



THE GLOBE PROGRAM

Student Climate Research Campaign

Surface Temperature Field Campaign



Teacher Participation Guide

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Purpose

To involve students in short-term and long-term scientific studies focused on climate and land cover near their school and in comparisons with schools across the globe as a contribution to scientific research efforts of scientists.

Overview

The Surface Temperature Field Campaign is a research effort between GLOBE schools and scientists to understand the relationship between ground snow cover and surface temperature. The over-arching question that this field campaign hopes to address is “how does surface cover affect surface temperature?” Using the GLOBE surface temperature protocol, students take measurements near their schools and upload these data to the GLOBE database.

Intensive Observing Period (IOP)

Although surface temperature measurements can be taken and uploaded at any time throughout the year, it is suggested that they be collected during the month of December. This allows for focused observations to give scientists a better understanding of the relationship between ground snow cover and surface temperature.

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Surface Temperature Field Campaign											

What is needed

In order to participate in the Surface Temperature Field Campaign you will need the following materials:

- *Surface Temperature Data Sheet*
- *Surface Temperature Field Guide (optional)*
- Hand-held Infrared Thermometer (IRT)
- Thermal glove
- Ruler or meter stick
- Pencil or pen
- GLOBE Cloud Chart
- Accurate watch

Time needed to participate

- Identify and establish a new atmospheric study site *or* establish a site where soil temperature is measured *or* prepare to characterize a Land Cover Sample Site: *1-2 class periods*
- Conduct repeat observation of an established site and report data: *30 minutes*

What to do and how to do it

Collect surface temperature data

1. Identify and establish a representative atmospheric study site *or* a site where soil temperature is measured *or* establish a Land Cover Sample Site. Refer to the Site Selection and Set-up Guide for information regarding identification and establishment of these sites.
2. Follow the Surface Temperature Protocol directions for collecting atmospheric data and record data on the Surface Temperature Data Sheet.

Report data to the GLOBE database

1. Sign In on the GLOBE website (www.globe.gov) using your email address and password.
2. Navigate to your public page by hovering over the drop down "Go to" menu in the upper right hand corner, and selecting "My Public Pages".
3. Click on the "Data Entry" tab.
4. Select either "Define a New Site" at the bottom of the page or an existing site from the list of your school's sites. Please note that each site will contain information that indicates which protocols have been used at that particular site.
5. Fill in the data sheet as directed and select "Send Data".