

# NIST Summer Institute: Post-survey for Non-participants [insert school year]

Please take the time to complete this survey on your experience as a teacher during the current school year. Your feedback is truly valuable to the administrators of the NIST Summer Institute program and the data will be kept strictly confidential. Data will be used solely for the overall evaluation of the program and program improvement purposes.

The survey should take 20 minutes to complete.

If you have any questions, please contact **Kara Robinson** at NIST. She can be reached by phone at (301) 9752471 or by email at [kara.robinson@nist.gov](mailto:kara.robinson@nist.gov).

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## Teacher Consent Form

As part of the evaluation of the NIST Summer Institute, NIST is conducting this survey to document the teaching practices and beliefs of program applicants.

Participation in this activity is voluntary, but the information gained from the survey will be of great value to NIST as it refines its program to best meet the needs of middle school science teachers. Information collected through the survey will be strictly confidential and used solely for research purposes. Only aggregate findings will be included in the final report. No findings will be connected to individual teachers. The information collected will not be shared with other school personnel or used as part of a performance evaluation.

**1. If you agree to participate in the survey, please check the following box and complete the survey.**

☐ **I have read the information on this screen and understand what my participation involves. I consent to participating in the survey as part of the NIST evaluation.**

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2. Please enter your ID number in the space below (your ID number can be found in the email with the link to this survey).

ID Number:

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## NIST Summer Institute: Post-survey for Non-participants

**3. In what grade did you spend the majority of your time teaching science during the current school year? (*Select one.*)**

☐ 6th grade

☐ 7th grade

☐ 8th grade

**4. If you taught science to more than one grade during the current school year, select all additional grades that apply.**

☐ 6th grade

☐ 7th grade

☐ 8th grade

☐ I did not teach science to any additional grades

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## 5. Which subject areas did you cover in your science classes during the current school year? (Mark one response on each line.)

|                  | Subject covered       | Subject not covered   |
|------------------|-----------------------|-----------------------|
| a. Biology       | <input type="radio"/> | <input type="radio"/> |
| b. Earth Science | <input type="radio"/> | <input type="radio"/> |
| c. Space Science | <input type="radio"/> | <input type="radio"/> |
| d. Physics       | <input type="radio"/> | <input type="radio"/> |
| e. Chemistry     | <input type="radio"/> | <input type="radio"/> |
| f. Weather       | <input type="radio"/> | <input type="radio"/> |
| g. Metrology*    | <input type="radio"/> | <input type="radio"/> |

**\*Metrology:** is the science of measurement, embracing both experimental and theoretical determinations at any level of uncertainty in any field of science and technology. Scientific or fundamental metrology concerns the establishment of quantity systems, unit systems, units of measurement, the development of new measurement methods, realization of measurement standards and the transfer of traceability from these standards to users in society. Applied or industrial metrology concerns the application of measurement science to manufacturing and other processes and their use in society, ensuring the suitability of measurement instruments, their calibration and quality control of measurements. Legal metrology concerns regulatory requirements of measurements and measuring instruments for the protection of health, public safety, the environment, enabling taxation, protection of consumers and fair trade.

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## 6. How prepared are you to link scientific concepts to realworld applications for each of the subject areas listed below. (Mark one response on each line.)

|                  | Not prepared                                                                                                                       | Somewhat prepared       | Moderately prepared     | Very well prepared      |
|------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|-------------------------|
| a. Biology       | <input type="radio"/> n <input checked="" type="radio"/> m <input type="radio"/> l <input type="radio"/> k <input type="radio"/> j | <input type="radio"/> n | <input type="radio"/> n | <input type="radio"/> n |
| b. Earth Science | <input type="radio"/> m <input checked="" type="radio"/> l <input type="radio"/> j                                                 | <input type="radio"/> m | <input type="radio"/> m | <input type="radio"/> m |
| c. Space Science | <input type="radio"/> n <input checked="" type="radio"/> m <input type="radio"/> l <input type="radio"/> k <input type="radio"/> j | <input type="radio"/> n | <input type="radio"/> n | <input type="radio"/> n |
| d. Physics       | <input type="radio"/> m <input checked="" type="radio"/> l <input type="radio"/> j                                                 | <input type="radio"/> m | <input type="radio"/> m | <input type="radio"/> m |
| e. Chemistry     | <input type="radio"/> n <input checked="" type="radio"/> m <input type="radio"/> l <input type="radio"/> k <input type="radio"/> j | <input type="radio"/> n | <input type="radio"/> n | <input type="radio"/> n |
| f. Weather       | <input type="radio"/> m <input checked="" type="radio"/> l <input type="radio"/> j                                                 | <input type="radio"/> m | <input type="radio"/> m | <input type="radio"/> m |
| g. Metrology*    | <input type="radio"/> n <input checked="" type="radio"/> m <input type="radio"/> l <input type="radio"/> k <input type="radio"/> j | <input type="radio"/> n | <input type="radio"/> n | <input type="radio"/> n |

**\*Metrology:** is the science of measurement, embracing both experimental and theoretical determinations at any level of uncertainty in any field of science and technology. Scientific or fundamental metrology concerns the establishment of quantity systems, unit systems, units of measurement, the development of new measurement methods, realization of measurement standards and the transfer of traceability from these standards to users in society. Applied or industrial metrology concerns the application of measurement science to manufacturing and other processes and their use in society, ensuring the suitability of measurement instruments, their calibration and quality control of measurements. Legal metrology concerns regulatory requirements of measurements and measuring instruments for the protection of health, public safety, the environment, enabling taxation, protection of consumers and fair trade.

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## 7. How important are each of the following teaching practices to you as a science teacher.

(Mark one response on each line.)

|                                                                                                                   | Not Important                    | Somewhat Important               | Moderately Important             | Very Important        |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------|----------------------------------|-----------------------|
| a. Using realworld examples to introduce science concepts                                                         | <input type="radio"/>            | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> |
| <input type="radio"/> b. Using realworld examples to motivate student interest in science                         | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| <input checked="" type="radio"/> c. Connecting new science concepts to previous science concepts                  | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| <input type="radio"/> d. Creating analogies for scientific concepts                                               | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| <input checked="" type="radio"/> e. Addressing students' misconceptions                                           | <input type="radio"/>            | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> |
| <input type="radio"/> f. Having students collect data                                                             | <input type="radio"/>            | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> |
| <input checked="" type="radio"/> g. Providing direct instruction to help students understand a scientific concept | <input type="radio"/>            | <input type="radio"/>            | <input checked="" type="radio"/> | <input type="radio"/> |
| <input type="radio"/> h. Asking students to compare the results of an experiment to their original predictions    | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| <input type="radio"/> i. Asking students to explain their conclusions and/or reasoning                            | <input type="radio"/>            | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> |
| <input checked="" type="radio"/> j. Increasing student interest in science careers                                | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| <input type="radio"/> k. Increasing student interest in the role of science in everyday life                      | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |

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**8. What is your level of preparedness to use the following teaching practices in your classroom. (Mark one response on each line.)**

|                                                                                                                | Not prepared                     | Somewhat prepared                | Moderately prepared              | Very well prepared               |
|----------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| a. Using realworld examples to introduce science concepts                                                      | <input type="radio"/>            | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/>            |
| <input type="radio"/> b. Using realworld examples to motivate student interest in science                      | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input checked="" type="radio"/> |
| <input checked="" type="radio"/> c. Connecting new science concepts to previous science concepts               | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |
| <input type="radio"/> d. Creating analogies for scientific concepts                                            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |
| e. Addressing students' misconceptions                                                                         | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |
| <input type="radio"/> f. Having students collect data                                                          | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |
| <input type="radio"/> g. Providing direct instruction to help students understand a scientific concept         | <input type="radio"/>            | <input type="radio"/>            | <input checked="" type="radio"/> | <input type="radio"/>            |
| <input type="radio"/> h. Asking students to compare the results of an experiment to their original predictions | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |
| <input type="radio"/> i. Asking students to explain their conclusions and/or reasoning                         | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |
| <input type="radio"/> j. Increasing student interest in science careers                                        | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |
| <input type="radio"/> k. Increasing student interest in the role of science in everyday life                   | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |

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**9. Approximately how often did you have students engage in the following learning activities during the current school year? (Mark one response on each line.)**

|                                                                                                                                      | Weekly                           | Monthly                          | Annually                         | Never                            |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| a. Conduct investigations (e.g., doing lab activities or using manipulatives)                                                        | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |
| b. Consider a realworld problem relevant to the course and develop a plan to address it                                              | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> |
| c. Use technical passages (from news or science journals) to investigate current issues or new developments in science or technology | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |
| d. Listen to guest speakers                                                                                                          | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |
| e. Go on field trips relevant to the curriculum                                                                                      | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |
| f. Investigate possible career opportunities in mathematics, science, or technology                                                  | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |
| g. Design and implement their own scientific investigation                                                                           | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |
| h. Use "stateoftheart" equipment or technologies                                                                                     | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            |

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**10. Consider only science teachers within your school: How often did you do the following with them during the current school year? (Mark one response on each line.)**

|                                                                                                                                     | 12 times a week | 12 times a month | 12 times a year | Never |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------|-----------------|-------|
| a. Discuss general ideas for how to teach specific science concepts                                                                 | m1 j<br>m1 j    | m1 j             | m1 j            |       |
| b. Share a specific science lesson that was very effective for teaching a concept                                                   | m1 j            | m1 j<br>m1 j     | m1 j            |       |
| c. Share strategies for making science accessible to all students                                                                   | m1 j<br>m1 j    | m1 j             | m1 j            |       |
| d. Have my classroom observed by other science teachers to demonstrate how to teach a specific science lesson, activity, or concept | m1 j            | m1 j<br>m1 j     | m1 j            |       |
| e. Demonstrate a specific science lesson, activity, or concept for students in another teacher's classroom                          | m1 j            | m1 j<br>m1 j     | m1 j            |       |

**11. Consider only science teachers outside your school: How often did you do the following with them during the current school year? (Mark one response on each line.)**

|                                                                                                                                     | 12 times a week | 12 times a month | 12 times a year | Never |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------|-----------------|-------|
| a. Discuss general ideas for how to teach specific science concepts                                                                 | m1 j<br>m1 j    | m1 j             | m1 j            |       |
| b. Share a specific science lesson that was very effective for teaching a concept                                                   | m1 j            | m1 j<br>m1 j     | m1 j            |       |
| c. Share strategies for making science accessible to all students                                                                   | m1 j<br>m1 j    | m1 j             | m1 j            |       |
| d. Have my classroom observed by other science teachers to demonstrate how to teach a specific science lesson, activity, or concept | m1 j            | m1 j             | m1 j            |       |
| e. Demonstrate a specific science lesson, activity, or concept for students in another teacher's classroom                          |                 | m1 j             | m1 j            |       |
|                                                                                                                                     |                 | m1 j             | m1 j            |       |
|                                                                                                                                     |                 | m1 j             |                 |       |

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## 12. When you had a science-content question related to your teaching responsibilities

during the current school year, how often did you use the following information sources to obtain answers? (Mark one response on each line.)

|                                                                           | 12 times a week       | 12 times a month      | 12 times a year       | Never                 |
|---------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| a. A teaching colleague within my middle school                           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. A teaching colleague at another middle school                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. A science supervisor from within my school district                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. Someone from a professional science teaching organization (e.g., NSTA) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. A professional scientist of my acquaintance (e.g., a former professor) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f. My school district's science website                                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| g. My state's science website                                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| h. A targeted Google search                                               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| i. A federal agency website (e.g., NSF, NASA, NOAA, NIST)                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| j. Specific science websites (e.g., Why Files, Exploratorium)             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| k. Other                                                                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

13. If you selected "Other" in Question 12, please specify the "Other" information source(s) in the space below:

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**14. Indicate the extent to which you agree or disagree with each of the following statements for the current school year. (Mark one response on each line.)**

|                                                                                                                            | Strongly<br>Disagree  | Disagree              | Agree                 | Strongly<br>Agree     |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| a. The quality of my teaching influences my students' interest in science                                                  |                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> b. The quality of my teaching influences my students' achievement in science                         | <input type="radio"/> |                       |                       | <input type="radio"/> |
| <input type="radio"/> c. I continually find better ways to teach science                                                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. I know how to motivate my students to learn science                                                                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. I influence the quality of science instruction for students outside of my own classroom                                 | <input type="radio"/> |                       |                       | <input type="radio"/> |
| f. I am currently in a position to influence the number of my students that know about sciencerelated careers.             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| g. I am currently in a position to influence the number of my students that find STEM subjects interesting.                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| h. I am currently in a position to influence the number of my students that view science as being relevant to their lives. | <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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If you are not finished with the survey, select the "Previous" button to navigate the survey and complete your responses.

If you are ready to submit your survey now, select the "Done" button. After you submit, you will NOT be able to reenter the survey.