NIST Summer Institute for Middle School Teachers: [insert school year] Pre-Survey

Thank you for selecting the link for the NIST Summer Institute Applicant Survey! Before continuing, please be sure to review the following information about the survey.

The Survey Is Confidential
This survey is being administered by the International and Academic Affairs Office IAAO) at NIST. As such, **your responses to the survey will be strictly confidential and will only be seen by IAAO staff**. Your individual responses will not be made available to either NIST or any of your school personnel. All findings from this survey will be presented in the aggregate.

The Survey Is Voluntary
Participation in the survey is voluntary, but the information gained from your experience and opinions will be of great value to NIST as it refines its program to best meet the needs of middle school science teachers.

There Are No Right or Wrong Answers
There is no right or wrong answer to any of the survey questions; what is most important is that your answers accurately reflect your personal experience and opinions. **Your responses to the survey will in no way impact your eligibility for the program**.

If you have any questions about the survey, please contact Kara Robinson at NIST at kara.robinson@nist.gov or (301) 975-2471.

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

fec 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.

OMB Control No. #06930033
Expiration Date: 07/31/2022

NOTE: This collection of information contains Paperwork Reduction Act (PRA) requirements approved by the Office of Management and Budget (OMB). A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995 unless the information collection has a currently valid OMB Control Number. The approved OMB Control Number for this information collection is 0693-0033. Without this approval, we could not conduct this survey/information collection. Public reporting for this information collection is estimated to be approximately 20 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. All responses to this information collection are voluntary. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the National Institute of Standards and Technology at 100 Bureau Dr Gaithersburg, MD 20899 Attn: Kara Robinson, kara.robinson@nist.gov, 301-975-2471.

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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3. For each of the subject areas listed below, indicate which subjects are covered in your classes in the current school year. *(Mark one response on each line.)*

	Subject covered	Subject not covered
a. Biology		
b. Earth Science		
c. Space Science		
d. Physics		
e. Chemistry		
f. Weather		
g. Metrology*		

***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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4. 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				
b. Earth Science				
c. Space Science				
d. Physics				
e. Chemistry				
f. Weather				
g. Metrology*				

***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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5. What is your <u>level of preparedness</u> to use the following practices in your classroom?

(Mark one response on each line.)

	Not prepared	Somewhat prepared	Moderately prepared	Very well prepared
a. Use realworld examples to introduce science concepts				
b. Use realworld examples to motivate student interest in science				
c. Connect new science concepts to previous science concepts				
d. Create analogies for scientific concepts				
e. Address students' misconceptions				
f. Have students collect data				
g. Provide direct instruction to help students understand a scientific concept				
h. Ask students to compare the results of an experiment to their original predictions				
i. Ask students to explain their conclusions and/or reasoning				
j. Increase student interest in science careers				
k. Increase student interest in the role of science in everyday life				

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6. Approximately how often did you have <u>students</u> 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)				
b. Consider a realworld problem relevant to the course and develop a plan to address it				
c. Use technical passages (from news or science journals) to investigate current issues or new developments in science or technology				
d. Listen to guest speakers				
e. Go on field trips relevant to the curriculum				
f. Investigate possible career opportunities in mathematics, science, or technology				
g. Design and implement their own scientific investigation				
h. Use “stateoftheart” equipment or technologies				

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7. Consider only science teachers <u>within</u> 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				
b. Share a specific science lesson that was very effective for teaching a concept				
c. Share strategies for making science accessible to all students				
d. Have my classroom observed by other science teachers to demonstrate how to teach a specific science lesson, activity, or concept				
e. Demonstrate a specific science lesson, activity, or concept for students in another teacher's classroom				

8. Consider only science teachers <u>outside</u> 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				
b. Share a specific science lesson that was very effective for teaching a concept				
c. Share strategies for making science accessible for all students				

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9. When you had a <u>science content question</u> 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				
b. A teaching colleague at another middle school				
c. A science supervisor from within my school district				
d. Someone from a professional science teaching organization (e.g., NSTA)				
e. A professional scientist of my acquaintance (e.g., a former professor)				
f. My school district's science website				
g. My state's science website				
h. A targeted Google search				
i. A federal agency website (e.g., NSF, NASA, NOAA, NIST)				
j. Specific science websites (e.g., Why Files, Exploratorium)				
k. Other				

10. If you selected "Other" in Question 9, please specify the "Other" information source(s) in the space below:

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11. 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 Disagree	Disagree	Agree	Strongly Agree
a. The quality of my teaching influences my students' interest in science				
b. The quality of my teaching influences my students' achievement in science				
c. I continually find better ways to teach science				
d. I know how to motivate my students to learn science				
e. I influence the quality of science instruction for students outside of my own classroom				
f. I am currently in a position to influence the number of my students that know about sciencerelated careers.				
g. I am currently in a position to influence the number of my students that find STEM subjects interesting.				
h. I am currently in a position to influence the number of my students that view science as being relevant to their lives.				

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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.