

# Weather and Climate Data Collection Part II

## Purpose & SOL

- Students will build on previous knowledge of weather instruments, and apply it to techniques to grow food in the garden.
- Science 1.7, 2.6, 4.6
- Math 3.17, 4.14, 4.7 (a,c)

## Materials

- Remay cloth
- PVC hoops
- Large binder clips (2 inch)
- Weather Station

## Engage

- Review the difference between weather and climate (weather- changes that occur daily, such as rain, humidity, heat vs. climate- the average of weather conditions over a long period of time)
- What's a micro-climate? (a zone where the climate is different from the surrounding area)
- How does the weather and climate affect the growth of plants?

## Procedure

1. Have students record weather data from the weather station into their data logs
2. After reviewing different examples of micro-climates, ask students to find and stand in micro-climates in the garden
  - Students will stand in the micro-climates and describe the difference between being exposed (general climate) and sheltered (micro-climate).
  - Discuss why shelter is important for survival
3. Can plants survive in extreme heat or extreme cold? What can we do to ensure the plants are in an appropriate micro-climate for their growing needs?
4. Students will explore different types of materials we can use to create micro-climates in the garden. Examples include adding a windshield or cold frame to a plant in the spring, growing plants in a greenhouse during the winter.
5. Explain that in our garden we use remay- a material that prevents frost but lets in water and sunlight.
  - Measure the raised bed that you need to protect.
  - Cut out the piece of remay to fit the bed.
  - Put the piece of remay over the hoop and fasten with binder clips.
  - Demonstrate how to take the remay on and off for garden maintenance in different weather conditions. On hot days allow plants to get as much direct sunlight as you can by taking the remay off during the day but covering it up from frost at night.

Closing: Students will review the ongoing responsibility of collecting weather data at each weekly lesson in order to eventually chart and graph data.

## Classroom Extension

Have students draw a diagram that includes the plant structures covered in this lesson.

