

Weather and Climate Data Collection Part I

Purpose & SOL

- Students will identify, observe and document weather conditions in the garden using weather instruments.
- Science 1.7, 2.6, 4.6
- Math 3.17, 4.14

Engage

- What are different types of weather phenomena?
- What type of weather conditions do we measure?
- What are the units associated with measuring these conditions? (ex. degrees for temperature, mph for wind)
- Why do we collect data and monitor the weather?

Materials

- Weather station
 - Thermometer
 - Barometer (air pressure)
 - Rain gauge (rainfall)
 - Anemometer (wind speed)
 - Weather Vane (wind direction)
 - Hygrometer (humidity)
- If no weather station is available, visit www.noaa. gov to find weather factors and conditions in school location
- Data collection logs for each student

Procedure

- 1. Review the function of each weather measurment tool on the weather station
- 2. Have students come up one at a time to the weather station and read one of the weather measurment to the
- 3. Have each student record in their data log the weather conditions and the date
- 4. Discuss how the data relates to their observations (example: We've measured that the wind is 8 mph. Does it feel like the wind is moving fast or slow? If a car/airplane/hurricane/cheetah was moving 8 mph, would that be fast? Compare the data to familiar items like cars, planes, animals to put it in context.)
- 5. Review with students why we might be interested in monitoring the weather
- 6. Explain to students that in the next lesson, we will be looking at how weather impacts the garden. Encourage students to monitor and record data at the weather station throughout the year (weather data will be used for future lessons).

Did You Know?

- Weather data has officially been recorded in Virginia since 1897!
- The hottest ever recorded temperature in Virginia was 110 degrees on July 15, 1954 in Balcony Falls
- The coldest ever recorded tempeature in Virginia was -30 degrees on January 21, 1985 at Mountain Lake

Classroom Extension

Have students journal about the weather over the next few days

