



Science Classroom Organization and Instruction Teacher Questionnaire

**2018
Grade 4
(Pilot)**

Pilot

The following questions ask about the organization of your classroom for science instruction. If you teach more than one fourth-grade class, please choose a single class to use as the basis for answering the questions about classroom organization.

Pilot

VH240113

1. Which best describes your role in teaching science to this class? Select **one** circle.

- Ⓐ I do not teach science to this class.
- Ⓑ I teach all or most subjects, including science.
- Ⓒ The only subject I teach is science.
- Ⓓ We team teach, and I have primary responsibility for teaching science.

VH261160

2. How many students are in this class? Enter the number of students.

VH704560

3. In a typical week, how much time do you spend teaching science to the students in this class? Write in the hours and minutes.

_____ hours and _____ minutes per week

VH240114

4. Are students assigned to this class by achievement level?

- Ⓐ Yes
- Ⓑ No

VH241164

5. How often do you use each of the following methods to assess student progress in science? Select **one** circle in each row.

| | Never or hardly ever | Once or twice a month | Once or twice a week | Almost every day | |
|---|-------------------------|-------------------------|-------------------------|-------------------------|----------|
| a. Multiple-choice tests | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VH241165 |
| b. Short written responses (e.g., a phrase or sentence) | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VH241166 |
| c. Long written responses (e.g., several sentences or paragraphs) | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VH241169 |
| d. Performance-based assessments | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VH241168 |
| e. Group projects | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VH241167 |

VH639433

6. In this class, about how much time do you spend on each of the following areas of science? Select **one** circle in each row.

| | No time | Very little time | Some time | Quite a bit of time | A lot of time | |
|-------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|----------|
| a. Life science | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | <input type="radio"/> E | VH639434 |
| b. Earth and space science | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | <input type="radio"/> E | VH639436 |
| c. Physical science | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | <input type="radio"/> E | VH639435 |
| d. Engineering and technology | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | <input type="radio"/> E | VH639437 |

7. About how often do your science students do each of the following activities? Select **one** circle in each row.

| | Never | About once or twice a year | About once or twice a month | About once or twice a week | Every day or almost every day | |
|---|-------|----------------------------------|-----------------------------------|----------------------------------|-------------------------------------|----------|
| a. Work with other students on a science activity or project | (A) | (B) | (C) | (D) | (E) | VH639589 |
| b. Write about science (e.g., papers, reports, or student science journals) | (A) | (B) | (C) | (D) | (E) | VH639600 |
| c. Watch you do a science activity | (A) | (B) | (C) | (D) | (E) | VH639856 |
| d. Talk about the measurements and results from their hands-on activities | (A) | (B) | (C) | (D) | (E) | VH639594 |
| e. Discuss the kinds of problems that engineers can solve (e.g., how to build a bridge or how to collect energy from the Sun) | (A) | (B) | (C) | (D) | (E) | VH639597 |
| f. Figure out different ways to solve a science problem | (A) | (B) | (C) | (D) | (E) | VH639846 |
| g. Present what they have learned about science | (A) | (B) | (C) | (D) | (E) | VH639593 |

8. In your science class this year, how much emphasis have you devoted to teaching your students each of the following skills? Select **one** circle in each row.

| | No emphasis | Very little emphasis | Some emphasis | Quite a bit of emphasis | A lot of emphasis | |
|--|-------------|----------------------|---------------|-------------------------|-------------------|----------|
| a. Making observations of natural phenomena (e.g., making measurements) | (A) | (B) | (C) | (D) | (E) | VH641163 |
| b. Making predictions based on prior experimental observations | (A) | (B) | (C) | (D) | (E) | VH641166 |
| c. Creating models of scientific principles (e.g., a graphic, manipulative, or demonstration that illustrates the principle) | (A) | (B) | (C) | (D) | (E) | VH641167 |
| d. Reading data in tables or charts to draw conclusions about hypotheses | (A) | (B) | (C) | (D) | (E) | VH641169 |
| e. Deciding which tools would be most appropriate to gather data | (A) | (B) | (C) | (D) | (E) | VH641172 |
| f. Designing and testing a solution to a problem | (A) | (B) | (C) | (D) | (E) | VH641174 |

9. Thinking about your science class this year, how much emphasis did you place on teaching your students each of the following skills? Select **one** circle in each row.

| | No emphasis | Very little emphasis | Some emphasis | Quite a bit of emphasis | A lot of emphasis | |
|--|-------------|----------------------|---------------|-------------------------|-------------------|----------|
| a. Developing good research questions | (A) | (B) | (C) | (D) | (E) | VH640901 |
| b. Using drawings or models to explain events or phenomena | (A) | (B) | (C) | (D) | (E) | VH640902 |
| c. Coming up with experiments or other tests to answer a scientific question | (A) | (B) | (C) | (D) | (E) | VH640903 |
| d. Organizing data into a chart, graph, or spreadsheet to test a solution | (A) | (B) | (C) | (D) | (E) | VH640906 |
| e. Deciding when to use quantitative versus qualitative data | (A) | (B) | (C) | (D) | (E) | VH640907 |
| f. Generating explanations based on observations and measurements | (A) | (B) | (C) | (D) | (E) | VH640908 |
| g. Evaluating the quality of data | (A) | (B) | (C) | (D) | (E) | VH640909 |
| h. Teaching science ideas to others (e.g., students or teachers) | (A) | (B) | (C) | (D) | (E) | VH640911 |

10. To what extent do you emphasize each of the following objectives in teaching science to your fourth-grade class? Select **one** circle in each row.

| | Not at all | Small extent | Moderate extent | Large extent | |
|--|------------|--------------|-----------------|--------------|----------|
| a. Increasing students' interest in science | (A) | (B) | (C) | (D) | VH241202 |
| b. Increasing awareness of the importance of science in daily life | (A) | (B) | (C) | (D) | VH241203 |
| c. Teaching the iterative process of scientific inquiry | (A) | (B) | (C) | (D) | VH639755 |
| d. Teaching the iterative process of scientific practice | (A) | (B) | (C) | (D) | VH748077 |
| e. Developing problem-solving skills | (A) | (B) | (C) | (D) | VH241197 |
| f. Developing scientific writing skills | (A) | (B) | (C) | (D) | VH241200 |

11. To what extent are the following resources available to you in your school system (including your school and school district)? Select **one** circle in each row.

| | Not at all | Small extent | Moderate extent | Large extent | |
|--|-------------------------|-------------------------|-------------------------|-------------------------|----------|
| a. Science textbooks (print or online) | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VH639521 |
| b. Science magazines and books (print or online) | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VH639522 |
| c. Supplies or equipment for science labs or demonstrations | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VH639523 |
| d. Space to conduct science labs | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VH639525 |
| e. Computers for students' use in class | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VH639532 |
| f. Computer labs | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VH639527 |
| g. Computers for teachers' use | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VH639528 |
| h. Science kits | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VH639531 |
| i. Scientific measurement instruments (e.g., microscopes, thermometers, beakers, or weighing scales) | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | VH639526 |

12. To what extent do you use each of the following technological resources for science instruction? Select one circle in each row.

| | Not at all | Small extent | Moderate extent | Large extent | |
|--|------------|--------------|-----------------|--------------|----------|
| a. Desktop or laptop computer(s) (including Chromebooks) | Ⓐ | Ⓑ | Ⓒ | Ⓓ | VH641307 |
| b. Tablet(s) (e.g., Surface Pro, iPad, Kindle Fire) | Ⓐ | Ⓑ | Ⓒ | Ⓓ | VH641308 |
| c. Online content (e.g., online software, podcasts, or videos) | Ⓐ | Ⓑ | Ⓒ | Ⓓ | VH641309 |
| d. Interactive web spaces or virtual classrooms (e.g., websites where students can interact and share class materials) | Ⓐ | Ⓑ | Ⓒ | Ⓓ | VH641310 |
| e. Smart board(s) | Ⓐ | Ⓑ | Ⓒ | Ⓓ | VH641311 |

13. In this school year, how often do you meet with students one-on-one to give feedback on their work and evaluate their progress in science?

- Ⓐ Never or hardly ever
- Ⓑ A few times a year
- Ⓒ Once or twice a month
- Ⓓ Once or twice a week
- Ⓔ Every day or almost every day

14. In this school year, how often do you do each of the following activities with individual students to evaluate their progress in science? Select **one** circle in each row.

| | Never | About once or twice a year | About once or twice a month | About once or twice a week | Every day or almost every day | |
|--|-------|----------------------------|-----------------------------|----------------------------|-------------------------------|----------|
| a. Regularly discuss each student's current level of performance with them | (A) | (B) | (C) | (D) | (E) | VH639634 |
| b. Set goals for specific progress the student would like to make | (A) | (B) | (C) | (D) | (E) | VH639635 |
| c. Discuss progress the student has made toward goals previously set | (A) | (B) | (C) | (D) | (E) | VH639636 |
| d. Determine how to adjust your teaching strategies to meet the student's current learning needs | (A) | (B) | (C) | (D) | (E) | VH639637 |

15. Suppose your students did very well on their last science test. How likely do you think each of the following explanations is in this situation? Select **one** circle in each row.

| | Not at all likely | Not likely | Somewhat likely | Quite likely | Extremely likely | |
|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|----------|
| a. My students did well because they studied and were prepared. | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | <input type="radio"/> E | VH641273 |
| b. My students did well because they put in a lot of effort. | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | <input type="radio"/> E | VH641276 |
| c. My students did well because they always do well on tests. | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | <input type="radio"/> E | VH641277 |
| d. My students did well because I taught the concepts well. | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | <input type="radio"/> E | VH641279 |
| e. My students did well because they guessed well on the test. | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | <input type="radio"/> E | VH641281 |
| f. My students did well because they are just good in science. | <input type="radio"/> A | <input type="radio"/> B | <input type="radio"/> C | <input type="radio"/> D | <input type="radio"/> E | VH641284 |

16. In this school year, did your school offer any of the following supplemental activities? Select **one** answer choice in each row.

| | Yes | No | |
|---|-------------------------|-------------------------|----------|
| a. Opportunities for students to work together to solve problems in their community or the world | <input type="radio"/> A | <input type="radio"/> B | VH641334 |
| b. Opportunities for students to engage in group science activities | <input type="radio"/> A | <input type="radio"/> B | VH641338 |
| c. Opportunities for students to use scientific instruments (e.g., thermometers, microscopes, or telescopes) | <input type="radio"/> A | <input type="radio"/> B | VH641339 |
| d. Opportunities for students to participate in science outreach programs (e.g., partnerships with colleges, museums, or foundations) | <input type="radio"/> A | <input type="radio"/> B | VH641341 |