Science

Teacher Background Questionnaire

2000

Grade 4

Part III-A: Science Preparation

There are 7 questions in this section.

QK070729

1. Counting this year, how many years have you taught science in public or private schools?

   Ⓐ Less than 3 years

   Ⓑ 3-5 years

   Ⓒ 6-9 years

   Ⓓ 10-20 years

   Ⓔ More than 20 years

QK070721

2. During the past two years, have you taken college or university courses or participated in professional development activities in any of the following? Fill in **all** ovals that apply.

	College or University Course(s)	Workshops Lasting More than 1 Day	Workshops Lasting 1 Day or Less	None	
a. Methods of teaching science	Ⓐ	Ⓑ	Ⓒ	Ⓓ	QK070722
b. Biology/life science	Ⓐ	Ⓑ	Ⓒ	Ⓓ	QK070723
c. Chemistry	Ⓐ	Ⓑ	Ⓒ	Ⓓ	QK070724
d. Physics	Ⓐ	Ⓑ	Ⓒ	Ⓓ	QK070725
e. Earth science	Ⓐ	Ⓑ	Ⓒ	Ⓓ	QK070726
f. Other types of science courses	Ⓐ	Ⓑ	Ⓒ	Ⓓ	QK070727

WO001025

3. During the past five years, have you taken courses or participated in professional development activities in any of the following areas? Fill in **all** ovals that apply.

a. Use of computers for data acquisition (probeware, scientific instrumentation)	Ⓐ	WO001026
b. Use of computers for data analysis (databases, spreadsheets, graphing software)	Ⓐ	WO001027
c. Laboratory management or safety	Ⓐ	WO001029
d. Integrated science instruction (integrating strands of life, physical, and earth sciences)	Ⓐ	WO001030

HE002600

4. During the last year, how much time in total have you spent in professional development workshops or seminars in science or science education? Include attendance at professional meetings and conferences, district-sponsored workshops, and external workshops.

Ⓐ None

Ⓑ Less than 6 hours

Ⓒ 6-15 hours

Ⓓ 16-35

Ⓔ More than 35 hours

HE002602

5. During the last two years, how many college or university courses have you taken in science or science education?

Ⓐ None

Ⓑ One

Ⓒ Two

Ⓓ Three

Ⓔ Four or more

WO001031

6. Do you belong to one or more professional organizations related to science?

   Ⓐ Yes

   Ⓑ No

QK070728

7. Over the past 12 months, **approximately** how much of your own money have you spent on materials and equipment for instruction in your science classes?

   Ⓐ None

   Ⓑ $1-$25

   Ⓒ $26-$50

   Ⓓ $51-$100

   Ⓔ $101-$150

   Ⓕ $151-$250

   Ⓖ More than $250

Part III-B: Science Instructional Information

There are 14 questions in this section.

Questions 1 through 8. These questions refer to your science instruction in general.

HE002414

1. About how often do your science students do each of the following? Fill in **one** oval on each line.

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever	
a. Read a science textbook	Ⓐ	Ⓑ	Ⓒ	Ⓓ	HE002415
b. Read a book or magazine about science	Ⓐ	Ⓑ	Ⓒ	Ⓓ	HE002416
c. Discuss science in the news	Ⓐ	Ⓑ	Ⓒ	Ⓓ	HE002417
d. Work with other students on a science activity or project	Ⓐ	Ⓑ	Ⓒ	Ⓓ	HE002418
e. Give an oral science report	Ⓐ	Ⓑ	Ⓒ	Ⓓ	HE002419
f. Prepare a written science report	Ⓐ	Ⓑ	Ⓒ	Ⓓ	HE002420
g. Do hands-on activities or investigations in science	Ⓐ	Ⓑ	Ⓒ	Ⓓ	HE002421
h. Talk about measurements and results from students' hands-on activities	Ⓐ	Ⓑ	Ⓒ	Ⓓ	HE002422
i. Take a science test or quiz	Ⓐ	Ⓑ	Ⓒ	Ⓓ	HE002423

HE002426

2. When you teach science, about how often do you do each of the following? Fill in **one** oval on each line.

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever	
a. Do a science demonstration	Ⓐ	Ⓑ	Ⓒ	Ⓓ	HE002428
b. Show a science videotape or science television program	Ⓐ	Ⓑ	Ⓒ	Ⓓ	HE002429
c. Read to students from the science textbook	Ⓐ	Ⓑ	Ⓒ	Ⓓ	ID110404

HE002431

3. About how often do your science students go on a science field trip?

   Ⓐ 3 or more times a year

   Ⓑ 1 or 2 times a year

   Ⓒ Never or hardly ever

HE002435

4. Think about your plans for your science instruction during the entire year. About how much emphasis will you give to each of the following objectives for your students? Fill in **one** oval on each line.

	Heavy Emphasis	**Moderate Emphasis**	**Little or No Emphasis**	
a. Knowing science facts and terminology	Ⓐ	Ⓑ	Ⓒ	HE002436
b. Understanding key science concepts	Ⓐ	Ⓑ	Ⓒ	HE002437
c. Developing science problem-solving skills	Ⓐ	Ⓑ	Ⓒ	HE002438
d. Learning about the relevance of science to society and technology	Ⓐ	Ⓑ	Ⓒ	HE002439
e. Knowing how to communicate ideas in science effectively	Ⓐ	Ⓑ	Ⓒ	HE002440
f. Developing laboratory skills and techniques	Ⓐ	Ⓑ	Ⓒ	HE002441
g. Developing students' interest in science	Ⓐ	Ⓑ	Ⓒ	HE002442
h. Developing data analysis skills	Ⓐ	Ⓑ	Ⓒ	HE002443
i. Using technology as a scientific tool	Ⓐ	Ⓑ	Ⓒ	HE002444

HE002445

5. Do you ever assign individual or group science projects or investigations in school that take a week or more?

   Ⓐ Yes

   Ⓑ No

HE002446

6. How often do you use each of the following to assess student progress in science? Fill in **one** oval on each line.

	Once or Twice a Week	Once or Twice a Month	Once per Grading Period	Once or Twice a Year	Never or Hardly Ever
a. Multiple-choice tests	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
b. Short or long written responses (e.g., a phrase or sentence; or several sentences or paragraphs)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
c. Laboratory notebooks or journals	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ

HE002447

HE002448

HE002454

HE002458

7. Which best describes the availability of computers for use by your science students?

Ⓐ None available

Ⓑ One within the classroom

Ⓒ Two or three within the classroom

Ⓓ Four or more within the classroom

Ⓔ Available in a computer laboratory but difficult to access or schedule

Ⓕ Available in a computer laboratory and easy to access or schedule

HE002459

8. How do you use computers for instruction in science?

Ⓐ Drill and practice

Ⓑ Playing science/learning games

Ⓒ Simulations and modeling

Ⓓ Data analysis and other applications

Ⓔ Word processing

Ⓕ I do not use computers for science instruction.

Questions 9 through 13. Please answer these questions about each of the science classes listed on the front cover. One column is provided for each class. However, if your responses to all of these questions are the same for more than one class, record your answers for these classes in one column and grid the class period numbers for which your responses apply at the top of the column. If you teach one class of students all day, this should be called class period "1" on the front cover and throughout this section.

Fill in **one** oval in each column for each question. Then complete **Question 14** as directed.

	COLUMN 1	COLUMN 2
For which class period(s) do **all** of the following responses apply? →	① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨	① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
HE002412		
9. Are students assigned to this class by ability?	9.	9.
A Yes	Ⓐ	Ⓐ
B No	Ⓑ	Ⓑ
HE002461		
10. If students are assigned by ability, which of the following best describes the science ability level of the students in this class?	10.	10.
A Students are not assigned by ability.	Ⓐ	Ⓐ
B Primarily high ability	Ⓑ	Ⓑ
C Primarily average ability	Ⓒ	Ⓒ
D Primarily low ability	Ⓓ	Ⓓ
E Widely mixed ability	Ⓔ	Ⓔ

COLUMN 3	COLUMN 4	COLUMN 5
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨	① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨	① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
9.	9.	9.
Ⓐ	Ⓐ	Ⓐ
Ⓑ	Ⓑ	Ⓑ
10.	10.	10.
Ⓐ	Ⓐ	Ⓐ
Ⓑ	Ⓑ	Ⓑ
Ⓒ	Ⓒ	Ⓒ
Ⓓ	Ⓓ	Ⓓ
Ⓔ	Ⓔ	Ⓔ

	COLUMN 1	COLUMN 2

HE002463

11. In this class, about how much time do you spend on each of the following areas of science? Fill in **one** oval on each line.

	11. A lot	Some	Little	None	11. A lot	Some	Little	None
A Life science	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓐ	Ⓑ	Ⓒ	Ⓓ
B Earth science	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓐ	Ⓑ	Ⓒ	Ⓓ
C Physical science	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓐ	Ⓑ	Ⓒ	Ⓓ

HE002464

12. Which of the following best describes the space where this class is taught?

	12.	12.
A A classroom with no access to a laboratory or a water source	Ⓐ	Ⓐ
B A classroom with access to a water source only	Ⓑ	Ⓑ
C A classroom with access to a laboratory only	Ⓒ	Ⓒ
D A laboratory with water source	Ⓓ	Ⓓ

HE002476

13. About how much time do you expect a student in this class to spend doing science homework **each week**?

	13.	13.
A None	Ⓐ	Ⓐ
B 1/2 hour	Ⓑ	Ⓑ
C 1 hour	Ⓒ	Ⓒ
D 2 hours	Ⓓ	Ⓓ
E More than 2 hours	Ⓔ	Ⓔ

COLUMN 3	COLUMN 4	COLUMN 5
11.	11.	11.
A lot Some Little None	A lot Some Little None	A lot Some Little None
Ⓐ Ⓑ Ⓒ Ⓓ	Ⓐ Ⓑ Ⓒ Ⓓ	Ⓐ Ⓑ Ⓒ Ⓓ
Ⓐ Ⓑ Ⓒ Ⓓ	Ⓐ Ⓑ Ⓒ Ⓓ	Ⓐ Ⓑ Ⓒ Ⓓ
Ⓐ Ⓑ Ⓒ Ⓓ	Ⓐ Ⓑ Ⓒ Ⓓ	Ⓐ Ⓑ Ⓒ Ⓓ
12.	12.	12.
Ⓐ	Ⓐ	Ⓐ
Ⓑ	Ⓑ	Ⓑ
Ⓒ	Ⓒ	Ⓒ
Ⓓ	Ⓓ	Ⓓ
13.	13.	13.
Ⓐ	Ⓐ	Ⓐ
Ⓑ	Ⓑ	Ⓑ
Ⓒ	Ⓒ	Ⓒ
Ⓓ	Ⓓ	Ⓓ
Ⓔ	Ⓔ	Ⓔ

14. For each of the science class periods indicated on the front cover, please fill in the oval for the class period and, using the boxes provided, print the number of students in that class.

    Please print legibly with a No. 2 pencil. Numbers should be written clearly in the center of the boxes and should not touch the sides. Using one number per box, fill in every box. For example, 9 students would be written as: 

Class period ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ Number of students: ☐☐

Class period ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ Number of students: ☐☐

Class period ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ Number of students: ☐☐

Class period ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ Number of students: ☐☐

Class period ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ Number of students: ☐☐