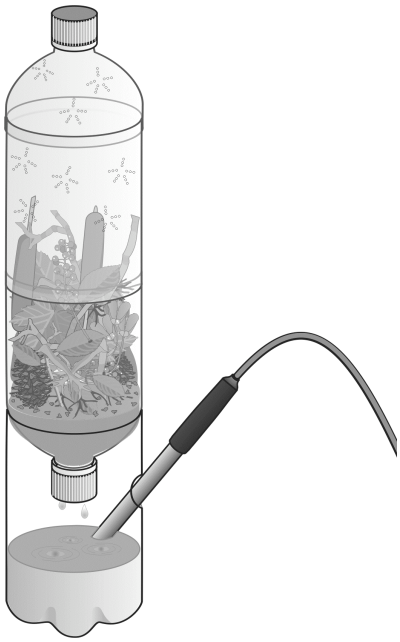
PRELIMINARY ACTIVITY FOR

Decomposition Column Investigations

In this experiment, you will use a Decomposition Column and probeware as you investigate decomposition and related concepts. CO_2 Gas Sensors, Light Probes, Relative Humidity Sensors, pH Sensors, Temperature Probes, and other sensors can be used to collect meaningful data in Decomposition Column investigations.



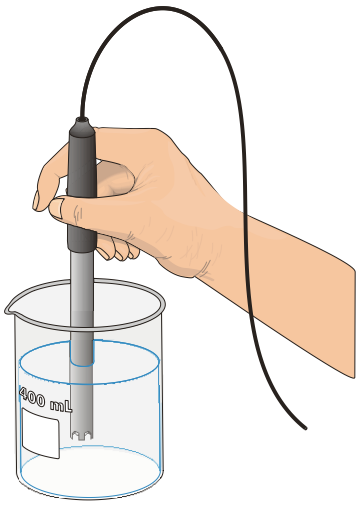
In the Preliminary Activity, you will gain experience using a pH Sensor and learn pH measuring technique as you determine the pH of a water sample. **Note:** You may or may not choose to use a pH Sensor as you later investigate your researchable question.

After completing the Preliminary Activity, you will first use reference sources to find out more about the decomposition and related concepts before you choose and investigate a researchable question. Some topics to consider in your reference search are:

- decomposers
- decomposition column
- energy flow in ecosystems
- compost (ing)
- food chain
- leachate

PROCEDURE

1. Connect the pH Sensor and the data-collection interface. **Important:** For this experiment, your teacher already has the pH Sensor in pH soaking solution in a beaker; be careful not to tip over the beaker when connecting the sensor to the interface.
2. Rinse the pH Sensor with distilled water.
3. Measure the pH of a water sample.
   a. Place the tip of the pH Sensor into the water sample being tested. Make sure the glass bulb at the tip of the sensor is covered by the water. Stir gently.
   b. Continue gentle stirring. Note and record the pH value when the reading stabilizes.
4. Rinse the pH Sensor with distilled water and return it to the soaking solution.
5. Practice the use of CO_2 Gas Sensors, Light Probes, Relative Humidity Sensors, Temperature Probes, and other sensors as directed by your teacher.



QUESTIONS

1. What did you measure in the Preliminary Activity? What results did you obtain?

2. What are decomposers?

3. List four items that are commonly composted.

4. List at least one researchable question for this experiment.