Section Four

Science Program Questionnaire

Science Program Questionnaire

SPQ Tables

2000 National Survey of Science and Mathematics Education
School Science Program Questionnaire

Instructions: 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.

1. What is your title? (Darken all that apply.)

- Science department chair
- Science lead teacher
- Teacher
- Principal
- Assistant principal
- Other (please specify): _____

2. Indicate whether each of the following programs/practices is currently being implemented in your school. (Darken one oval on each line.)

		Yes	No	Don't Know/ Not Applicable
a.	School-based management			
b.	Common daily planning period for members of the science department			
c.	Common work space for members of the science department			
d.	Teachers *formally* designated and serving as science lead teachers			
e.	Teachers provided with release time to help other teachers in the school/district			
f.	Interdisciplinary teams of teachers who share the same students			
g.	Students assigned to science classes by ability			
h.	Use of vocational/technical applications in science instruction			
i.	Elementary or middle school students pulled out from self-contained classes for remedial instruction in science			
j.	Elementary or middle school students pulled out from self-contained classes for enrichment in science			
k.	Elementary or middle school students receiving instruction from science specialists *in addition to* their regular teacher			
l.	Elementary or middle school students receiving instruction from science specialists *instead of* their regular teacher			
m.	Science courses offered by telecommunications			
n.	Students going to another K-12 school for science courses			
o.	Students going to a college or university for science courses			
p.	Integration of science subjects (e.g., physical science, life science, and earth science all taught together each year)			

3. Please give us your opinion about each of the following statements in regard to the National Research Council's (NRC) work in setting standards for science curriculum, instruction, and assessment. (Darken one oval on each line.)

		Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
a.	I am prepared to explain the NRC *National Science Education Standards* to my colleagues.					
b.	The *Standards* have been thoroughly discussed by teachers in this school.					
c.	There is a school-wide effort to make changes inspired by the *Standards.*					
d.	Teachers in this school have implemented the *Standards* in their teaching.					
e.	The principal of this school is well-informed about the *Standards.*					
f.	Parents of students in this school are well-informed about the *Standards.*					
g.	The superintendent of this district is well-informed about the *Standards.*					
h.	The School Board is well-informed about the *Standards.*					
i.	Our district is organizing staff development based on the *Standards.*					
j.	Our district has changed how it evaluates teachers based on the *Standards.*					

4. Does your school include students in grades 6 or higher? (Darken one oval.)

- ⬭ Yes, CONTINUE WITH QUESTION 5
- ⬭ No, SKIP TO QUESTION 8

5. Please give the number of sections of each of the following science courses currently offered in your school. (Additional course titles for these categories are shown on the enclosed "List of Course Titles.")

Current number of sections	Code	Course Category
_____	108	Life Science, 6 - 8
_____	109	Earth Science, 6 - 8
_____	110	Physical Science, 6 - 8
_____	111	General Science, 6 - 8
_____	112	Integrated Science, 6 - 8
		Grades 6-8, Other Science Courses
_____		_____
_____		_____
_____		_____

Current number of sections	Code	Course Category
_____	114	Biology, 1st year
_____	115	Biology, 1st year, Applied
_____	116	Biology, 2nd year, AP
_____	117	Biology, 2nd year, Advanced
_____	118	Biology, 2nd year, Other
_____	119	Chemistry, 1st year
_____	120	Chemistry, 1st year, Applied
_____	121	Chemistry, 2nd year, AP
_____	122	Chemistry, 2nd year, Advanced
_____	123	Physics, 1st year
_____	124	Physics, 1st year, Applied
_____	125	Physics, 2nd year, AP
_____	126	Physics, 2nd year, Advanced
_____	127	Physical Science
_____	128	Astronomy/Space Science*
_____	129	Geology*
_____	130	Meteorology*
_____	131	Oceanography/Marine Science*
_____	132	Earth Science, 1st year
_____	133	Earth Science, 1st year, Applied
_____	134	Earth Science, 2nd year, Advanced/Other
_____	135	General Science
_____	136	Environmental Science
_____	137	Coordinated Science
_____	138	Integrated Science
		Grades 9-12, Other Science Courses
_____		_____
_____		_____
_____		_____

* NOTE: A course that includes substantial content from two or more of the earth sciences should be listed under code 132, 133, 134, or 135.

6. Please give the code number of any science courses offered this year that will **not** be offered next year. If all will be offered next year, darken this oval ⬭ and continue with question 7. Otherwise, list the code number of courses that will not be offered:

_____ _____ _____ _____ _____

PLEASE DO NOT WRITE IN THIS AREA

[SERIAL]

7. Which of the following best describes the way science classes at your school are scheduled? (Darken one oval.)

a. All or most classes meet five days per week for one year.
b. All or most classes meet five days per week for one semester.
c. All or most classes meet three days one week and two days the next week for one year.

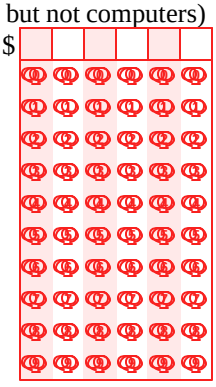
d. Other arrangement; on a separate page, please give a brief written description of how often classes meet and the number of minutes in each class session.

Please enter the number of minutes each class meets per session in the spaces provided to the right, then darken the corresponding oval in each column: (Please enter your answer as a 3-digit number; e.g., if 30 minutes, enter 030.)

8. How much money was spent on science equipment and consumable supplies in this school during the most recently completed budget year? Provide your answer as a ***whole dollar amount***. (If you don't know the exact amounts, please provide your best estimates.) Please enter your answers in the spaces provided, then darken the corresponding oval in each column. Please right justify your answers; e.g., enter $125 as | | | | 1 | 2 | 5 |

a. Science Equipment (non-consumable, non-perishable items such as microscopes, scales, etc., but not computers)

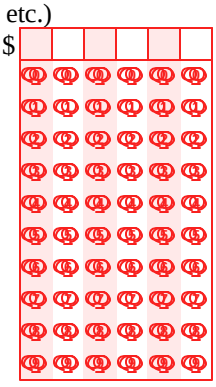
$



If this is an estimate, please darken this oval:

b. Consumable Science Supplies (materials that must continually be replenished such as chemicals, glassware, batteries, etc.)

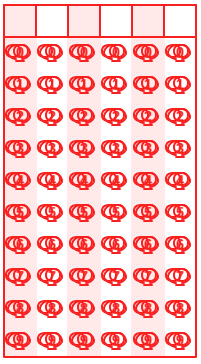
$



If this is an estimate, please darken this oval:

c. Science Software

$



If this is an estimate, please darken this oval:

9. In your opinion, how great a problem is each of the following for science instruction **in your school as a whole**? (Darken one oval on each line.)

		Not a Significant Problem	Somewhat of a Problem	Serious Problem
a.	Facilities	1	2	3
b.	Funds for purchasing equipment and supplies	1	2	3
c.	Materials for individualizing instruction	1	2	3
d.	Access to computers	1	2	3
e.	Appropriate computer software	1	2	3
f.	Student interest in science	1	2	3
g.	Student reading abilities	1	2	3
h.	Student absences	1	2	3
i.	Teacher interest in science	1	2	3
j.	Teacher preparation to teach science	1	2	3
k.	Time to teach science	1	2	3
l.	Opportunities for teachers to share ideas	1	2	3

Question 9 continues on next page...

9. *continued*

		Not a Significant Problem	Somewhat of a Problem	Serious Problem
m.	In-service education opportunities	①	②	③
n.	Interruptions for announcements, assemblies, other school activities	①	②	③
o.	Large classes	①	②	③
p.	Maintaining discipline	①	②	③
q.	Parental support for education	①	②	③

10. In your opinion, how great a problem is each of the following for science instruction **in your school as a whole**? (Darken one oval on each line.)

		Not a Significant Problem	Somewhat of a Problem	Serious Problem
a.	State and/or district curriculum frameworks	①	②	③
b.	State and/or district testing policies and practices	①	②	③
c.	Importance that the school places on science	①	②	③
d.	Public attitudes toward science reform at this school	①	②	③
e.	Conflict between science reform efforts at this school and other school/district reform efforts	①	②	③
f.	Time available for teachers to plan and prepare lessons	①	②	③
g.	Time available for teachers to work with other teachers during the school year	①	②	③
h.	Time available for teacher professional development	①	②	③
i.	System of managing instructional resources at the district or school level (e.g., distributing science materials, refurbishing materials)	①	②	③

Question 11 is being asked of all science teachers in the sample. If you received a Science Teacher Questionnaire in addition to this School Science Program Questionnaire, please darken this oval ① and SKIP TO QUESTION 12.

11a. How familiar are you with the *National Science Education Standards*, published by the National Research Council? (Darken one oval.)

① Not at all familiar, SKIP TO QUESTION 12
② Somewhat familiar
③ Fairly familiar
④ Very familiar

11b. 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
①	②	③	④	⑤

12. If you have an email address, please write it here: _____

13. When did you complete this questionnaire? _____ / _____ / _____
Month Day Year

Please make a photocopy of this questionnaire and keep it in case the original is lost in the mail. Please return the original to:

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

THANK YOU!

FOR OFFICE USE ONLY
Please do not write in this area.

Table SPQ 1
Titles of Science Program Questionnaire Representatives

	Percent of Representatives					
	Elementary Schools		Middle Schools		High Schools	
Science department chair	9	(2.0)	29	(3.1)	64	(4.0)
Science lead teacher	18	(2.8)	22	(3.6)	11	(2.0)
Teacher	48	(3.9)	62	(3.9)	51	(3.4)
Principal	28	(3.6)	12	(2.4)	6	(1.6)
Assistant principal	3	(0.9)	1	(0.3)	2	(0.6)
Other	18	(3.1)	8	(2.5)	6	(2.0)

Table SPQ 2.1
Implementation of Various Programs/Practices in Elementary Schools

	Percent of Schools					
	Not Used		Used		Don't Know/Not Applicable	
School-based management	28	(3.6)	62	(3.9)	11	(2.1)
Common daily planning period for members of the science department	66	(3.2)	16	(2.3)	18	(2.9)
Common workspace for members of the science department	61	(3.2)	17	(2.5)	21	(2.8)
Teachers *formally* designated and serving as science lead teachers	60	(4.2)	32	(3.9)	8	(2.2)
Teachers provided with release time to help other teachers in the school/district	72	(3.5)	21	(3.0)	7	(2.0)
Interdisciplinary teams of teachers who share the same students	39	(3.7)	52	(3.8)	9	(2.1)
Students assigned to science classes by ability	89	(1.9)	6	(1.5)	5	(1.5)
Use of vocational/technical applications in science instruction	54	(3.8)	31	(3.2)	14	(2.8)
Elementary or middle school students pulled out from self contained classes for remedial instruction in science	88	(2.6)	7	(1.8)	6	(2.0)
Elementary or middle school students pulled out from self contained classes for enrichment in science	81	(2.7)	13	(2.1)	5	(2.0)
Elementary or middle school students receiving instruction from science specialists *in addition to* their regular teacher	83	(2.8)	15	(2.8)	1	(0.8)
Elementary or middle school students receiving instruction from science specialists *instead of* their regular teacher	87	(2.7)	12	(2.6)	1	(0.8)
Science courses offered by telecommunications	89	(2.5)	5	(1.9)	6	(1.7)
Students going to another K–12 school for science courses	97	(1.4)	1	(0.6)	2	(1.2)
Students going to a college or university for science courses	86	(2.6)	2	(0.8)	12	(2.5)
Integration of science subjects	31	(3.2)	67	(3.3)	2	(1.0)

Table SPQ 2.2
Implementation of Various Programs/Practices in Middle Schools

	Percent of Schools					
	Not Used		Used		Don't Know/Not Applicable	
School-based management	19	(3.1)	58	(3.6)	23	(3.2)
Common daily planning period for members of the science department	71	(3.5)	20	(3.1)	8	(2.4)
Common workspace for members of the science department	61	(3.7)	27	(3.2)	12	(3.2)
Teachers *formally* designated and serving as science lead teachers	61	(3.9)	30	(3.8)	8	(2.7)
Teachers provided with release time to help other teachers in the school/district	74	(3.4)	14	(2.6)	12	(2.6)
Interdisciplinary teams of teachers who share the same students	33	(3.7)	61	(3.7)	5	(2.1)
Students assigned to science classes by ability	79	(2.9)	18	(2.5)	2	(1.6)
Use of vocational/technical applications in science instruction	45	(4.3)	46	(4.4)	9	(3.0)
Elementary or middle school students pulled out from self contained classes for remedial instruction in science	76	(3.0)	16	(2.4)	7	(2.1)
Elementary or middle school students pulled out from self contained classes for enrichment in science	81	(2.5)	11	(1.9)	8	(2.3)
Elementary or middle school students receiving instruction from science specialists *in addition to* their regular teacher	84	(2.7)	12	(2.6)	4	(1.3)
Elementary or middle school students receiving instruction from science specialists *instead of* their regular teacher	83	(3.2)	12	(3.0)	5	(1.8)
Science courses offered by telecommunications	88	(2.9)	6	(1.8)	7	(2.4)
Students going to another K–12 school for science courses	96	(1.9)	1	(0.6)	3	(1.8)
Students going to a college or university for science courses	82	(3.2)	7	(1.3)	11	(3.0)
Integration of science subjects	41	(3.6)	56	(3.7)	3	(1.5)

Table SPQ 2.3
Implementation of Various Programs/Practices in High Schools

	Percent of Schools					
	Not Used		Used		Don't Know/Not Applicable	
School-based management	23	(2.7)	58	(3.2)	19	(2.3)
Common daily planning period for members of the science department	76	(3.3)	21	(3.2)	3	(1.2)
Common workspace for members of the science department	56	(3.0)	40	(3.2)	4	(1.6)
Teachers *formally* designated and serving as science lead teachers	69	(3.2)	25	(3.1)	5	(1.8)
Teachers provided with release time to help other teachers in the school/district	77	(3.1)	15	(2.6)	8	(2.0)
Interdisciplinary teams of teachers who share the same students	67	(3.8)	28	(3.9)	4	(1.5)
Students assigned to science classes by ability	53	(3.2)	47	(3.2)	0	(0.2)
Use of vocational/technical applications in science instruction	36	(2.7)	60	(2.7)	4	(1.0)
Elementary or middle school students pulled out from self contained classes for remedial instruction in science	40	(4.1)	12	(1.9)	48	(3.8)
Elementary or middle school students pulled out from self contained classes for enrichment in science	41	(4.0)	10	(1.8)	49	(3.6)
Elementary or middle school students receiving instruction from science specialists *in addition to* their regular teacher	52	(3.8)	7	(1.2)	41	(3.5)
Elementary or middle school students receiving instruction from science specialists *instead of* their regular teacher	52	(3.5)	7	(1.4)	41	(3.3)
Science courses offered by telecommunications	85	(2.2)	10	(2.0)	5	(1.2)
Students going to another K–12 school for science courses	91	(1.7)	4	(1.1)	5	(1.2)
Students going to a college or university for science courses	67	(2.9)	28	(2.7)	5	(1.4)
Integration of science subjects	62	(3.4)	33	(3.2)	4	(1.5)

Table SPQ 3.1
Opinions of Elementary School Science Program Representatives Regarding NRC's *Standards* for Science Curriculum, Instruction, and Assessment

	Percent of Representatives									
	Strongly Disagree		Disagree		No Opinion		Agree		Strongly Agree	
I am prepared to explain the NRC *National Science Education Standards* to my colleagues	20	(3.3)	37	(3.7)	16	(2.7)	23	(3.0)	3	(1.4)
The *Standards* have been thoroughly discussed by teachers in this school	26	(3.7)	47	(3.9)	9	(1.8)	17	(2.9)	1	(0.6)
There is a school-wide effort to make changes inspired by the *Standards*	12	(2.6)	36	(3.3)	18	(3.0)	29	(3.5)	5	(1.3)
Teachers in this school have implemented the *Standards* in their teaching	9	(2.5)	24	(3.3)	27	(3.5)	33	(3.6)	6	(1.6)
The principal of this school is well informed about the *Standards*	10	(2.7)	21	(3.1)	40	(3.7)	24	(3.3)	5	(1.4)
Parents of students in this school are well informed about the *Standards*	24	(3.7)	44	(4.3)	24	(3.1)	8	(1.7)	0	(0.4)
The superintendent of this district is well-informed about the *Standards*	7	(2.1)	13	(2.5)	53	(3.6)	21	(3.0)	6	(1.8)
The School Board is well-informed about the *Standards*	8	(2.2)	20	(3.2)	56	(3.6)	12	(2.2)	3	(1.4)
Our district is organizing staff development based on the *Standards*	12	(2.5)	22	(3.0)	33	(3.4)	27	(3.2)	7	(1.6)
Our district has changed how it evaluates teachers based on the *Standards*	16	(3.1)	25	(3.0)	48	(3.9)	9	(2.1)	2	(1.1)

Table SPQ 3.2
Opinions of Middle School Science Program Representatives Regarding NRC's *Standards* for Science Curriculum, Instruction, and Assessment

	Percent of Representatives									
	Strongly Disagree		Disagree		No Opinion		Agree		Strongly Agree	
I am prepared to explain the NRC *National Science Education Standards* to my colleagues	20	(3.3)	29	(3.0)	28	(3.7)	20	(3.2)	3	(1.5)
The *Standards* have been thoroughly discussed by teachers in this school	29	(4.1)	36	(3.9)	14	(2.2)	19	(3.3)	3	(0.8)
There is a school-wide effort to make changes inspired by the *Standards*	11	(2.1)	29	(3.6)	22	(3.4)	31	(3.8)	8	(1.6)
Teachers in this school have implemented the *Standards* in their teaching	7	(1.7)	21	(2.9)	33	(3.8)	33	(3.7)	6	(0.9)
The principal of this school is well informed about the *Standards*	8	(1.9)	23	(3.5)	50	(4.0)	15	(2.4)	4	(1.0)
Parents of students in this school are well informed about the *Standards*	19	(3.1)	42	(3.8)	33	(3.8)	5	(1.4)	1	(0.4)
The superintendent of this district is well-informed about the *Standards*	10	(2.2)	14	(2.6)	57	(3.7)	13	(2.4)	6	(1.7)
The School Board is well-informed about the *Standards*	12	(2.3)	22	(3.5)	55	(3.6)	9	(2.2)	3	(0.8)
Our district is organizing staff development based on the *Standards*	13	(2.6)	21	(3.2)	38	(3.6)	21	(2.9)	7	(1.1)
Our district has changed how it evaluates teachers based on the *Standards*	18	(3.3)	20	(2.8)	53	(3.7)	5	(1.1)	4	(1.6)

Table SPQ 3.3
Opinions of High School Science Program Representatives Regarding NRC's *Standards* for Science Curriculum, Instruction, and Assessment

	Percent of Representatives									
	Strongly Disagree		Disagree		No Opinion		Agree		Strongly Agree	
I am prepared to explain the NRC *National Science Education Standards* to my colleagues	19	(2.5)	29	(2.6)	21	(2.6)	26	(3.2)	4	(0.9)
The *Standards* have been thoroughly discussed by teachers in this school	27	(3.1)	38	(3.0)	15	(2.8)	17	(2.3)	3	(0.9)
There is a school-wide effort to make changes inspired by the *Standards*	17	(2.3)	28	(2.8)	20	(3.1)	29	(3.1)	7	(2.3)
Teachers in this school have implemented the *Standards* in their teaching	14	(2.0)	20	(2.2)	29	(3.9)	32	(3.5)	6	(2.3)
The principal of this school is well informed about the *Standards*	13	(1.9)	21	(2.2)	41	(3.7)	21	(2.7)	3	(0.8)
Parents of students in this school are well informed about the *Standards*	26	(2.9)	43	(3.2)	25	(2.7)	5	(1.1)	0	(0.3)
The superintendent of this district is well-informed about the *Standards*	17	(2.7)	17	(2.1)	45	(3.3)	15	(1.9)	6	(2.3)
The School Board is well-informed about the *Standards*	22	(3.1)	22	(2.5)	44	(3.5)	10	(2.5)	2	(0.5)
Our district is organizing staff development based on the *Standards*	23	(2.9)	25	(2.2)	26	(2.9)	19	(2.2)	7	(2.4)
Our district has changed how it evaluates teachers based on the *Standards*	25	(3.1)	30	(2.6)	35	(3.8)	6	(1.1)	4	(2.3)

There is no table for SPQ 4.

Table SPQ 5.1
Schools Offering Various Science Courses in Grades 6–8

	Percent of Schools	
Life Science, 6–8	48	(3.2)
Earth Science, 6–8	37	(3.1)
Physical Science, 6–8	36	(3.0)
General Science, 6–8	41	(3.3)
Integrated Science, 6–8	24	(3.0)

Table SPQ 5.2
Schools Offering Various Science Courses in Grades 9–12

	Percent of Schools	
Biology, 1st year	38	(2.2)
Biology, 1st year, Applied	12	(1.7)
Biology, 2nd year, AP	11	(1.4)
Biology, 2nd year, Advanced	19	(1.8)
Biology, 2nd year, Other	10	(1.5)
Chemistry, 1st year	37	(2.2)
Chemistry, 1st year, Applied	5	(0.7)
Chemistry, 2nd year, AP	9	(1.0)
Chemistry, 2nd year, Advanced	7	(0.9)
Physics, 1st year	33	(2.3)
Physics, 1st year, Applied	5	(0.9)
Physics, 2nd year, AP	6	(0.7)
Physics, 2nd year, Advanced	2	(0.4)
Physical Science	19	(1.4)
Astronomy/Space Science	7	(1.1)
Geology	3	(0.7)
Meteorology	1	(0.4)
Oceanography/Marine Science	4	(0.7)
Earth Science, 1st year	15	(1.6)
Earth Science, 1st year, Applied	3	(1.2)
Earth Science, 2nd year, Advanced/Other	1	(0.3)
General Science	9	(1.5)
Environmental Science	16	(1.8)
Coordinated Science	2	(0.9)
Integrated Science	6	(0.8)

There is no table for SPQ 6.

Table SPQ 7
Scheduling of Science Classes

	Percent of Schools					
	Elementary Schools		Middle Schools		High Schools	
All or most classes meet five days per week for one year	76	(4.8)	81	(2.5)	54	(3.7)
All or most classes meet five days per week for one semester	6	(2.4)	7	(1.8)	24	(3.2)
All or most classes meet three days one week and two days the next week for one year	5	(3.4)	5	(1.0)	12	(1.7)
Other Arrangements	13	(4.2)	8	(2.7)	10	(2.0)

Table SPQ 8
Median Amount of Money Spent per Year by Schools on Science Equipment and Consumable Supplies

	Median Amount		
	Elementary Schools	Middle Schools	High Schools
Science Equipment	$ 250	$ 400	$ 1,000
Consumable Science Supplies	$ 250	$ 400	$ 1,500
Science Software	$ 0	$ 0	$ 100

Table SPQ 9.1
Science Program Representatives' Opinions of Problems for Elementary School Science Instruction

	Percent of Programs					
	Not a Significant Problem		Somewhat of a Problem		Serious Problem	
Facilities	42	(3.6)	38	(3.3)	20	(3.0)
Funds for purchasing equipment and supplies	24	(3.0)	41	(3.4)	35	(3.6)
Materials for individualizing instruction	28	(3.3)	45	(3.7)	27	(3.2)
Access to computers	45	(3.5)	38	(3.5)	17	(2.9)
Appropriate computer software	22	(3.1)	45	(3.8)	33	(3.5)
Student interest in science	66	(4.1)	30	(3.9)	4	(1.8)
Student reading abilities	45	(3.6)	44	(3.4)	11	(2.2)
Student absences	73	(3.3)	23	(3.0)	4	(1.4)
Teacher interest in science	51	(3.5)	42	(3.4)	8	(2.0)
Teacher preparation to teach science	36	(3.7)	50	(4.2)	14	(2.7)
Time to teach science	34	(3.1)	46	(3.8)	20	(2.9)
Opportunities for teachers to share ideas	23	(3.1)	53	(3.7)	24	(3.2)
In-service education opportunities	35	(3.4)	51	(3.9)	14	(2.6)
Interruptions for announcements, assemblies, other school activities	65	(3.4)	25	(3.0)	10	(2.3)
Large classes	58	(4.0)	35	(3.8)	7	(1.9)
Maintaining discipline	66	(3.3)	28	(3.0)	6	(1.8)
Parental support for education	56	(3.7)	33	(3.2)	12	(2.4)

Table SPQ 9.2
Science Program Representatives' Opinions of Problems for Middle School Science Instruction

	Percent of Programs					
	Not a Significant Problem		Somewhat of a Problem		Serious Problem	
Facilities	40	(4.2)	32	(3.3)	28	(4.0)
Funds for purchasing equipment and supplies	27	(3.2)	41	(4.3)	33	(4.0)
Materials for individualizing instruction	25	(3.2)	50	(4.7)	25	(3.8)
Access to computers	33	(4.0)	49	(4.2)	18	(3.0)
Appropriate computer software	21	(3.2)	39	(3.7)	40	(3.9)
Student interest in science	55	(3.8)	40	(3.7)	4	(1.0)
Student reading abilities	32	(4.2)	50	(4.2)	18	(2.4)
Student absences	61	(3.7)	30	(3.6)	9	(2.0)
Teacher interest in science	78	(3.8)	20	(3.7)	3	(1.2)
Teacher preparation to teach science	66	(4.3)	29	(4.0)	5	(2.1)
Time to teach science	57	(3.5)	31	(4.0)	12	(3.2)
Opportunities for teachers to share ideas	24	(2.9)	56	(3.6)	21	(2.9)
In-service education opportunities	37	(3.7)	50	(4.5)	13	(2.8)
Interruptions for announcements, assemblies, other school activities	51	(3.8)	36	(3.9)	12	(2.7)
Large classes	48	(4.1)	40	(3.9)	12	(1.7)
Maintaining discipline	61	(3.4)	34	(3.4)	6	(1.1)
Parental support for education	45	(3.8)	45	(3.9)	11	(2.1)

Table SPQ 9.3
Science Program Representatives' Opinions of Problems for High School Science Instruction

	Percent of Programs					
	Not a Significant Problem		Somewhat of a Problem		Serious Problem	
Facilities	40	(3.5)	39	(3.7)	21	(3.3)
Funds for purchasing equipment and supplies	31	(2.7)	44	(3.2)	25	(3.4)
Materials for individualizing instruction	30	(2.9)	54	(3.3)	16	(2.1)
Access to computers	34	(2.7)	44	(2.7)	22	(2.7)
Appropriate computer software	23	(2.9)	46	(3.1)	32	(3.0)
Student interest in science	45	(3.8)	47	(3.8)	8	(1.8)
Student reading abilities	30	(3.7)	48	(3.1)	22	(2.4)
Student absences	42	(3.9)	39	(3.6)	20	(2.6)
Teacher interest in science	86	(2.9)	12	(2.5)	2	(1.4)
Teacher preparation to teach science	76	(3.1)	19	(2.3)	5	(2.5)
Time to teach science	61	(2.9)	34	(3.0)	4	(0.9)
Opportunities for teachers to share ideas	29	(3.0)	50	(3.1)	21	(2.8)
In-service education opportunities	43	(3.3)	48	(3.6)	9	(1.4)
Interruptions for announcements, assemblies, other school activities	44	(3.5)	43	(3.5)	13	(1.9)
Large classes	45	(3.7)	41	(3.3)	14	(2.0)
Maintaining discipline	61	(3.3)	34	(3.2)	5	(0.9)
Parental support for education	45	(3.3)	42	(2.9)	13	(2.2)

Table SPQ 10.1
Science Program Representatives' Perceptions of Problems for Elementary School Science Instruction

	Percent of Programs					
	Not a Significant Problem		Somewhat of a Problem		Serious Problem	
State and/or district curriculum frameworks	68	(3.4)	28	(3.2)	5	(1.6)
State and/or district testing policies and practices	52	(3.5)	38	(3.2)	11	(2.1)
Importance that the school places on science	49	(3.7)	41	(3.5)	10	(2.1)
Public attitudes toward science reform at this school	64	(4.1)	32	(4.0)	4	(1.6)
Conflict between science reform efforts at this school and other school/district reform efforts	65	(3.5)	29	(3.3)	6	(1.8)
Time available for teachers to plan and prepare lessons	25	(3.5)	52	(4.1)	24	(3.5)
Time available for teachers to work with other teachers during the school year	18	(2.7)	52	(4.1)	30	(3.5)
Time available for teacher professional development	25	(3.5)	51	(3.6)	24	(3.2)
System of managing instructional resources at the district or school level	43	(3.7)	35	(3.7)	22	(2.8)

Table SPQ 10.2
Science Program Representatives' Perceptions of Problems for Middle School Science Instruction

	Percent of Programs					
	Not a Significant Problem		Somewhat of a Problem		Serious Problem	
State and/or district curriculum frameworks	64	(3.4)	33	(3.5)	3	(0.9)
State and/or district testing policies and practices	52	(3.7)	39	(3.7)	9	(1.4)
Importance that the school places on science	55	(4.2)	37	(4.2)	8	(2.2)
Public attitudes toward science reform at this school	70	(3.9)	27	(4.1)	3	(1.1)
Conflict between science reform efforts at this school and other school/district reform efforts	78	(2.8)	19	(2.9)	3	(0.8)
Time available for teachers to plan and prepare lessons	34	(3.2)	48	(4.2)	18	(3.5)
Time available for teachers to work with other teachers during the school year	16	(2.5)	55	(4.1)	29	(3.9)
Time available for teacher professional development	23	(2.7)	59	(3.8)	18	(3.0)
System of managing instructional resources at the district or school level	38	(4.3)	42	(4.4)	20	(3.6)

Table SPQ 10.3
Science Program Representatives' Perceptions of Problems for High School Science Instruction

	Percent of Programs					
	Not a Significant Problem		Somewhat of a Problem		Serious Problem	
State and/or district curriculum frameworks	59	(3.0)	35	(3.0)	7	(1.6)
State and/or district testing policies and practices	45	(3.1)	42	(3.3)	13	(1.9)
Importance that the school places on science	69	(3.0)	26	(3.0)	5	(1.1)
Public attitudes toward science reform at this school	68	(3.0)	26	(2.8)	6	(1.4)
Conflict between science reform efforts at this school and other school/district reform efforts	78	(2.6)	18	(2.3)	4	(1.0)
Time available for teachers to plan and prepare lessons	39	(3.6)	47	(3.6)	15	(2.1)
Time available for teachers to work with other teachers during the school year	14	(3.1)	58	(3.3)	28	(2.8)
Time available for teacher professional development	27	(2.8)	59	(3.4)	14	(2.1)
System of managing instructional resources at the district or school level	47	(3.5)	38	(3.1)	15	(2.5)

Table SPQ 11
Science Program Representatives' Familiarity with and Agreement with Overall Vision of NRC *Standards*

	Percent of Teachers					
	Elementary Schools		Middle Schools		High Schools	
How familiar are you with the *National Science Education Standards*, published by the National Research Council?						
Not at all familiar	34	(4.1)	36	(4.5)	36	(3.7)
Somewhat familiar	37	(4.0)	39	(4.5)	35	(3.2)
Fairly familiar	21	(3.6)	16	(2.9)	18	(2.2)
Very familiar	8	(2.1)	9	(2.6)	11	(2.7)
Please indicate the extent of your agreement with the overall vision of science education described in the *National Science Education Standards*?[†]						
Strongly Disagree	3	(1.9)	0	(0.1)	0	(0.3)
Disagree	2	(1.5)	5	(2.8)	4	(1.2)
No Opinion	23	(4.2)	33	(6.1)	30	(4.3)
Agree	66	(4.5)	56	(5.2)	59	(4.5)
Strongly Agree	6	(2.1)	6	(1.7)	7	(1.5)

[†] These analyses included only those representatives indicating they were at least somewhat familiar with the *Standards.*