

Observing an ecosystem

Grades 6

Overview	<p>The purpose of this lesson is to have students learn about collecting data, while then entering it within ChartGizmo.</p>
Objectives	<ol style="list-style-type: none"> 1. Create an ecosystem that can be observed throughout a period of 9 weeks. 2. Learn to read a thermometer and PH indicator strips 3. Learn the metric measuring system so that all measurements will be uniform and accurate throughout the groups collecting data. 4. Take care of an ecosystem so that students will learn how interaction is accomplished
Materials	<ul style="list-style-type: none"> • Aquarium Tank • Dirt • Sticks • Grass seed • Fast Plants • Rocks • Light • Thermometer • Meter Stick • Anole • Crickets
Standards <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> http://dc.doe.in.gov/Standards/AcademicStandards/StandardSearch.aspx </div>	<p>6.1 Students design investigations. They use computers and other technology to collect and analyze data; they explain findings and can relate how they conduct investigations to how the scientific enterprise functions as a whole. Students understand that technology has allowed humans to do many things, yet it cannot always provide solutions to our need.</p> <p>6.2 Students use computers and other tools to collect information, calculate, and analyze data. They prepare tables and graphs, using</p>

these to summarize data and identify relationships.

6.7

Students use mental and physical models to conceptualize processes. They recognize that many systems have feedback mechanisms that limit changes.

Procedure

1. First we needed a tank to hold our terrarium.

2. Next we needed materials that would help us to measure and check how our terrarium was working.

1. These materials included a meter stick, a thermometer, a light to put on top of the tank to conduct light twelve hours a day, a spray bottle, pH strips, a notebook to record data and information between all the sections, and a pen/pencil to write down those findings.

3. In the terrarium side of the tank we put in 5,800 milliliters of soil, twenty milliliters of grass, one medium rock, two small sticks, one small branch, 80 fast plant seeds, and fifteen milliliters of water to help things grow.

4. The organisms that we put in the terrarium side of the tank were a meal worm, an anole, eventually twenty-five crickets, and a crab.

5. Record the data for the PH of the soil, temperature, number of crickets eaten, plant growth (height), and water added to terrarium.

6. At the end of the 9 weeks the data will be

	<p>recorded into charts using the website ChartGizmo. This will finish the project once the data is submitted and turned in.</p> <p>7. All data needs to be organized to where the averages are recorded onto the charts.</p> <p>8. This will finish the 9 week ecosystem project.</p>
Evaluation	<ul style="list-style-type: none">• Evaluate students by making sure the data was recorded and put into chart format using ChartGizmo.• Students who successfully do this will receive full credit for the 9 week project.