



63 **A. Mathematics and Science Instruction**

62 1. Please provide your opinion about each of the following statements regarding mathematics and science instruction.  
61 (Darken one oval in each section on each line.)  
60

|   | Mathematics       |          |            |       |                | Science           |          |            |       |                |
|---|-------------------|----------|------------|-------|----------------|-------------------|----------|------------|-------|----------------|
|   | Strongly Disagree | Disagree | No Opinion | Agree | Strongly Agree | Strongly Disagree | Disagree | No Opinion | Agree | Strongly Agree |
| 56 a. Students generally learn best in classes with students of similar abilities.                  | 1                 | 2        | 3          | 4     | 5              | 1                 | 2        | 3          | 4     | 5              |
| 55 b. I am knowledgeable about current national standards in this content area.                     | 1                 | 2        | 3          | 4     | 5              | 1                 | 2        | 3          | 4     | 5              |
| 54 c. I feel well-prepared to support teachers in the implementation of current national standards. | 1                 | 2        | 3          | 4     | 5              | 1                 | 2        | 3          | 4     | 5              |
| 53 d. I am willing to accept the noise that comes with an active classroom.                         | 1                 | 2        | 3          | 4     | 5              | 1                 | 2        | 3          | 4     | 5              |
| 52 e. Encouraging student questions is more important than eliciting correct answers.               | 1                 | 2        | 3          | 4     | 5              | 1                 | 2        | 3          | 4     | 5              |

44 2. Please provide your opinion about each of the following statements.  
43 (Darken one oval on each line.)  
42

|   | Strongly Disagree | Disagree | No Opinion | Agree | Strongly Agree |
|---|-------------------|----------|------------|-------|----------------|
| 41 a. Vocational/technology education should have a strong mathematics and science component.   | 1                 | 2        | 3          | 4     | 5              |
| 40 b. Students who are not interested in science/mathematics/technology careers should be able to opt out of mathematics and science courses after the 10th or 11th grade.            | 1                 | 2        | 3          | 4     | 5              |
| 39 c. Schools need to provide students who are not interested in science/mathematics/technology careers course options in mathematics and science for all of their high school years. | 1                 | 2        | 3          | 4     | 5              |
| 38 d. Specialized courses in mathematics and science should be available for college-bound students.  | 1                 | 2        | 3          | 4     | 5              |

31 3. How would you describe your school's progress in moving toward excellence in mathematics and science education?  
30 (Darken one oval on each line.)  
29

|                           | Quite far from ideal | Beginning to improve | Well along in improving | Approaching ideal |   |   |   |
|---------------------------|----------------------|----------------------|-------------------------|-------------------|---|---|---|
| 27 a. Mathematics program | 1                    | 2                    | 3                       | 4                 | 5 | 6 | 7 |
| 26 b. Science program     | 1                    | 2                    | 3                       | 4                 | 5 | 6 | 7 |

24 4. Compared to 5 years ago, which best describes the achievement of students in this school? (Darken one oval on each line.)  
23

|                   | Much worse | Somewhat worse | About the same | Somewhat improved | Much improved |
|-------------------|------------|----------------|----------------|-------------------|---------------|
| 20 a. Mathematics | 1          | 2              | 3              | 4                 | 5             |
| 19 b. Science     | 1          | 2              | 3              | 4                 | 5             |

16 5. Please rate each of the following in terms of its importance for effective mathematics and science instruction.  
15 (Darken one oval in each section on each line.)  
14

|  | Mathematics   |                    |                  |                | Science       |                    |                  |                |
|--|---------------|--------------------|------------------|----------------|---------------|--------------------|------------------|----------------|
|  | Not Important | Somewhat Important | Fairly Important | Very Important | Not Important | Somewhat Important | Fairly Important | Very Important |
| 10 a. Provide concrete experience before abstract concepts.  | 1             | 2                  | 3                | 4              | 1             | 2                  | 3                | 4              |
| 9 b. Develop students' conceptual understanding of the subject.  | 1             | 2                  | 3                | 4              | 1             | 2                  | 3                | 4              |
| 8 c. Take students' prior understanding of subject matter into account when planning curriculum and instruction. | 1             | 2                  | 3                | 4              | 1             | 2                  | 3                | 4              |

Question 5 continues on next page...

## Mathematics

## Science

5. (continued)

|  | Not Important | Somewhat Important | Fairly Important | Very Important | Not Important | Somewhat Important | Fairly Important | Very Important |
|--|---------------|--------------------|------------------|----------------|---------------|--------------------|------------------|----------------|
| d. Make connections to other disciplines.                                      | 1             | 2                  | 3                | 4              | 1             | 2                  | 3                | 4              |
| e. Have students work in cooperative learning groups.                          | 1             | 2                  | 3                | 4              | 1             | 2                  | 3                | 4              |
| f. Have students participate in appropriate hands-on activities.               | 1             | 2                  | 3                | 4              | 1             | 2                  | 3                | 4              |
| g. Engage students in inquiry-oriented activities.                             | 1             | 2                  | 3                | 4              | 1             | 2                  | 3                | 4              |
| h. Use calculators.  | 1             | 2                  | 3                | 4              | 1             | 2                  | 3                | 4              |
| i. Use computers.  | 1             | 2                  | 3                | 4              | 1             | 2                  | 3                | 4              |
| j. Engage students in applications of subject matter in a variety of contexts. | 1             | 2                  | 3                | 4              | 1             | 2                  | 3                | 4              |
| k. Use performance-based assessment.   | 1             | 2                  | 3                | 4              | 1             | 2                  | 3                | 4              |
| l. Use portfolios.   | 1             | 2                  | 3                | 4              | 1             | 2                  | 3                | 4              |
| m. Use informal questioning to assess student understanding.                   | 1             | 2                  | 3                | 4              | 1             | 2                  | 3                | 4              |

6. Please rate the effect of each of the following on *mathematics* instruction in your school. (Darken one oval on each line.)

|  | Inhibits effective instruction | Neutral or mixed | Encourages effective instruction | N/A Don't Know |   |    |
|--|--------------------------------|------------------|----------------------------------|----------------|---|----|
| a. State and/or district curriculum frameworks.                                  | 1                              | 2                | 3                                | 4              | 5 | NA |
| b. State and/or district testing policies and practices.                         | 1                              | 2                | 3                                | 4              | 5 | NA |
| c. District/school grading policies and practices.                               | 1                              | 2                | 3                                | 4              | 5 | NA |
| d. District/school structures for recognizing and rewarding teachers.            | 1                              | 2                | 3                                | 4              | 5 | NA |
| e. Counseling department policies and practices.                                 | 1                              | 2                | 3                                | 4              | 5 | NA |
| f. College placement tests.  | 1                              | 2                | 3                                | 4              | 5 | NA |
| g. Quality of available instructional materials.                                 | 1                              | 2                | 3                                | 4              | 5 | NA |
| h. Access to calculators for mathematics instruction.                            | 1                              | 2                | 3                                | 4              | 5 | NA |
| i. Access to computers for mathematics instruction.                              | 1                              | 2                | 3                                | 4              | 5 | NA |
| j. Funds for purchasing equipment and supplies for mathematics.                  | 1                              | 2                | 3                                | 4              | 5 | NA |
| k. System of managing instructional resources at the district or school level.   | 1                              | 2                | 3                                | 4              | 5 | NA |
| l. Time available for teachers to plan and prepare lessons.                      | 1                              | 2                | 3                                | 4              | 5 | NA |
| m. Time available for teachers to work with other teachers.                      | 1                              | 2                | 3                                | 4              | 5 | NA |
| n. Time available for teacher professional development.                          | 1                              | 2                | 3                                | 4              | 5 | NA |
| o. Importance that the school places on mathematics.                             | 1                              | 2                | 3                                | 4              | 5 | NA |
| p. Consistency of mathematics reform efforts with other school/district reforms. | 1                              | 2                | 3                                | 4              | 5 | NA |
| q. Public attitudes toward reform.   | 1                              | 2                | 3                                | 4              | 5 | NA |

7. Please rate the effect of each of the following on *science* instruction in your school. (Darken one oval on each line.)

|   | Inhibits effective instruction | Neutral or mixed | Encourages effective instruction | N/A Don't Know |   |    |
|---|--------------------------------|------------------|----------------------------------|----------------|---|----|
| a. State and/or district curriculum frameworks.                       | 1                              | 2                | 3                                | 4              | 5 | NA |
| b. State and/or district testing policies and practices.              | 1                              | 2                | 3                                | 4              | 5 | NA |
| c. District/school grading policies and practices.                    | 1                              | 2                | 3                                | 4              | 5 | NA |
| d. District/school structures for recognizing and rewarding teachers. | 1                              | 2                | 3                                | 4              | 5 | NA |
| e. Counseling department policies and practices.                      | 1                              | 2                | 3                                | 4              | 5 | NA |
| f. College placement tests.   | 1                              | 2                | 3                                | 4              | 5 | NA |
| g. Quality of available instructional materials.                      | 1                              | 2                | 3                                | 4              | 5 | NA |

Question 7 continues on next page...

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7. (continued)

|  | Inhibits effective instruction |   | Neutral or mixed |   | Encourages effective instruction | N/A Don't Know |
|--|--------------------------------|---|------------------|---|----------------------------------|----------------|
| h. Access to calculators for science instruction.                              | 1                              | 2 | 3                | 4 | 5                                | NA             |
| i. Access to computers for science instruction.                                | 1                              | 2 | 3                | 4 | 5                                | NA             |
| j. Funds for purchasing equipment and supplies for science.                    | 1                              | 2 | 3                | 4 | 5                                | NA             |
| k. System of managing instructional resources at the district or school level. | 1                              | 2 | 3                | 4 | 5                                | NA             |
| l. Time available for teachers to plan and prepare lessons.                    | 1                              | 2 | 3                | 4 | 5                                | NA             |
| m. Time available for teachers to work with other teachers.                    | 1                              | 2 | 3                | 4 | 5                                | NA             |
| n. Time available for teacher professional development.                        | 1                              | 2 | 3                | 4 | 5                                | NA             |
| o. Importance that the school places on science.                               | 1                              | 2 | 3                | 4 | 5                                | NA             |
| p. Consistency of science reform efforts with other school/district reforms.   | 1                              | 2 | 3                | 4 | 5                                | NA             |
| q. Public attitudes toward reform.   | 1                              | 2 | 3                | 4 | 5                                | NA             |

Questions 8-9 refer to the NSF-supported Local Systemic Change (LSC) program. Please refer to the cover letter accompanying this questionnaire for information about the LSC project activities and designated materials in your district.

8. To what extent:  
(Darken one oval on each line.)

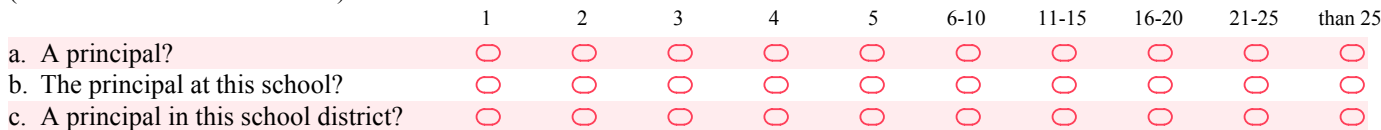
|   | Not at all |   |   |   | To a great extent | N/A Don't Know |
|---|------------|---|---|---|-------------------|----------------|
| a. Are you familiar with the LSC project in your district?              | 1          | 2 | 3 | 4 | 5                 | DK             |
| b. Have you been involved in LSC project activities?                    | 1          | 2 | 3 | 4 | 5                 | DK             |
| c. Have parents voiced support for the LSC approach in the classroom?   | 1          | 2 | 3 | 4 | 5                 | DK             |
| d. Have parents voiced opposition to the LSC approach in the classroom? | 1          | 2 | 3 | 4 | 5                 | DK             |

9. Considering only teachers responsible for teaching the subject(s) targeted by the LSC, approximately what percent of the teachers in your school: (Darken one oval on each line.)



### B. Principal Information

10. Including this year, how many years have you been:  
(Darken one oval on each line.)



### C. School Characteristics

11. In what type of community is this school located? (Darken one oval.)

- Rural
- Suburban
- Town or Small City
- Urban

12. This school includes the following grades:



**Thank you very much for participating in this survey!**

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