NIST Summer Institute
Pre-survey/Program Application

Please take the time to complete this survey on your experience as a teacher during the **[insert school year]** 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 15 minutes to complete.

Completed surveys may be returned to Westat by email, fax, or mail.

By email: Melissabryce@westat.com

By fax: Melissa Bryce (301) 517-4134

By mail: Melissa Bryce, Westat, 1650 Research Blvd.,

TA 2043, Rockville, MD 20850

If you have any questions, please contact **Melissa Bryce** at Westat. She can be reached by phone at (240) 314-2588 or by email at Melissabryce@westat.com.

NOTE: This questionnaire contains collection of information requirements subject to the Paperwork Reduction Act (PRA). Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subject to penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of

Instructions:

- Save this file to your computer's desktop or a non-temporary folder. Click on the box on each line that indicates your response. You can uncheck a response by clicking on the box a second time. There are no limits to the amount of text you can type into the blank spaces below the open-ended questions and you can cut and paste text into this document.

- Note - Your individual survey responses will only be seen by Westat staff. Your individual responses will not be linked with your name in the final report nor will they be shared with your school, school system, or NIST. The final report will provide an overview of the NIST Summer Institute Program.

Name:	

School:	

1. What grade(s) did you teach in the [insert school year] school year? Select one primary grade that you spent the majority of your time teaching during the [insert school year] school year. If you taught more than one grade, select all additional grades that apply.

		Primary Grade *(Select one)*	Additional Grades *(Select all that apply)*
a.	6th grade	☐ 1	☐ 1
b.	7th grade	☐ 2	☐ 2
c	8th grade	☐ 3	☐ 3

2.

3.

2. What degrees have you earned? *(For <u>each</u> degree type, please mark <u>all</u> that apply.)*

NOTE—Degree options do not include certifications, certificates, endorsements, or licensures. If you have earned a degree in math or science education, mark both Math or Science <u>and</u> Education. Degrees may or may not be related to your teaching career.

Type of degree	Degree field				
	Math	Science	Education	Other	None
a. Bachelor's degree	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
b. Master's degree	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
c. Ph.D.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
d. Ed.D.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
e. Professional degree (e.g., M.D., LPN)	☐	☐ 2	☐ 3	☐ 4	☐ 5
f. Specialist degree	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
g. Other (*specify*): _____	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

3. Are you currently working on a degree?

Yes..... ☐[1] *(Continue with Question 3a)*
No..... ☐[2] *(Go to Question 4)*

3a. What degrees are you *currently* working on? *(For each degree type, please mark all that apply.)*

Type of degree	Degree field				
	Math	Science	Education	Other	None
a. Bachelor's degree	☐[1]	☐[2]	☐[3]	☐[4]	☐[5]
b. Master's degree	☐[1]	☐[2]	☐[3]	☐[4]	☐[5]
c. Ph.D.	☐[1]	☐[2]	☐[3]	☐[4]	☐[5]
d. Ed.D.	☐[1]	☐[2]	☐[3]	☐[4]	☐[5]
e. Professional degree (e.g., M.D., LPN)	☐[1]	☐[2]	☐[3]	☐[4]	☐[5]
f. Specialist degree	☐[1]	☐[2]	☐[3]	☐[4]	☐[5]
g. Other (*specify*): _____	☐[1]	☐[2]	☐[3]	☐[4]	☐[5]

4. Which of the following professional development activities have you participated in during the past three (3) school years? *(Mark all that apply.)*

a. Learning content knowledge related to science..... ☐[1]
b. Learning content knowledge **not** related to science..... ☐[2]

c. Selecting and adapting instructional material..... ☐[3]

d. Using research to inform curriculum development..... ☐[4]

e. Learning strategies for aligning curriculum with standards. ☐[5]

f. Working with diverse and/or minority students, special education students, and/or students with limited English proficiency ☐[6]

g. Developing leadership skills in working with peers..... ☐[7]

h. Developing skills in working with parents, school boards, or others outside of the school ..... ☐[8]

i. Using technology in instruction..... ☐[9]

j. Learning how to use data and statistics..... ☐[10]

k. Other (*specify*): _____ ☐[11]

5. Not counting the NIST Summer Institute, have you participated in any professional development activities in a laboratory, research, or industrial setting in the past 3 years?

Yes..... ☐[1] *(Continue with Question 5a)*

No..... ☐[2] *(Go to Question 6)*

5a. Please provide the following information about any professional development activities in which you participated in the past 3 years:

Name of program	**Sponsoring agency**	**Type of setting** *(e.g., government, industry, university)*	**Year**	**Duration** *(number of days)*

6. **In Column A, indicate how prepared you are to link scientific concepts to real-world applications in each of the subject areas listed below. In Column B, indicate which subject areas you covered in your science classes *during the [insert school year] school year*.**

		Column A Your level of preparedness to link scientific concepts to real-world applications in the following subject areas				**Column B** Subject area covered in your classes in the **[insert school year]** school year	
		Not prepared	**Somewhat prepared**	**Moderately prepared**	**Very well prepared**	**Yes**	**No**
a.	Biology	☐1	☐2	☐3	☐4	☐1	☐2
b.	Earth Science	☐1	☐2	☐3	☐4	☐1	☐2
c.	Space Science	☐1	☐2	☐3	☐4	☐1	☐2
d.	Physics	☐1	☐2	☐3	☐4	☐1	☐2
e.	Chemistry	☐1	☐2	☐3	☐4	☐1	☐2
f.	Weather	☐1	☐2	☐3	☐4	☐1	☐2
g.	Metrology (Measurement Science)	☐1	☐2	☐3	☐4	☐1	☐2
h.	Separation Science[1]	☐1	☐2	☐3	☐4	☐1	☐2

i.	Forensic Topics	☐1	☐2	☐3	☐4	☐1	☐2
j.	Other *(Specify on line)*	☐1	☐2	☐3	☐4	☐1	☐2

_____

7. For each of the following teaching practices, indicate its *importance* to you as a science teacher (Column A) and your *level of preparedness* to use it in the classroom in the [insert school year] school year (Column B). *(On each line, mark one response in Column A and mark one response in Column B.)*

		Column A Importance to you				**Column B** Level of preparedness			
		Not Important	**Somewhat Important**	**Moderately Important**	**Very Important**	**Not prepared**	**Somewhat prepared**	**Moderately prepared**	**Very well prepared**
a.	Use real-world examples to introduce science concepts	☐1	☐2	☐3	☐4	☐1	☐2	☐3	☐4
b.	Use real-world examples to motivate student interest in science	☐1	☐2	☐3	☐4	☐1	☐2	☐3	☐4
c.	Connect new science	☐1	☐2	☐3	☐4	☐1	☐2	☐3	☐4

[1] Processes by which components of a mixture are separated from each other. Example topic areas in Separation Science include chromatography, crystallization, gel electrophoresis, mass spectrometry, etc.

	concepts to previous science concepts							
d.	Create analogies for scientific concepts	☐1	☐2	☐3	☐4	☐1	☐2	☐3	☐4
e.	Address students' misconceptions	☐1	☐2	☐3	☐4	☐1	☐2	☐3	☐4
f.	Have students collect data	☐1	☐2	☐3	☐4	☐1	☐2	☐3	☐4
g.	Provide direct instruction to help students understand a scientific concept	☐1	☐2	☐3	☐4	☐1	☐2	☐3	☐4
h.	Ask students to compare the results of an experiment to their original predictions	☐1	☐2	☐3	☐4	☐1	☐2	☐3	☐4
i.	Ask students to explain their conclusions and/or reasoning	☐1	☐2	☐3	☐4	☐1	☐2	☐3	☐4
j.	Increase student interest in science careers	☐1	☐2	☐3	☐4	☐1	☐2	☐3	☐4
k.	Increase student interest in the role of science in everyday life	☐1	☐2	☐3	☐4	☐1	☐2	☐3	☐4

8. **Approximately how often did you have <u>students</u> engage in the following learning activities during the [insert school year] school year?** ***(Mark one response on each line.)***

	Weekly	Monthly	Annually	Never
a. Conduct investigations (e.g., doing lab activities or using manipulatives)	☐ 1	☐ 2	☐ 3	☐ 4
b. Consider a real-world problem relevant to the course and develop a plan to address it	☐ 1	☐ 2	☐ 3	☐ 4
c. Use technical passages (from news or science journals) to investigate current issues or new developments in science or technology	☐ 1	☐ 2	☐ 3	☐ 4
d. Listen to guest speakers	☐ 1	☐ 2	☐ 3	☐ 4
e. Go on field trips relevant to the curriculum	☐ 1	☐ 2	☐ 3	☐ 4
f. Investigate possible career opportunities in mathematics, science, or technology	☐ 1	☐ 2	☐ 3	☐ 4
g. Design and implement their own scientific investigation	☐ 1	☐ 2	☐ 3	☐ 4
h. Use “state-of-the-art” equipment or technologies	☐ 1	☐ 2	☐ 3	☐ 4

9. **How often did you do each of the following with other <u>science teachers at your school</u> during the [insert school year] school year? *(Mark one response on each line.)***

	Weekly	Monthly	Annually	Never
a. Discuss general ideas for how to teach specific science concepts	☐ 1	☐ 2	☐ 3	☐ 4
b. Share a specific science lesson that was very effective for teaching a concept	☐ 1	☐ 2	☐ 3	☐ 4
c. Share strategies for making science accessible to all students	☐ 1	☐ 2	☐ 3	☐ 4
d. Have my classroom observed by other science teachers to demonstrate how to teach a specific science lesson, activity, or concept	☐ 1	☐ 2	☐ 3	☐ 4
e. Demonstrate a specific science lesson, activity, or concept for	☐ 1	☐ 2	☐ 3	☐ 4

students in another teacher's classroom

10. **When you had a <u>science content question</u> related to your teaching responsibilities during the [insert school year] school year, what information sources did you seek for answers? *(Mark one response on each line.)***

		Weekly	Monthly	Annually	Never
a.	A teaching colleague within my middle school	☐1	☐2	☐3	☐4
b.	A teaching colleague at another middle school	☐1	☐2	☐3	☐4
c.	A science supervisor from within my school district	☐1	☐2	☐3	☐4
d.	Someone from a professional science teaching organization (e.g., MAST, NSTA)	☐1	☐2	☐3	☐4
e.	A professional scientist of my acquaintance (e.g., a former professor)	☐1	☐2	☐3	☐4
f.	My school district's science website	☐1	☐2	☐3	☐4
g.	My state school system's science website	☐1	☐2	☐3	☐4
h.	A targeted Google search	☐1	☐2	☐3	☐4
i.	A federal agency website (e.g., NSF, NASA, NOAA, NIST)	☐1	☐2	☐3	☐4
j.	Specific science websites (e.g., the *Why Files*, the *Exploratorium*)	☐1	☐2	☐3	☐4
k.	Other *(Specify on line)*	☐1	☐2	☐3	☐4

_____

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

		Strongly Disagree	Disagree	Agree	Strongly Agree
a.	The quality of my teaching influenced my students' *interest* in science	☐1	☐2	☐3	☐4
b.	The quality of my teaching influenced my students' *achievement* in science	☐1	☐2	☐3	☐4
c.	I continually found better ways to teach science	☐1	☐2	☐3	☐4
d.	I knew how to motivate my students to learn science	☐1	☐2	☐3	☐4
e.	I was able to effectively supervise the research projects of my students	☐1	☐2	☐3	☐4
f.	I influenced the quality of science instruction for students outside of my own classroom	☐1	☐2	☐3	☐4

12. **How did you become involved with the NIST Summer Institute program?** *(Mark <u>one</u> response.)*

a. Noticed an open invitation and decided to apply..... ☐1

b. Encouraged by a former Summer Institute participant and decided to apply..... ☐2

c. Encouraged/recruited/designated by an administrator (*excluding school principal*) or specialist at the school or district level (e.g., superintendent, curriculum specialist, department head or chair, or science coach) ☐3

d. Encouraged/recruited/designated specifically by my school principal ☐4

e. Encouraged/recruited/designated by local leadership council/curricular

committee or professional development program or organization ☐5

f. Other *(Specify)*_____ ☐6

Thank you!