My NASA Data - GLOBE Connections

GLOBE Pedosphere (Geosphere) - Additional Resources



The GLOBE resources on this page will support exploration of My NASA Data pedosphere (geosphere) phenomena. These include campaigns, eTraining and how to find related student projects.

eTraining

For online eTraining on GLOBE pedosphere protocols which can be used to explore My NASA Data geosphere phenomena, visit the <u>GLOBE eTraining page</u>.

Introduction to Pedosphere - This training provides background information about soil and an overview of the protocols of the GLOBE Pedosphere Investigation. It also explains how to define soil study sites for both Soil Moisture and Temperature and for Soil Characterization. After completing it you will be prepared to proceed to learn any and all of the soil measurement protocols.

In order to enter data for a protocol, you will need to complete the Introduction to Pedosphere module and the protocol module. In addition, there may be supporting protocols required.

Arctic and Earth Signs

Community

The Arctic and Earth SIGNs Community, based at the University of Alaska Fairbanks International Arctic Research Center, connects youth and adults to climate change and Earth science learning through inquiry-based GLOBE investigations and community stewardship projects. Come collaborate with NASA and Arctic scientists to make a difference right where you live!

The <u>project website</u> has all the current information you'll need to get involved in this project. Be sure to investigate the learning activities on the page.

Source: Arctic and Earth Signs

Permafrost Thaw

Visit one of the Arctic and Earth Signs resource bundles. It includes GLOBE protocol connections and PBS resources relating to permafrost thaw.



Permafrost - Image credit: Hugo Ahlenius,

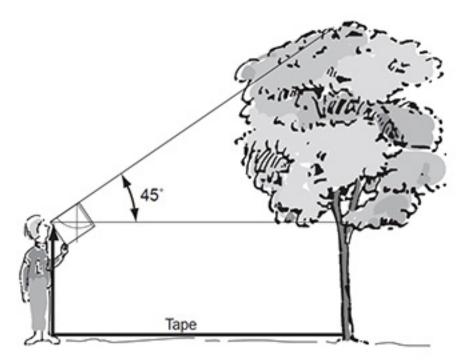
UNEP/GRID-Arendal

Campaigns

GLOBE campaigns are a great way to explore different phenomena. Students have the opportunity to use GLOBE protocols and submit data in conjunction with students around the world. These data will contribute to the goals of the campaign in addition to facilitating student learning.

Trees Around the GLOBE Student Research Campaign

The Trees Around the GLOBE Student Research Campaign commenced on September 15, 2018 in conjunction with NASA's ICESat-2 satellite launch on the same date at 6:02am PDT. This campaign is a student research campaign focusing on tree height - one of the measurements conducted by the ICESat-2 mission. Tree height is not just a measurement - it is a gateway to understanding many things about the environment. The structure of tree canopies, the 3D arrangement of individual trees, has a huge effect on how ecosystems function and cycle through carbon, water, and nutrients. Source: (GLOBE Website)



Source: (GLOBE

Website)

Land cover observations are also part of the campaign.

Using the technology inside your phone (or tablets), students can help scientists classify land cover and track changes. Land cover is critical to many different processes on Earth and changes in land cover contribute to a community's vulnerability to disasters like fire, floods or landslides.

Help Make a Better World Land Map with NASA GLOBE Observer App

"As more and more of these detailed maps are developed in the future, we look forward to investigating alongside GLOBE Observer citizen scientists to monitor the changes we see from space, and to explore the drivers of the changes," says Brown de Colstoun. "These observations help us to better understand how the Earth is changing and the impacts of land cover change across our home planet."

Additional measurements that can be made in association with the campaign include:

Land Cover Classification, Green Up / Green Down, and Carbon Cycle, Air Temperature, Surface

Student Projects

Find student projects related to the phenomenon you are exploring. These projects can be used as background research for younger students, or as models for student projects. There is a <u>search filter</u> available to find the projects you would be most interested in seeing. Students can also submit their own reports on the same page.

	THE GLOBE	PROGRAM	A Worldwide	Science and Education Pi	ogram	Q SIGN IN	ENGLISH 🗸
About	Get Started	Get Trained	Do GLOBE	GLOBE Data	Community	News & Events	Support
Home > Do	o GLOBE > Research & R			_			📢 Share
Stur Stur Tea	earch & Resources dent Research Reports dent Resources ching Resources her Ed Resources	Check out stu Would you lik graphic to the projects can l	te to have your report e right to submit you be uploaded in any la	ts from around the worl rt added? Click on the r report. Please note tha	^{d!} Uploa t Resear	ad Your ch Report	
Pub	olications DBE Equipment		ice Symposium? Clic		Protocols		
		Region/Count		Ŧ	Atmospher	e	
		Grade Level:	Primary (grades K-2,	ages 5-8)	Biosphere		
		Upper	Primary (grades 3-5,	ages 8-11)	Earth As a	System	
					Hydrosphe Pedospher		
		 Internati Mission Mission 	d Research Report ional Virtual Science Earth Report Mosquito Report dent Research Symp				
				Apply	Filter Clear		

Website)

You can filter on the following:

- Year
- Region/Country
- Grade Level
- Protocol all GLOBE protocols are available
- Report Type The report type options are different forums available for students to submit their work.

There are also opportunities for students to participate in the <u>International Virtual Science</u> <u>Symposium</u> and <u>Student Research Symposia</u>.