My NASA Data - GLOBE Connections

GLOBE Hydrosphere Overview

GLOBE stands for Global Learning and Observations to Benefit the Environment. It is a program sponsored by the U.S. National Aeronautics and Space Administration (NASA) with support from the National Science Foundation (NSF), National Oceanic and Atmospheric Administration (NOAA) and Department of State. GLOBE connects students, teachers, scientists, and citizens from different parts of the world (over 120 countries) to conduct real, hands-on science about their local environment and to put this in a global perspective.

My NASA Data and the GLOBE program complement each other well. My NASA Data provides educational resources and data which support student exploration of NGSS-aligned Earth science phenomena. GLOBE provides opportunities for students to collect their own data related to these phenomena using protocols. A protocol is a standard procedure for collecting and entering data. Each protocol also has supporting grade-level-appropriate interdisciplinary learning activities. These protocols and activities have been developed by the scientific community and validated by teachers.

GLOBE resources are organized by protocol rather than phenomena. Therefore My NASA Data provides GLOBE Connections which pull together GLOBE resources by sphere and phenomena. Connecting in this way facilitates the exploration of phenomena in a variety of ways and includes components to make it locally relevant for students.

GLOBE hydrosphere protocols and learning activities can provide hands-on opportunities for students to explore My NASA Data phenomena from various spheres, not just the hydrosphere.

> Societies around the world are dependent on water bodies (lakes, rivers, etc.) and the water quality determines how water can be used. Is it fit to drink? Is if safe to swim in? Can it be used in agriculture? GLOBE Hydrosphere protocols enable you to take accurate measurements of the often changing quality of water bodies near you. In addition water temperature can affect local climate and weather and is affected by them as part of the Earth system water cycle. Mosquito habitat observations help all pf us track the potential spread of certain diseases and the protocol encourages removing mosquito breeding sites.
> (Source: GLOBE Website)

GLOBE Hydrosphere Protocol connections are available through My NASA Data.

Learning activities are developed and tested by teachers and scientists. They provide interactive opportunities to explore the concepts related to the protocols. Each My NASA Data Phenomenon has been aligned with various GLOBE protocols and learning activities. They can be found in the GLOBE

connections section of My NASA Data for each sphere.

There are mechanisms for students to participate in data collection campaigns, submit research reports and participate in the International Virtual Science Symposium and Student Research Symposia.