Deliverable 4-1: Targeted Content and Standard

Weather or Not? Targeted Content: Weather prediction

Investigation scenario (http://www.cet.edu/ete/modules/weathernot/wonsituation.html):

Situation

Weather prediction is big business. It is important to farmers who need to factor in weather conditions in deciding when to plant and spray their crops. Weather prediction is important to promoters of large outdoor sports events. The umpire at a baseball game must decide if it's a short shower and a rain delay or if the game is a rainout. His decision translates to dollars won or lost for the promoters of the game. The weather forecasters, like readers of crystal balls, tell people what their futures hold. How nice it is for the weather forecasters to be able to check satellite images to see how large storm cells are and how fast they are moving.

We know that satellite views of the Earth can be used to track hurricanes and monitor floods as they are happening. These views can also be used to predict weather.

Try to Predict the Weather
You will use satellite images that are just a few hours old to determine weather conditions now so you can predict the future. The simplest prediction is for today, but you will be able to make predictions for 48 hours and even next week.

What to Do
1. Pick an outdoor event that is scheduled to take place today or within the next few days. This could be a sporting event, a speech outdoors by a politician, or any event that might be affected by the weather.

2. Use real-time images and other resources in the monitoring area come to up with a prediction of the weather. Share your prediction with other students.

3. Find out if your prediction was right by looking for the weather report in the locale where the event took place. You might check the weather map in your newspaper or check satellite images on your local TV weather channel. If the event was televised, you might be able to observe for yourself what the weather was like.

Standard
The Weather or Not? investigation is closely aligned with Georgia's middle school ecology standard 19.1:

19.1 Interprets weather maps and makes forecasts.

Note: Most targeted standards will also include more general inquiry (sometimes called process) standards. The first or second standard listed for a content area is often a process standard. Georgia's middle school ecology standards include:

> *1. Uses process skills of observing, classifying, communicating, measuring, predicting, inferring, identifying, and manipulating variables. Also uses skills of recording, analyzing and operationally defining, formulating models, experimenting, constructing hypotheses, and drawing conclusions.*

In general, the content standards become meaningful in light of the inquiry standards. Thus, standard 1 helps characterize what the word "interpret" means in standard 19.1.