



Guidelines for Collaboration among GLOBE Schools

I - FOUR-STEP PROCESS FOR THE COLLABORATION EXPERIENCE ITSELF

1. FIND: Find a School with Which to Connect

The first step is to thoughtfully select a school with which to collaborate.

A. Connect through a formal phenomenon-based campaign or data collection “challenge”:

- Create a list of potential phenomena you wish your students to explore
- Identify the GLOBE or NASA campaign, phenomenon, or data collection “challenge” that matches one or more of the items on your wish-list
- Identify and connect with the scientist lead(s) of the campaign, phenomenon, or challenge and express your interest in participating — or just sign up on the appropriate GLOBE webpage
- Determine how to implement the relevant resources or protocols; discuss how and when the scientists will be able to engage to assist students; establish a timeline for implementation
- Watch previous webinars and participate in upcoming webinar(s) in which GLOBE protocols and learning activities, and NASA assets related to the chosen campaign, phenomenon, or challenge are identified and discussed
- Identify schools participating in the campaign, phenomenon, or challenge community; then connect with the lead teacher of that school

B. Some tips for selecting a collaboration partner (with or without a formal campaign/challenge):

- To identify school with which to collaborate, use the Find a Project Collaborator tool <https://www.globe.gov/globe-community/find-a-collaboration-partner#email>
- You may filter for schools with similar characteristics, for example:
 - By type of data collected or investigation areas
 - By countries of interest to the students (for example, countries or cultures related to students’ family origin or to events of interest)
 - By grade level
 - By language spoken
- You may also seek out schools that share other features, for example:
 - Schools that have a common interest in the phenomena to be explored (e.g. extreme weather; drought; wildfires; sea-level rise; bud-bursting; etc. — with information available through sources external to GLOBE)
 - Schools in similar or different geographic settings (latitude/longitude; elevation, etc. — all characteristics you can find through the GLOBE Visualization Tool)

2. PREPARE: Prepare Your Students

In order to establish a sense of collaboration and understanding, it is important that students “do their homework” on the collaborating school. They should get to know the school, its location, student populations, history, and culture. They should also have the opportunity to take some responsibility in the exchange. Teachers also have to prepare.

A. Suggestions for what students can do to get to know a collaborating school:

- Student research on the state’s or country’s geography and ecology, including latitude/longitude, elevation, climactic conditions, flora and fauna, etc.
- Student search for matching measurement data, using the GLOBE data visualization tool (<https://www.globe.gov/globe-data/visualize-and-retrieve-data>)
- Student research on the state or country’s culture and economic conditions
- Exploration of classroom languages spoken
- Preparation of questions for discussion with students in the other country

B. Suggestions for supporting authentic engagement:

- Ask students: How do they see themselves getting to know students from another school?
- Have students identify their goals of this collaboration
- Conduct team-building activities to prepare for understanding roles in the exchange and future collaborations
- Clarify up front how the exchange will occur (will all students ask questions, etc.?)

C. Suggestions for teacher preparation:

- Make sure that the school’s page on the GLOBE website is updated,
- Include pictures (no faces) on the webpage
- Make sure teacher’s profile page is up to date and includes a picture

3. IMPLEMENT: Carry out the Exchange

Engage with the collaborating school via Zoom or other strategy, as described under “[Finding a Collaborator](#)”.

- Let students take the lead if possible
- Ensure that students have authentic opportunities to engage, ask questions, and share information
- Promote a team approach to support all students in learning collaboration and communication skills

4. FOLLOW UP: Encourage Reflection and Build Lasting Connections

Follow up with your collaborating school, deepen learning, and support ongoing collaboration.

- A. Have students reflect about learned — both scientifically (data) and culturally (economics, geography, climate)
- B. Explore how students can communicate their experiences of this collaboration (IVSS/SRS)
- C. Establish follow up communication with the collaborating school - Send a “thank you!”
- D. Determine what the next step will be for the collaborating school



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Planning for Collaboration

II - PLANNING NOTES FOR EMBEDDING COLLABORATION INTO CLASSROOM LEARNING

1. DECISIONS TO CONSIDER BEFORE BEGINNING

A. What do you want the students to learn from the experience? What outcomes are you seeking?

- Deeper understanding of science concepts, content, and practices
- Research skills across disciplines
- Cross-cultural understanding (applies across communities and states as well as across countries)
- Building collaboration and teamwork skills, see [“Teamwork Guide”](#)
- Building communication skills, e.g., preparing good questions, taking notes, verbal communication, language skill, if collaborator speaks another language, etc.
- Deeper understanding of geography, as students look at maps and pictures of their collaborators’ communities, and discuss geographic conditions
- Deeper understanding of economics and political science, as student exchange information about their countries

B. Do you anticipate involving the whole class, small groups, or individuals?

C. What technology considerations are there?

D. How long will the collaboration last — just around a particular campaign/challenge? Beyond?

E. How will the student experience be graded?

F. How can other teachers support your efforts?

2. POSSIBLE STEPS (SAMPLE TIMELINE)

Month or week 1	Month or week 1	Month or week 2	Month or week 2	Month or week 2	Month or week 3	Month or week 4	Month or week 5
Teacher chooses phenomena and/or campaign/challenge	Teacher connects with leads of phenomena and/or campaign/challenge	Teacher selects/connects with potential school(s) for collaboration	Students research collaborating school, country, culture	Student contact #1 and participate in research/data	Student contact #2 and participate in research/data	Student contact #3 and participate in research/data	Follow up and Reflection and Next Steps

3. IDEAS FOR FORMAL OR INFORMAL ASSESSMENT

If you want the students to receive grades for the experience, consider breaking the process into specific steps with each step graded separately, using the appropriate criteria. Steps may include:

- A. Process used to find the school and its community, state, or country**
- B. Research on the community, state, or country (characteristics chosen and why; depth and breadth)**
- C. Create questions to ask the collaborating students (appropriateness to the project, e.g., related to data, etc.; cultural sensitivity; language-well crafted)**
- D. Understanding of the science content**
- E. Student research projects with separate project rubric**

4. POSSIBLE INTEGRATION ACROSS THE DISCIPLINES (TO LEVERAGE WHAT EACH CAN OFFER)

Note X's merely suggest possible connections; when the process is implemented, a duplicate table would include real names and activities. Similarly, the disciplines and steps would be edited as needed.

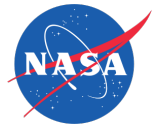
	Examples of Activities/Contribution of Each Discipline				
	The "anchor class" (class in which GLOBE is being implemented)	Social Studies	Science	English/Literacy	Math
Steps (sample)					
Find					
• Finding the school or country	X	X			
Prepare					
• Research on the community, state, or country	X	X			
• Creating questions	X	X		X	
• Rehearsing and/or preparing written communication	X			X	
Implement					
• Use of technology	X		X		X
• Communication	X			X	
• Teamwork	X	X			
• Content	X	X	X		X
Follow Up					
• Reflection on learning	X			X	
• Analyzing comparative data (data literacy)	X		X		X
• Explaining results	X		X		X
• Writing up results	X		X	X	
• Writing follow up questions	X		X	X	
• Writing follow up communications	X			X	



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Guidelines for Interscholastic and International Connections among GLOBE Schools using GLOBE (Finding a Collaborator)

This document is being provided to GLOBE teachers who want to connect with other GLOBE classrooms. By following the steps below, you will be able to connect to teachers in other schools anywhere in the world. Once two teachers are connected, then students can begin to connect with other students across the partnering classrooms.

1. OVERVIEW OF STEPS:

A. Finding a Prospective Collaborator

- Go to the Find a Project Collaborator page to partner with another teacher, using the search criteria as described below.

B. Connecting with a Teacher

- To connect with a teacher, start by making a “friend” request.
- After your friend accepts the friend request, you will receive an email with a link to your friend’s collaboration page on the GLOBE.gov. On your friend’s collaboration page there will be a ‘Send Email’ button and you can email your new friend directly through the GLOBE.gov website.
- Once the two teachers are friends and connected by email, the teachers then organize communication among their students across classrooms using Zoom, Skype or other tools.

2. STEPS FOR FINDING AND CONNECTING WITH ANOTHER GLOBE CLASSROOM

A. NAVIGATE to the ‘Community’ tab and CLICK ‘Find a Project Collaborator’

The screenshot shows the GLOBE PROGRAM website interface. The header includes the GLOBE logo, the text "THE GLOBE PROGRAM", and the tagline "A Worldwide Science and Education Program". A navigation bar contains links for "About", "Join", "Get Trained", "Do GLOBE", "GLOBE Data", "Community", "News & Events", and "Support". The "Community" menu is open, displaying a list of options: "GLOBE Countries & Member's Map", "Partners & Country Coordinators", "GLOBE Working Groups", "Find a Project Collaborator", "GLOBE Communities", "Alumni", "Trainers", "Teachers", "GLOBE International STEM Network (GISN) & Blog", "Community Blogs", "US Partner Forum", "Collaborating Organizations", and "GLOBE Classrooms". A prominent announcement box in the foreground reads: "Registration for the 2018 GLE/22nd Annual Meeting is Now Open! The GLOBE Implementation Office (GIO) is excited to announce that the registration for the 2018 GLOBE Learning Expedition (GLE) and the 22nd Annual Meeting in Killarney, Ireland, is now open! More >". The background image shows a stone castle with a rainbow in the sky and people sitting on a grassy field.

- To search for a partnering teacher, you can select from a variety of filters to identify a teacher meeting your filter criteria. Criteria include:
 - User type
 - Language
 - Country
 - Grade level
 - Collaboration group
 - Whether data has been entered
 - Investigation areas and Protocols of interest

Apply My Profile Settings

For the drop-down menu filters, multiple items can be selected by using CTRL-click.

User Type:

- Any User Types
- STEM Network (scientists)
- Teachers
- Alumni

Who Speaks:

- Any Language
- Arabic (العربية)
- Chinese (漢語)
- Croatian (hrvatski)

Investigation Areas/Protocols

Search for community members that are interested in: any protocol checked ▾

- Atmosphere
 - Aerosols
 - Barometric Pressure
 - Precipitation
 - Surface Ozone
 - Water Vapor
 - Air Temperature
 - Clouds
 - Relative Humidity
 - Surface Temperature
 - Wind
- Biosphere
 - Arctic Bird Migration
 - Fire Fuel
 - Land Cover Classification
 - Biometry
 - Green-Up / Green-Down
 - Lilac Phenology

From:

- Ireland
- Israel
- Italy
- Japan

Who Teaches at:

- Any Grade level
- Primary: K-6
- Secondary: 7-12
- Higher Ed: 13+

Is a Member of:

- Any Collaboration Group
- 2014 GLE - India
- 2014 GLOBE Learning Expedition
- 2017 Kilimanjaro Learning Expedition

Has Entered Data:

Doesn't Matter ▾

B. Then CLICK 'Apply Filter'

Apply My Profile Settings

For the drop-down menu filters, multiple items can be selected by using CTRL-click.

User Type:

- Any User Types
- STEM Network (scientists)
- Teachers
- Alumni

Who Speaks:

- Any Language
- Arabic (العربية)
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Investigation Areas/Protocols

Search for community members that are interested in: any protocol checked ▾

- Atmosphere
 - Aerosols
 - Barometric Pressure
 - Precipitation
 - Surface Ozone
 - Water Vapor
 - Air Temperature
 - Clouds
 - Relative Humidity
 - Surface Temperature
 - Wind
- Biosphere
 - Arctic Bird Migration
 - Fire Fuel
 - Land Cover Classification
 - Biometry
 - Green-Up / Green-Down
 - Lilac Phenology

From:

- Ireland
- Israel
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Who Teaches at:

- Any Grade level
- Primary: K-6
- Secondary: 7-12
- Higher Ed: 13+

Is a Member of:

- Any Collaboration Group
- 2014 GLE - India
- 2014 GLOBE Learning Expedition
- 2017 Kilimanjaro Learning Expedition

Has Entered Data:

Doesn't Matter ▾

- C. Next you will be taken the search results page.** Here you can select a person's name or organization to learn more about them. If you do not find a good match, you can modify your search criteria. To modify your search criteria, CLICK the grey triangle.

D. If you do find a good match and would like to collaborate, CLICK 'Request Friend'.

First	Last	Request Friend	JUNIOR HIGH SCHOOL R	Israel	Arabic (العربية) English Hebrew (עברית) 'Ivrit)
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E. When Friend has accepted your Friend Request, you will be notified by email. Check your inbox or spam folder for a message from GLOBE.gov You will need to accept the Friend to be connected. Once you and your friend are connected, you will need to send an email to initiate a conversation. You have two options.

- You can NAVIGATE to the search results. In place of the Request Friend link you will see a 'Send Email' link. CLICK this link. OR
- You can CLICK on the name of the teacher in the search results. This will take you to that teacher's page on the GLOBE website. On the bottom right corner, CLICK the button 'Send Email'.

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Tracy Ostrom

Collaboration

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Member Activities

Tracy Ostrom

GLOBE Partner and Science Educator

GLOBE-ENSO Student Research Campaign

Please! Webinar Attendee

REMOVE FRIEND

SEND EMAIL

GLOBE Partner, Mission Earth CA Partnership Project Co-Coordinator

F. A separate window will open. In this window you can type an email directly to the teacher. Click Submit after completing your request in the body of the email.

G. Once two teachers and classrooms are connected, each teacher can facilitate sharing of information and organize collaborations among their students. Teachers can use tools such as Zoom or Meets. Across time zones, asynchronous tools and strategies, such as video exchanges, or discussion boards, may be helpful.



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