval.)

Not at all	To a minimal extent	To a moderate extent	To a great extent
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B. Teacher Background

3. Please indicate how well prepared you currently feel to do each of the following in your science instruction. (Darken one oval on each line.)

	Not Adequately Prepared	Somewhat Prepared	Fairly Well Prepared	Very Well Prepared
a. Take students' prior understanding into account when planning curriculum and instruction	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Develop students' conceptual understanding of science	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Provide deeper coverage of fewer science concepts	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Make connections between science and other disciplines	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Lead a class of students using investigative strategies	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 3 continues on next page...

3. *continued...*

	Not Adequately Prepared	Somewhat Prepared	Fairly Well Prepared	Very Well Prepared
f. Manage a class of students engaged in hands-on/project-based work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
g. Have students work in cooperative learning groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Listen/ask questions as students work in order to gauge their understanding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Use the textbook as a resource rather than the primary instructional tool	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Teach groups that are heterogeneous in ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Teach students who have limited English proficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Recognize and respond to student cultural diversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Encourage students' interest in science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Encourage participation of females in science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Encourage participation of minorities in science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Involve parents in the science education of their children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Use calculators/computers for drill and practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. Use calculators/computers for science learning games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
s. Use calculators/computers to collect and/or analyze data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
t. Use computers to demonstrate scientific principles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
u. Use computers for laboratory simulations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
v. Use the Internet in your science teaching for general reference	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
w. Use the Internet in your science teaching for data acquisition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
x. Use the Internet in your science teaching for collaborative projects with classes/individuals in other schools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4a. Do you have each of the following degrees?

Bachelors	<input type="radio"/>	Yes	<input type="radio"/>	No
Masters	<input type="radio"/>	Yes	<input type="radio"/>	No
Doctorate	<input type="radio"/>	Yes	<input type="radio"/>	No

4b. Please indicate the subject(s) for each of your degrees.
(Darken all that apply.)

	Bachelors	Masters	Doctorate
Biology/Life Science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chemistry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Earth/Space Science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other science, please specify: _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Science Education (any science discipline)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mathematics/Mathematics Education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Elementary Education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Education (e.g., History Education, Special Education)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify: _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

PLEASE DO NOT WRITE IN THIS AREA



[SERIAL]

63 5. Which of the following college courses have you completed? Include both semester hour and quarter hour courses, whether
62 graduate or undergraduate level. Include courses for which you received college credit, even if you took the course in high
61 school. (Darken all that apply.)
60

59 **EDUCATION**

- 58 General methods of teaching
- 57 Methods of teaching science
- 56 Instructional uses of computers/other technologies
- 55 Supervised student teaching in science
- 54
- 53

52 **MATHEMATICS**

- 51 College algebra/trigonometry/elementary functions
- 50 Calculus
- 49 Advanced calculus
- 48 Differential equations
- 47 Discrete mathematics
- 46 Probability and statistics
- 45
- 44

43 **CHEMISTRY**

- 42 General/introductory chemistry
- 41 Analytical chemistry
- 40 Organic chemistry
- 39 Physical chemistry
- 38 Quantum chemistry
- 37 Biochemistry
- 36 Other chemistry
- 35
- 34

EARTH/SPACE SCIENCES

- 58 Introductory earth science
- 57 Astronomy
- 56 Geology
- 55 Meteorology
- 54 Oceanography
- 53 Physical geography
- 52 Environmental science
- 51 Agricultural science
- 50
- 49

LIFE SCIENCES

- 48 Introductory biology/life science
- 47 Botany, plant physiology
- 46 Cell biology
- 45 Ecology
- 44 Entomology
- 43 Genetics, evolution
- 42 Microbiology
- 41 Anatomy/Physiology
- 40 Zoology, animal behavior
- 39 Other life science
- 38
- 37

PHYSICS

- 58 Physical science
- 57 General/introductory physics
- 56 Electricity and magnetism
- 55 Heat and thermodynamics
- 54 Mechanics
- 53 Modern or quantum physics
- 52 Nuclear physics
- 51 Optics
- 50 Solid state physics
- 49 Other physics
- 48
- 47

OTHER

- 46 History of science
- 45 Philosophy of science
- 44 Science and society
- 43 Electronics
- 42 Engineering (Any)
- 41 Integrated science
- 40 Computer programming
- 39 Other computer science
- 38
- 37

33 6. For each of the following subject areas, indicate the number of college semester and quarter courses you have completed.
32 Count each course you have taken, regardless of whether it was a graduate or undergraduate course. If your transcripts are not
31 available, provide your best estimates.
30
29
28

	Semester Courses	Quarter Courses
27 a. Life sciences	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
26 b. Chemistry	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
25 c. Physics/physical science	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
24 d. Earth/space science	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
23 e. Science education	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
22 f. Mathematics	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>

18 7. Considering all of your undergraduate and graduate **science** courses, approximately what percentage were completed at each
17 of the following types of institutions? (Darken one oval on each line.)
16

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
15 a. Two-year college/community college/technical school	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14 b. Four-year college/university	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. In what year did you last take a formal course for college credit in:
(Please enter your answers in the spaces provided, then darken the corresponding oval in each column.)

a. Science

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

b. The Teaching of Science

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you have never taken a course in the teaching of science, darken this oval and go to question 9.

9. What is the **total** amount of time you have spent on professional development in science or the teaching of science in the last 12 months? in the last 3 years? (Include attendance at professional meetings, workshops, and conferences, but **do not** include formal courses for which you received college credit or time you spent **providing** professional development for other teachers.) (Darken one oval in each column.)

<u>Hours of In-service Education</u>	Last 12 months	Last 3 years
None	<input type="radio"/>	<input type="radio"/>
Less than 6 hours	<input type="radio"/>	<input type="radio"/>
6-15 hours	<input type="radio"/>	<input type="radio"/>
16-35 hours	<input type="radio"/>	<input type="radio"/>
More than 35 hours	<input type="radio"/>	<input type="radio"/>

10. In the past **12 months**, have you: (Darken one oval on each line.)

a. Taught any in-service workshops in science or science teaching?	<input type="radio"/> Yes	<input type="radio"/> No
b. Mentored another teacher as part of a formal arrangement that is recognized or supported by the school or district, not including supervision of student teachers?	<input type="radio"/> Yes	<input type="radio"/> No
c. Received any local, state, or national grants or awards for science teaching?	<input type="radio"/> Yes	<input type="radio"/> No
d. Served on a school or district science curriculum committee?	<input type="radio"/> Yes	<input type="radio"/> No
e. Served on a school or district science textbook selection committee?	<input type="radio"/> Yes	<input type="radio"/> No

11. In the past **3 years**, have you participated in any of the following activities related to science or the teaching of science? (Darken one oval on each line.)

a. Taken a formal college/university science course. (Please do not include courses taken as part of your undergraduate degree.)	<input type="radio"/> Yes	<input type="radio"/> No
b. Taken a formal college/university course in the teaching of science. (Please do not include courses taken as part of your undergraduate degree.)	<input type="radio"/> Yes	<input type="radio"/> No
c. Observed other teachers teaching science as part of your own professional development (formal or informal).	<input type="radio"/> Yes	<input type="radio"/> No
d. Met with a local group of teachers on a regular basis to study/discuss science teaching issues.	<input type="radio"/> Yes	<input type="radio"/> No
e. Collaborated on science teaching issues with a group of teachers at a distance using telecommunications.	<input type="radio"/> Yes	<input type="radio"/> No
f. Served as a mentor and/or peer coach in science teaching, as part of a formal arrangement that is recognized or supported by the school or district. (Please do not include supervision of student teachers.)	<input type="radio"/> Yes	<input type="radio"/> No
g. Attended a workshop on science teaching.	<input type="radio"/> Yes	<input type="radio"/> No

Question 11 continues on next page...

63 11. continued...

- 62
- 61 h. Attended a national or state science teacher association meeting. Yes No
- 60 i. Applied (or applying) for certification from the National Board for Professional Teaching Standards (NBPTS). Yes No
- 59 j. Received certification from the National Board for Professional Teaching Standards (NBPTS). Yes No
- 58
- 57

56 **Questions 12a-12c ask about your professional development in the last 3 years. If you have been teaching for fewer than 3 years, please answer for the time that you have been teaching.**

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- 53
- 52 12a. Think back to **3 years ago**. How would you rate your level of need for professional development in each of these areas *at that time*? (Darken one oval on each line.)
- 51
- 50
- | | None Needed | Minor Need | Moderate Need | Substantial Need |
|---|----------------------------------|-----------------------|-----------------------|-----------------------|
| 49 Deepening my own science content knowledge | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 48 Understanding student thinking in science | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 47 Learning how to use inquiry/investigation-oriented teaching strategies | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 46 | | | | |
| 45 Learning how to use technology in science instruction | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 44 Learning how to assess student learning in science | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 43 Learning how to teach science in a class that includes students with special needs | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

- 42
- 41
- 40 12b. Considering all the professional development you have participated in **during the last 3 years**, how much was each of the following emphasized? (Darken one oval on each line.)
- 39
- | | Not at all | To a great extent | | |
|---|-----------------------|----------------------------------|----------------------------------|----------------------------------|
| 38 Deepening my own science content knowledge | <input type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> |
| 37 Understanding student thinking in science | <input type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> |
| 36 Learning how to use inquiry/investigation-oriented teaching strategies | <input type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> |
| 35 | | | | |
| 34 Learning how to use technology in science instruction | <input type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> |
| 33 Learning how to assess student learning in science | <input type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> |
| 32 Learning how to teach science in a class that includes students with special needs | <input type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> |

- 31
- 30 12c. Considering all your professional development in the **last 3 years**, how would you rate its impact in each of these areas? (Darken one oval on each line.)
- 29
- | | Little or no impact | Confirmed what I was already doing | Caused me to change my teaching practices |
|---|-----------------------|------------------------------------|---|
| 28 Deepening my own science content knowledge | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |
| 27 Understanding student thinking in science | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |
| 26 Learning how to use inquiry/investigation-oriented teaching strategies | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |
| 25 | | | |
| 24 Learning how to use technology in science instruction | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |
| 23 Learning how to assess student learning in science | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |
| 22 Learning how to teach science in a class that includes students with special needs | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |

- 18
- 17
- 16 13a. Do you teach in a **self-contained class**? (i.e., you teach multiple subjects to the same class of students all or most of the day.) Yes, CONTINUE WITH QUESTIONS 13b AND 13c
- 15 No, SKIP TO QUESTION 14
- 14

- 13 13b. **For teachers of self-contained classes:** Many teachers feel better qualified to teach some subject areas than others. How well qualified 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 curriculum? (Darken one oval on each line.)
- 12
- | | Not Well Qualified | Adequately Qualified | Very Well Qualified |
|----------------------------|----------------------------------|-----------------------|-----------------------|
| 11 a. Life science | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10 b. Earth science | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9 c. Physical science | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8 d. Mathematics | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7 e. Reading/Language Arts | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6 f. Social Studies | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
- 5
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13c. **For teachers of self-contained classes:** We are interested in knowing how much time your students spend studying various subjects. In a typical week, how many days do you have lessons on each of the following subjects, and how many minutes long is an average lesson? (Please indicate "0" if you do not teach a particular subject to this class. Please enter your answer in the spaces provided, then darken the corresponding oval in each column. Enter the number of minutes as a 3-digit number; e.g., if 30 minutes, enter as 030.)

Mathematics		Science		Social Studies		Reading/Language Arts	
Days Per Week	Approximate Minutes Per Day	Days Per Week	Approximate Minutes Per Day	Days Per Week	Approximate Minutes Per Day	Days Per Week	Approximate Minutes Per Day
<input type="radio"/> 0	<input type="radio"/> 000	<input type="radio"/> 0	<input type="radio"/> 000	<input type="radio"/> 0	<input type="radio"/> 000	<input type="radio"/> 0	<input type="radio"/> 000
<input type="radio"/> 1	<input type="radio"/> 000	<input type="radio"/> 1	<input type="radio"/> 000	<input type="radio"/> 1	<input type="radio"/> 000	<input type="radio"/> 1	<input type="radio"/> 000
<input type="radio"/> 2	<input type="radio"/> 000	<input type="radio"/> 2	<input type="radio"/> 000	<input type="radio"/> 2	<input type="radio"/> 000	<input type="radio"/> 2	<input type="radio"/> 000
<input type="radio"/> 3	<input type="radio"/> 000	<input type="radio"/> 3	<input type="radio"/> 000	<input type="radio"/> 3	<input type="radio"/> 000	<input type="radio"/> 3	<input type="radio"/> 000
<input type="radio"/> 4	<input type="radio"/> 000	<input type="radio"/> 4	<input type="radio"/> 000	<input type="radio"/> 4	<input type="radio"/> 000	<input type="radio"/> 4	<input type="radio"/> 000
<input type="radio"/> 5	<input type="radio"/> 000	<input type="radio"/> 5	<input type="radio"/> 000	<input type="radio"/> 5	<input type="radio"/> 000	<input type="radio"/> 5	<input type="radio"/> 000

NOW GO TO SECTION C, PAGE 8.

14. Which of these categories best describes the way **your** classes at this school are organized? (Darken one oval.)
- a. **Departmentalized Instruction**—you teach subject matter courses (including science, and perhaps other courses) to several different classes of students all or most of the day.
 - b. **Elementary Enrichment Class**—you teach only science in an elementary school.
 - c. **Team Teaching**—you collaborate with one or more teachers in teaching multiple subjects to the same class of students; your assignment includes science.

15a. **For teachers of non-self-contained classes:** Within science, many teachers feel better qualified to teach some topics than others. How well qualified 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 curriculum? (Darken one oval on each line.)

	Not Well Qualified	Adequately Qualified	Very Well Qualified
1. Earth science			
a. Earth's features and physical processes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. The solar system and the universe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Climate and weather	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Biology			
a. Structure and function of human systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Plant biology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Animal behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Interactions of living things/ecology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Genetics and evolution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Chemistry			
a. Structure of matter and chemical bonding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Properties and states of matter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Chemical reactions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Energy and chemical change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 15a continues on next page...

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15a. continued...

		Not well qualified	Adequately qualified	Very well qualified
4.	Physics			
a.	Forces and motion	1	2	3
b.	Energy	1	2	3
c.	Light and sound	1	2	3
d.	Electricity and magnetism	1	2	3
e.	Modern physics (e.g., special relativity)	1	2	3
5.	Environmental and resource issues			
a.	Pollution, acid rain, global warming	1	2	3
b.	Population, food supply and production	1	2	3
6.	Science process/inquiry skills			
a.	Formulating hypotheses, drawing conclusions, making generalizations	1	2	3
b.	Experimental design	1	2	3
c.	Describing, graphing, and interpreting data	1	2	3

15b. **For teachers of non-self-contained classes:** For each class period you are currently teaching, regardless of the subject, give *course title*, the *code-number* from the enclosed blue "List of Course Titles" that best describes the content addressed in the class, and the *number of students* in the class. (Please enter your answers in the spaces provided, then darken the corresponding oval in each column. **If you teach more than one section of a course, record each section separately below.**)

- Note that if you have more than 39 students in any class, you will not be able to darken the ovals, but you should still write the number in the boxes.
- If you teach more than 6 classes per day, please provide the requested information for the additional classes on a separate sheet of paper.

Course Title		Course Title		Course Title	
Code #	# of Students	Code #	# of Students	Code #	# of Students
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9
10	10	10	10	10	10
11	11	11	11	11	11
12	12	12	12	12	12
13	13	13	13	13	13
14	14	14	14	14	14
15	15	15	15	15	15
16	16	16	16	16	16
17	17	17	17	17	17
18	18	18	18	18	18
19	19	19	19	19	19
20	20	20	20	20	20
21	21	21	21	21	21
22	22	22	22	22	22
23	23	23	23	23	23
24	24	24	24	24	24
25	25	25	25	25	25
26	26	26	26	26	26
27	27	27	27	27	27
28	28	28	28	28	28
29	29	29	29	29	29
30	30	30	30	30	30
31	31	31	31	31	31
32	32	32	32	32	32
33	33	33	33	33	33
34	34	34	34	34	34
35	35	35	35	35	35
36	36	36	36	36	36
37	37	37	37	37	37
38	38	38	38	38	38
39	39	39	39	39	39
40	40	40	40	40	40
41	41	41	41	41	41
42	42	42	42	42	42
43	43	43	43	43	43
44	44	44	44	44	44
45	45	45	45	45	45
46	46	46	46	46	46
47	47	47	47	47	47
48	48	48	48	48	48
49	49	49	49	49	49
50	50	50	50	50	50
51	51	51	51	51	51
52	52	52	52	52	52
53	53	53	53	53	53
54	54	54	54	54	54
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56	56	56	56	56	56
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58	58	58	58	58	58
59	59	59	59	59	59
60	60	60	60	60	60
61	61	61	61	61	61
62	62	62	62	62	62
63	63	63	63	63	63

C. Your Science Teaching in a Particular Class

The questions in this section are about a particular science class you teach. **If you teach science to more than one class per day, please consult the label on the front of this questionnaire to determine which science class to use to answer these questions.**

16. Using the blue "List of Course Titles," indicate the code number that best describes this course. Please enter your answer in the spaces to the right, then darken the corresponding oval in each column. (If "other" [Code 199], briefly describe content of course:

Code #

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 17a. Are all students in this class in the same grade?

Yes, specify grade:
 THEN SKIP TO QUESTION 18a

No, CONTINUE WITH QUESTION 17b

- 17b. What grades are represented in this class? (Darken all that apply.) For each grade noted, indicate the number of students in this class in that grade. Write your answer in the space provided, then darken the corresponding oval in each column. **Note that if more than 39 students in this class are in a single grade, you will not be able to darken the ovals, but you should still write the number in the boxes.**

<input type="radio"/> K	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> 10	<input type="radio"/> 11	<input type="radio"/> 12
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 18a. What is the total number of students in this class? Write your answer in the space provided, then darken the corresponding oval in each column. **Note that if you have more than 39 students in this class, you will not be able to darken the ovals, but you should still write the number in the boxes.**

<input type="radio"/>	<input type="radio"/>
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63 18b. Please indicate the number of students in this class in each of the following categories. Consult the enclosed federal guidelines
 62 at the end of the course list (blue sheet) if you have any questions about how to classify particular students. (Please enter your
 61 answers in the spaces provided, then darken the corresponding oval in each column.)
 60
 59
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RACE/ETHNICITY

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54 Native Hawaiian or Other Pacific Islander

53 American Indian or Alaskan Native Asian Black or African-American Hispanic or Latino (any race) White

52 Male Female Male Female Male Female Male Female Male Female Male Female

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36 19a. Questions 19a and 19b apply only to teachers of non-self-contained classes. If you teach a self-contained class, please
 35 darken this oval and skip to question 20. What is the usual schedule and length (in minutes) of daily class meetings
 34 for this class? If the weekly schedule is normally the same, just complete Week 1, as in Example 1. If you are unable to
 33 describe this class in the format below, please attach a separate piece of paper with your description.
 32

Week 1 Week 2

27 Monday _____

26 Tuesday _____

25 Wednesday _____

24 Thursday _____

23 Friday _____

Examples

Example 1		Example 2	
Week 1	Week 2	Week 1	Week 2
45	_____	90	_____
45	_____	_____	90
45	_____	90	_____
45	_____	_____	90
45	_____	90	_____

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10 19b. What is the calendar duration of this science class? (Darken one oval.)

- 8 Year
- 7 Semester
- 6 Quarter

PLEASE DO NOT WRITE IN THIS AREA

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[SERIAL]

20. Are students assigned to this class by level of ability? (Darken one oval.) Yes No

21. Which of the following best describes the ability of the students in this class relative to other students in this school? (Darken one oval.)

- Fairly homogeneous and low in ability
- Fairly homogeneous and average in ability
- Fairly homogeneous and high in ability
- Heterogeneous, with a mixture of two or more ability levels

22. Indicate if any of the students in this science class are **formally** classified as each of the following: (Darken all that apply.)

- Limited English Proficiency
- Learning Disabled
- Mentally Handicapped
- Physically Handicapped, please specify handicap(s): _____

23. Think about your plans for this science class for the entire course. How much emphasis will each of the following **student objectives** receive? (Darken one oval on each line.)

	None	Minimal Emphasis	Moderate Emphasis	Heavy Emphasis
a. Increase students' interest in science	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
b. Learn basic science concepts	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Learn important terms and facts of science	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Learn science process/inquiry skills	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Prepare for further study in science	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Learn to evaluate arguments based on scientific evidence	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Learn how to communicate ideas in science effectively	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Learn about the applications of science in business and industry	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Learn about the relationship between science, technology, and society	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Learn about the history and nature of science	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Prepare for standardized tests	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

24. About how often do **you** do each of the following in your science instruction? (Darken one oval on each line.)

	Never	Rarely (e.g., a few times a year)	Sometimes (e.g., once or twice a month)	Often (e.g., once or twice a week)	All or almost all science lessons
a. Introduce content through formal presentations	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
b. Pose open-ended questions	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Engage the whole class in discussions	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Require students to supply evidence to support their claims	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Ask students to explain concepts to one another	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Ask students to consider alternative explanations	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Allow students to work at their own pace	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Help students see connections between science and other disciplines	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Assign science homework	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Read and comment on the reflections students have written, e.g., in their journals	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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25. About how often do students in this science class take part in the following types of activities? (Darken one oval on each line.)

	Never	Rarely (e.g., a few times a year)	Sometimes (e.g., once or twice a month)	Often (e.g., once or twice a week)	All or almost all science lessons
a. Listen and take notes during presentation by teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
b. Watch a science demonstration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Work in groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Read from a science textbook in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Read other (non-textbook) science-related materials in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Do hands-on/laboratory science activities or investigations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Follow specific instructions in an activity or investigation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Design or implement their <i>own</i> investigation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Participate in field work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Answer textbook or worksheet questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Record, represent, and/or analyze data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Write reflections (e.g., in a journal)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Prepare written science reports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Make formal presentations to the rest of the class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Work on extended science investigations or projects (a week or more in duration)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Use computers as a tool (e.g., spreadsheets, data analysis)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Use mathematics as a tool in problem-solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. Take field trips	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
s. Watch audiovisual presentations (e.g., videotapes, CD-ROMs, videodiscs, television programs, films, or filmstrips)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. About how often do students in this science class use **computers** to: (Darken one oval on each line.)

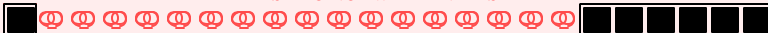
	Never	Rarely (e.g., a few times a year)	Sometimes (e.g., once or twice a month)	Often (e.g., once or twice a week)	All or almost all science lessons
a. Do drill and practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
b. Demonstrate scientific principles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Play science learning games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Do laboratory simulations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Collect data using sensors or probes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Retrieve or exchange data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Solve problems using simulations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Take a test or quiz	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. How often do you assess student progress in science in each of the following ways? (Darken one oval on each line.)

	Never	Rarely (e.g., a few times a year)	Sometimes (e.g., once or twice a month)	Often (e.g., once or twice a week)	All or almost all science lessons
a. Conduct a pre-assessment to determine what students already know.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Observe students and ask questions as they work individually.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Observe students and ask questions as they work in small groups.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Ask students questions during large group discussions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Use assessments embedded in class activities to see if students are "getting it"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Review student homework.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Review student notebooks/journals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
h. Review student portfolios.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 27 continues on next page...

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[SERIAL]

27. continued...

	Never	Rarely (e.g., a few times a year)	Sometimes (e.g., once or twice a month)	Often (e.g., once or twice a week)	All or almost all science lessons
i. Have students do long-term science projects.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Have students present their work to the class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Give predominantly short-answer tests (e.g., multiple choice, true/false, fill in the blank).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Give tests requiring open-ended responses (e.g., descriptions, explanations).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Grade student work on open-ended and/or laboratory tasks using defined criteria (e.g., a scoring rubric).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Have students assess each other (peer evaluation).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. For the following equipment, please indicate the extent to which each is available, whether or not each is needed, and the extent to which each is integrated in this science class.

	Not at all Available	Readily Available	Needed?	Never use in this course	Use in specific parts of this course	Fully integrated into this course
a. Overhead projector	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Videotape player	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Videodisc player	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. CD-ROM player	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Four-function calculators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Fraction calculators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Graphing calculators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Scientific calculators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Computers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Computers with Internet connection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Calculator/computer lab interfacing devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Running water in labs/classrooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Electric outlets in labs/classrooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Gas for burners in labs/classrooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Hoods or air hoses in labs/classrooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

29. How much of your own money do you estimate you will spend for supplies for this science class this school year (or semester or quarter if not a full-year course)? (Please enter your answer as a 3-digit number rounded to the nearest dollar, i.e., enter \$25.19 as 025. Enter your answer in the spaces to the right, then darken the corresponding oval in each column.)

\$

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If none, darken this oval:

30. How much of your own money do you estimate you will spend for your own professional development activities during the period Sept. 1, 1999 - Aug. 31, 2000? (Please enter your answer as a 3-digit number rounded to the nearest dollar, i.e., enter \$25.19 as 025. Enter your answer in the spaces to the right, then darken the corresponding oval in each column.)

\$

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If none, darken this oval:

63	31. How much control do you have over each of the following for this science class? (Darken one oval on each line.)								
62									
61									
60	a. Determining course goals and objectives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
59	b. Selecting textbooks/instructional programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
58	c. Selecting other instructional materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
57	d. Selecting content, topics, and skills to be taught	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
56	e. Selecting the sequence in which topics are covered	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
55									
54	f. Setting the pace for covering topics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
53	g. Selecting teaching techniques	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
52	h. Determining the amount of homework to be assigned	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
51	i. Choosing criteria for grading students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
50	j. Choosing tests for classroom assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

47 32. How much science homework do you assign to this science class in a typical **week**? (Darken one oval.)

46

45 0-30 min 31-60 min 61-90 min 91-120 min 2-3 hours More than 3 hours

44

42 33a. Are you using one or more commercially published textbooks or programs for teaching science to this class? (Darken one oval.)

41

40

39 No, SKIP TO SECTION D, PAGE 14

38 Yes, CONTINUE WITH 33b

37

35 33b. Which best describes your use of textbooks/programs in this class? (Darken one oval.)

34

33 Use one textbook or program all or most of the time

32 Use multiple textbooks/programs

31

29 34. Indicate the publisher of the **one** textbook/program used **most often** by students in this class. (Darken one oval.)

28

- | | | | |
|--------------------------|--|--------------------------|--------------------------------------|
| 27 <input type="radio"/> | Addison Wesley Longman, Inc/Scott Foresman | 45 <input type="radio"/> | Modern Curriculum Press |
| 26 <input type="radio"/> | Benjamin/Cummings Publishing Company, Inc. | 47 <input type="radio"/> | Mosby/The C.V. Mosby Company |
| 25 <input type="radio"/> | Brooks/Cole Publishing Co | 48 <input type="radio"/> | Nystrom |
| 24 <input type="radio"/> | Carolina Biological Supply Co | 49 <input type="radio"/> | Optical Data Corporation |
| 23 <input type="radio"/> | Delta Education | 50 <input type="radio"/> | Prentice Hall, Inc. |
| 22 <input type="radio"/> | Encyclopaedia Britannica | 51 <input type="radio"/> | Saxon Publishers |
| 21 <input type="radio"/> | Globe Fearon, Inc / Cambridge | 52 <input type="radio"/> | Scholastic, Inc. |
| 20 <input type="radio"/> | Harcourt Brace/Harcourt, Brace & Jovanovich | 53 <input type="radio"/> | Silver Burdett Ginn |
| 19 <input type="radio"/> | Holt, Rinehart and Winston, Inc | 54 <input type="radio"/> | South-Western Educational Publishing |
| 18 <input type="radio"/> | Houghton Mifflin Company/McDougal Littell/D.C. Heath | 55 <input type="radio"/> | Steck-Vaughn Company |
| 17 <input type="radio"/> | It's About Time | 56 <input type="radio"/> | Videodiscovery, Inc |
| 16 <input type="radio"/> | J.M. LeBel Enterprises | 57 <input type="radio"/> | W.H. Freeman |
| 15 <input type="radio"/> | Kendall Hunt Publishing | 58 <input type="radio"/> | Wadsworth Publishing |
| 14 <input type="radio"/> | Lawrence Hall of Science | | |
| 13 <input type="radio"/> | McGraw-Hill/Merrill Co (including CTB/McGraw-Hill,
Charles Merrill Publishing, Glencoe/McGraw-Hill,
Macmillan/McGraw-Hill, McGraw-Hill School
Division, Merrill/Glencoe, SRA/McGraw-Hill) | 59 <input type="radio"/> | Other, please specify:
_____ |

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[SERIAL]

35a. Please indicate the title, author, and publication year of the **one** textbook/program used **most often** by students in this class.

Title: _____

First Author: _____

Publication Year: _____ Edition: _____

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00	00	00	00
01	01	01	01
02	02	02	02
03	03	03	03
04	04	04	04
05	05	05	05
06	06	06	06
07	07	07	07
08	08	08	08
09	09	09	09
10	10	10	10
11	11	11	11
12	12	12	12
13	13	13	13
14	14	14	14
15	15	15	15
16	16	16	16
17	17	17	17
18	18	18	18
19	19	19	19
20	20	20	20

35b. Approximately what percentage of this textbook/program will you "cover" in this course? (Darken one oval.)

- < 25%
 25-49%
 50-74%
 75-90%
 >90%

35c. How would you rate the overall quality of this textbook/program? (Darken one oval.)

- Very Poor
 Poor
 Fair
 Good
 Very Good
 Excellent

D. Your Most Recent Science Lesson in This Class

Questions 36-38 refer to the last time you taught science to this class. Do not be concerned if this lesson was not typical of instruction in this class. (Please enter your answers as 3-digit numbers, i.e., if 30 minutes, enter as 030. Enter your answers in the spaces provided, then darken the corresponding oval in each column.)

36a. How many minutes were allocated to the most recent science lesson? (Note: Teachers in departmentalized and other non-self-contained settings should answer for the entire length of the class period, even if there were interruptions.)

00	00	00
01	01	01
02	02	02
03	03	03
04	04	04
05	05	05
06	06	06
07	07	07
08	08	08
09	09	09
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20

36b. Of these, how many minutes were spent on the following: (The sum of the numbers in 1.-6. below should equal your response in 36a.)

1. Daily routines, interruptions, and other non-instructional activities

2. Whole class lecture/discussions

3. Individual students reading textbooks, completing worksheets, etc.

4. Working with hands-on, manipulative, or laboratory materials

5. Non-laboratory small group work

6. Other

00	00	00
01	01	01
02	02	02
03	03	03
04	04	04
05	05	05
06	06	06
07	07	07
08	08	08
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15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20

00	00	00
01	01	01
02	02	02
03	03	03
04	04	04
05	05	05
06	06	06
07	07	07
08	08	08
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14	14	14
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16	16	16
17	17	17
18	18	18
19	19	19
20	20	20

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02	02	02
03	03	03
04	04	04
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19	19	19
20	20	20

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19	19	19
20	20	20

