

Using GLOBE Resources To Create Interactive Media for the Classroom



Photos courtesy Gardendale Elementary School, Gardendale, Alabama USA

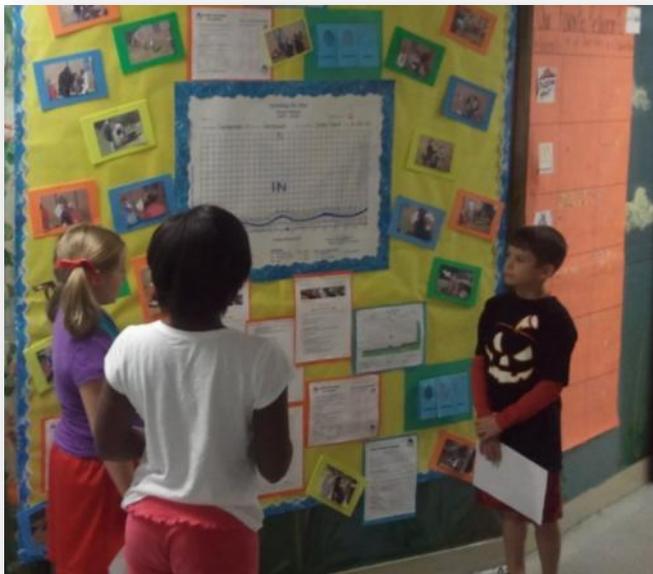
AMSTI-GLOBE Protocol Grade Assignments

Grade K	Clouds, Budburst
Grade 1	Precipitation, Greenup/Greendown
Grade 2	Soil Characterization
Grade 3	Daily Max/Min Temp, Clouds & Weather Patterns
Grade 4	Hydrology - Site Mapping, Temp, Transparency
Grade 5	Soil pH, Rainfall pH, Surface Temp, Soil Temp
Grade 6	Relative Humidity, Barometric Pressure, Earth as a System
Grade 7	Land Cover, Project Learning Tree
Grade 8	Remote Sensing, Hydrology – pH, DO, Nitrate, Alkalinity



Challenges

- Physically performing protocols
- Making content grade-appropriate
- Engaging, grade-appropriate activities

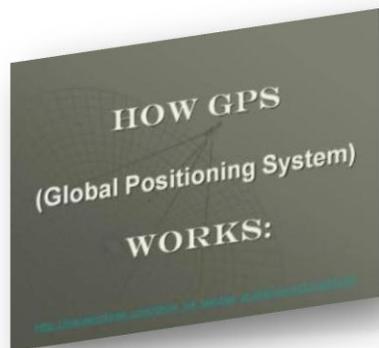
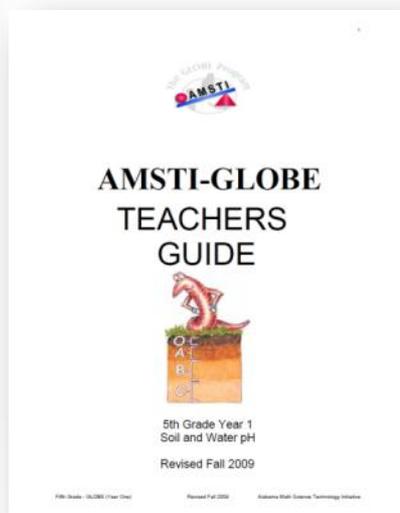
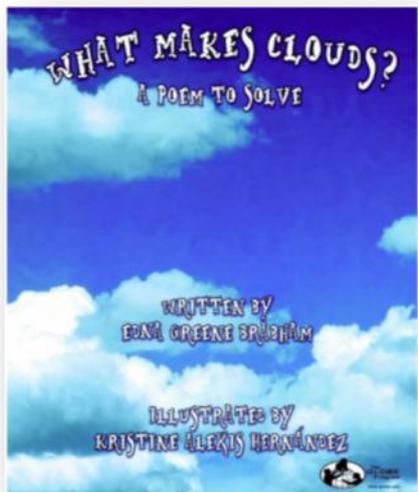


Protocols



- Equipment and procedures are adapted/modified when necessary, i.e.; rain gauge on short post rather than with atmosphere shelter.
- Adhere to protocols as much as possible. Any variances are recorded in metadata.
- Emphasis is on student participation.

Resources



- Teacher's Guides for each grade and protocol
- Contain activities, step-by-step instructions, materials lists, reading lists, additional resources
- Accompanying PowerPoints and videos with grade-appropriate content.
- Elementary GLOBE books and materials

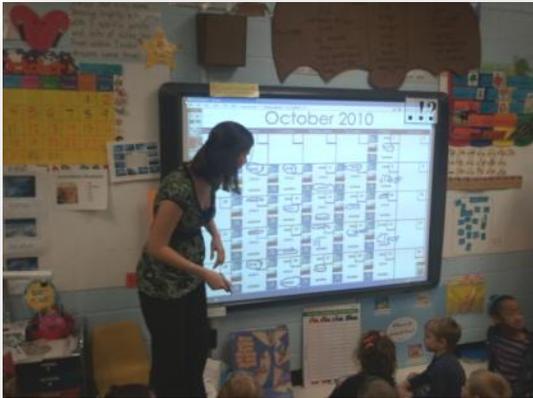
Activities

- Suggested learning activities are included in Teacher's Guide

- Teachers are also encouraged to come up with their own



Interactive Activities



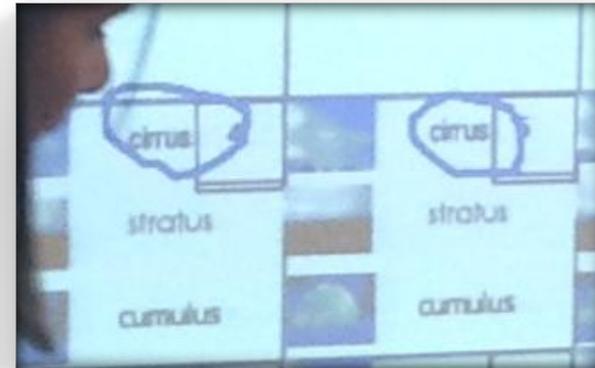
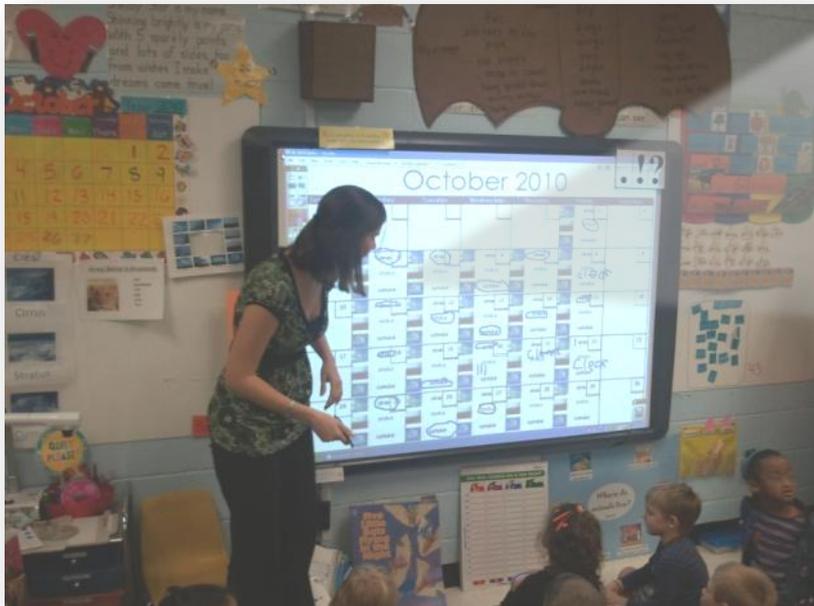
Using AMSTI Teacher's Guides, the GLOBE Teacher's Guide, data sheets, and other materials, some of our teachers have developed activities for their interactive whiteboards and other classroom technology.



Similar activities can be created for classes without an interactive board, using readily available software such as PowerPoint.

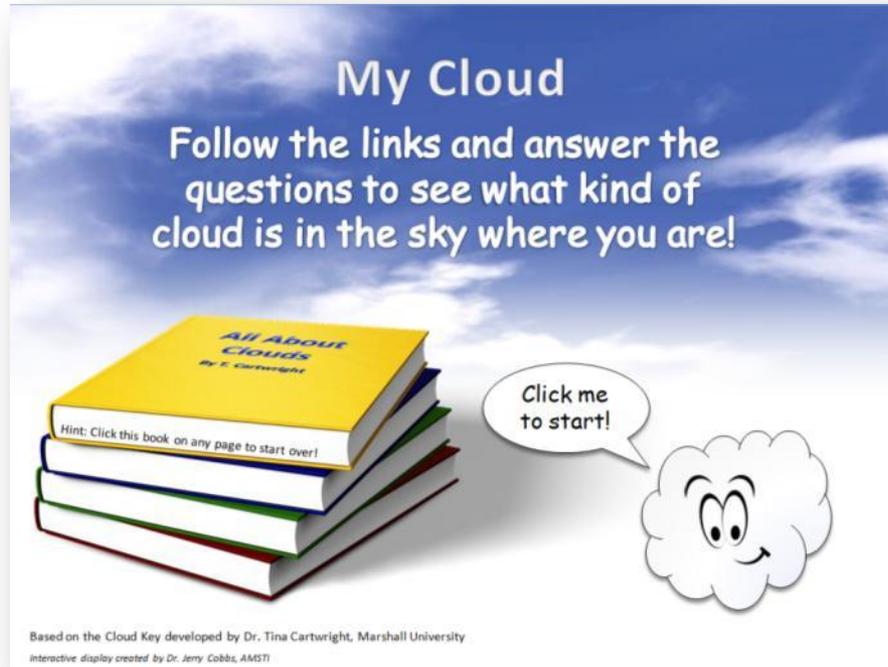


- In this activity, kindergarten students are learning to identify various types of clouds.
- They choose a cloud image and drag it to the circle which corresponds to the correct cloud type.



These kindergarten students enter their cloud observations on an interactive data sheet by circling the types of clouds they observe. The teacher can later enter the data into the GLOBE website.

Create an Interactive Activity



My Cloud

Follow the links and answer the questions to see what kind of cloud is in the sky where you are!

All About Clouds
By F. Cartwright

Hint: Click this book on any page to start over!

Click me to start!

Based on the Cloud Key developed by Dr. Tina Cartwright, Marshall University
Interactive display created by Dr. Jerry Cobbs, AMSTI

Interactive activities can be created using PowerPoint, OpenOffice, ZohoOffice, Google Docs, or other presentation software, by using embedded hyperlinks to guide students through the activity

“My Cloud” Interactive Key



My Cloud

A Dichotomous Key

Created by Dr. Tina Cartwright, WV State Climatologist

Look carefully at your cloud. Answer the questions below, and follow the instructions. When you reach a cloud name in **bold**, that is the type of cloud you are observing. Stop at that point.

1. Is it raining?

No- go to number 2.

Yes- with thunder, lightning, & heavy rain - your cloud is a **cumulonimbus**.



Yes- but only drizzly, with small raindrops - your cloud is a **nimbostratus**.



2. Is it a high wispy cloud, like a horse's tail?

No- go to number 3.

Yes- your cloud is a **cirrus**.



3. Is it flat & layered, puffy & bumpy, or some of both?

Flat & layered-go to number 4

Puffy & bumpy-go to number 5

Both- your cloud is a **stratocumulus**.



- “My Cloud” – cloud identification key

- Developed by Dr. Tina Cartwright, Marshall University

- Walks students through a series of questions to help them identify clouds.

“My Cloud” Interactive Key



- In the interactive version, students click on the correct “cloud” answer button to answer the questions in the key.
- Buttons are hyperlinks created in PowerPoint.

Future Plans/Goals

AMSTI-GLOBE

AMSTI-GLOBE is AMSTI's partnership with The GLOBE Program. GLOBE (Global Learning and Observations to Benefit the Environment) is an international hands-on science and education program, with over 50,000 teachers in over 110 countries. AMSTI science teachers in grades K-8 receive training, materials, and support for using GLOBE in their classrooms.

Title	Download
Grade K	Download
Grade 1	Download
Grade 2	Download
Grade 3	Download
Grade 4	Download
Grade 5	Download

Find Your School!

Click on the blue pin in the US to zoom in. Keep clicking pins to zoom closer. Along the way, see how many GLOBE Schools are in your state and your city. Once you have zoomed all the way in, click your school name to see your school GLOBE page!

- Mrs. Robin Nelson
AMSTI Science Coordinator/
AMSTI-GLOBE Co-director
Alabama Department of Education
- Mrs. Lynn Vaughan
GLOBE Resource Specialist/
AMSTI-GLOBE Co-director
University of Alabama in Huntsville
- Dr. Jerry Coble
GLOBE Technology Specialist/
AMSTI-GLOBE Co-director
University of Alabama in Huntsville

- Develop a Flash-based version of “My Cloud” to offer via web.
- Offer teacher-created activities on our website – www.amsti.org/globe