

Observing Weather in Your Classroom

Introduction

Every day, probably the first decision you and your students make concerns the weather. “What should I wear?” You may have heard the saying that explains the difference between climate and weather: “Climate is what you expect and Weather is what you dress for.” Daily weather plays such an important role in our lives that bringing it into your classroom can prove very effective in exciting your students about Earth Science

Making Their Own Observations

If possible, students should gain experience making weather measurements of their local environment. It is probably better if they can go outside, but if this is not allowed, they should at least use and read instruments in the classroom.

At a minimum, they should have access to **sling psychrometers** and **barometers**. If they can go outside, it would be useful to have a **handheld anemometer** and a **wind vane**. **Cloud identification charts** would also be of value.

What you do with the information may depend on your classes and vary during the year. Students should record the data, either on a poster or electronically.

If students make measurements with sling psychrometers, design an activity that allows them to use the ES Reference Table charts to calculate the relative humidity and dew point.

If students use a barometer, design an activity that allows them to use the ESRT chart to convert units.

Weather on the Web

Even if students cannot make their own measurements, they can still gain valuable experiences through data provided on the Internet. The web provides the only way they can access some information, such as weather radar and satellite images.

Students may be familiar with The Weather Channel (www.weather.com), but their business is primarily entertainment. Instead, direct your students to the National Weather Service (www.weather.gov.) This is our Nation’s official monitoring and warning agency, and the source of much of what TWC and other media outlines re-package.

Go to www.weather.gov and explore the features of the home page.

What parts of this page might you use immediately in your classes?

Notice that you can customize the forecast using the box in the upper-left. **Type in your zip code and peruse the regional information. What aspects of these might you use with your classes?**

Often overlooked are valuable links located on the right-hand side, including **links to your local Forecast Office, recent weather observations from stations in the area, a 3-day history of observations**, and interesting data. **How could you incorporate these into lessons?**

Scrolling down below the area map takes you to “Additional Resources.” These include **radar and satellite images**, charts that provide detailed **hourly forecasts** for the next and past two days, and links to the National Digital Forecast Database for high temperatures and chance of precipitation,

How and when would you wish to include radar imagery in your lessons?

How and when would you wish to include satellite imagery in your lessons?

There are also many useful links near the bottom of the page to Educational resources.

Finally, locate again the “Local Forecast Office” link in the upper-right of the homepage. Scroll down to “Office Staff” and locate the **Warning and Coordination Meteorologist**. This is the staff person you should contact if you want to arrange for a class visit to their office or have other questions about the local weather.

Note here your WCM’s name and email:

School Weather Club and Announcements

Every school has “Weather Weenies” and they would benefit greatly if you can provide them with a “Weather Club.” If your school makes announcements before dismissal, perhaps you can get permission for the students to provide a forecast for the next day, or at least the weekend.

What would you need to do to create a weather club for your students?

Amateur Weather Observer Clubs

You may have in your area a club of weather enthusiasts who often are willing to share their passion in a school program.

There may also be a Local or Student Chapter of the American Meteorological Society in your region with whom you can connect. Look for one near your school at <https://www.ametsoc.org/ams/index.cfm/about-ams/ams-local-chapters/>.

If your students are enthusiastic enough, it is even possible for them to organize a Pre-College AMS Student Chapter: <https://www.ametsoc.org/ams/index.cfm/about-ams/ams-local-chapters/pre-college-chapter-information/>

Additional Notes: