



## GME Post Implementation Survey for the Teachers 2017

**Based on the needs that you expressed in the Pre- Professional Development Needs Assessment Survey, please take this survey as a way for you to inform us on how this program has met your needs and to alert us to any areas where you feel that we can further help you engage your students in STEM and 21st century skills.**

1. What is the name of your school?

2. What is your name? (mandatory)

3. What are your standard teaching practices for 2017-2018?

	Never	Rarely	Sometimes	Often	Always
Lecture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discussion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Media	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demonstration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Online activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hands on and inquiry based	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Field studies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. This school year, how much emphasis did you put on:

	No emphasis	Little emphasis	Some emphasis	Quite a bit of emphasis	A great deal of emphasis
Outdoor experimental activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fieldwork data collection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lab data collection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Web materials use in the classroom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student lead projects and/ or activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Do students in your classroom have access to computers?

Yes

No

If you answered 'Yes', how much computer time do students have in an average week?

6. Which of the following data sets would you like to have for your science teaching? (Data sets include organized learning materials and visualizations). Please select all that apply.

**Hydrology**

pH

Salinity

Alkalinity

Conductivity

Dissolved Oxygen

Nutrients (nitrate and phosphate)

Air temperature

Water temperature

Ocean color

Turbidity/transparency

**Atmosphere**

Air Temperature

Surface Temperature

- Clouds
- Precipitation
- Barometric Pressure
- Relative humidity
- Aerosols
- Ozone
- Pedosphere / Lithosphere**
- Soil Temperature
- Soil Moisture
- Soil Characteristics (particle size, horizons)
- Infiltration
- Biosphere**
- Green up/down
- Budburst
- Phenological garden
- Macroinvertebrates
- Mosquito

7. What type of professional development do you feel you still need to improve/evolve your science instruction and facilitate your students in the following? Check all that apply.

- Asking questions and defining problems
- Planning and carrying out investigations
- Gathering data from the field
- Downloading data from databases and websites
- Analyzing, and visualizing data
- Interpreting data
- Constructing explanations and designing solutions
- Obtaining and evaluating information
- Communicating information
- Setting up groups for group work
- Engaging in argument from evidence
- Other (please specify)

8. Have you included hands-on or outdoor exploration activities in your teaching during the past year?

- Yes
- No

If yes, please provide an example.

9. Would you still be interested in incorporating more outdoor / field activities in your teaching?

- Yes
- No

10. Have you noticed an improvement in students' attitudes and achievements in science courses after incorporating GLOBE in your classroom?

Yes

No

If yes, please describe.

11. After participating in the professional development provided for GLOBE:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I am confident I can set up and maintain my school GLOBE study site.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident I can integrate Globe Protocols into my required subject matter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident I am able to integrate GLOBE Protocols through facilitating science practices such as student questioning, analysis of student data, and construction of explanations from student's research/projects.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident I can facilitate system approach thinking to analyze complex environment events.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident that I can facilitate student collaboration in teams to solve complex environmental problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident that I can facilitate students in posing appropriate research questions, uploading collected data to the GLOBE website, and to compare their results to those collected by other students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. How do you think GLOBE protocols can best be incorporated into what you are currently teaching?

13. What modifications do you plan to make to better incorporate GLOBE into your classroom?

14. What type of support would help you better incorporate GLOBE in your classroom?

- Professional training
- Dedicated learning materials
- Specific protocols for learning activities
- Facilitating inquiry based activities
- Mentoring from experts
- Other (please specify)

15. Did you get to use NASA resources in your classroom during the school year?

- Yes
- No
- Please explain if necessary:

16. What additional support do you need in order to better incorporate NASA resources in your classroom?

**17. FOR HIGH SCHOOL ONLY**

Please select the degree to which you agree that implementation of GLOBE and participation in MISSION EARTH has supported the following student outcomes:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	N/A - don't know
a. strengthened students' knowledge of science content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	N/A - don't know
b. improved the ability of students to apply scientific practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. strengthened students' 21st Century skills (i.e., communication, collaboration, creativity, & critical thinking)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. increased students' awareness of careers in STEM and Information Communication Technology (ICT)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. increased students' motivation and interest in school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. strengthened students' knowledge in English/Language Arts (e.g. scientific and technical literacy)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. strengthened students' knowledge in Social Studies (geography, history, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. strengthened students' knowledge in Math	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. strengthened students' knowledge in CTE content (beyond science)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. provided other benefits to my students, such as supporting student agency, civic engagement, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

k. Please explain any of your responses further.

