



Global Learning and Observations to Benefit the environment

**GLOBE provides students with a more integrated view of the various subjects they study and supports curricular interconnections in all areas.**

### Science, Mathematics and Technology



Students use [scientific protocols](#) and [mathematics](#) when learning scientific research methodologies, analyzing data, and examining data critically. The GLOBE [investigation areas](#) include [Earth science](#) and biology topics in atmosphere/climate, hydrology, soil, land cover, and phenology. [Technology](#) classes utilize GLOBE data sets to create elaborate charts, graphs and maps, comparing student's findings with other data from around the world.

Students build weather stations in [industrial technology](#) classes, and [agricultural education](#) students can actively [assist scientists and farmers](#) in the field to better track environmental events affecting crop production.

### Language, Culture and Art



GLOBE students learn about various languages and cultures as they engage in authentic projects and collaborations with one another, students in other countries, and world experts in the disciplines they are studying. Because GLOBE is a worldwide program, materials are currently available in the six United Nations [languages](#) (English, Spanish, French, Russian, Mandarin, and Arabic), plus German, and more languages are becoming available through our international partners.

GLOBE provides English Language Learners (ELLs) with access to high quality science information and opportunities to assume leadership positions in their classrooms in discussions with students from different countries. GLOBE integrates [literacy skills](#) with all school subjects and [Elementary GLOBE books](#) introduce primary students to the study of Earth system science (ESS). Students submit written reports on their research projects. GLOBE is used as a tool in teaching English as a foreign language and in teaching both English and science content to deaf and hard-of-hearing students who use Sign Language.

### Geography and Social Studies

GLOBE supports the multicultural study of geography by providing hands-on experience with basic geographic skills such as understanding latitude, longitude, scale, map elements, and spatial analysis. There is a close match between the Earth science topics investigated in GLOBE and areas of physical geography such as climatology, hydrology, and soil study.



Students in [art education](#) classes work with contour maps, draw landscape diagrams, and study soil colors. Music classes can include the [Sounds of GLOBE](#) or perhaps even lead the way for the creation of a new [GLOBE music CD!](#) There are photography opportunities as part of collecting study site metadata and for particular projects.

GLOBE provides authentic, life-centered curricula and opportunities for meeting the special needs found in inclusive classrooms of students with a broad range of abilities and learning styles. Opportunities for cross-age tutoring encourage school-wide collaboration, respect for the background and perspectives of all students, and enhanced content learning and cooperation. GLOBE activities are ideal for after school clubs, home-schooled students, and community service learning projects. Life-long learning is at the heart of GLOBE. Senior citizens around the world maintain GLOBE study sites and report that they enjoy mastering the scientific protocols and contributing to understanding of the environment.

GLOBE encourages teachers to collaborate between disciplines and motivates students by showing the interconnections and meaningfulness in what they are studying. GLOBE links students, teachers and scientists around the world to increase environmental awareness, understanding of other cultures, and their sense of global community. GLOBE allows teachers to put the concepts of authentic learning, student-scientist partnership, scientific inquiry, standards-based pedagogy, and curriculum integration into practice on an unprecedented scale.

[www.globe.gov](http://www.globe.gov)



# GLOBE Online Teacher's Guide



- Content introduction
- Protocols
- Learning Activities
- Glossary
- Data Sheets



**GLOBE Investigation Areas include Atmosphere, Hydrology, Land Cover/Biology, Soil, and Earth as a System/Phenology, providing research protocols for use in student research.**

GLOBE can bring virtually every classroom in a school together to work on a single project with other students and scientists on an international level. Although GLOBE's primary focus is science, it also provides students concentrating on developing literacy skills, including learning a second language, with authentic opportunities to communicate in the language they are studying. Science serves as a focal point around which oral language and literacy can develop. The GLOBE Teacher's Guide, as well as materials such as cloud and soil charts, instructional slides, and many Web pages, provides language teachers with content curriculum that can be incorporated into their students' learning experiences.

Because GLOBE partners represent over half the countries in the world, with schools on every continent, in every time zone, and representing virtually every type of biome, the program naturally provides many resources for language teachers. Authentic materials ready for classroom implementation are available in all six United Nations' languages (Arabic, Chinese, English, French, Russian, and Spanish), and at least part, if not all, of the GLOBE Teacher's Guide is also available in Czech, Dutch, German, Greek, Hebrew, Japanese, Portuguese and Thai, with many other materials and resources, such as the Elementary GLOBE K-4 Earth system science series, becoming available in other languages through GLOBE's 112 international partner countries.

For more information visit [www.globe.gov](http://www.globe.gov)  
or contact [help@globe.gov](mailto:help@globe.gov)