

GYSTC Discover Georgia STEM Camp

Week Two: Day One

Title: Carnivorous Plant Quest!

Presenter: Pamela Parks

Purpose:	To learn about how carnivorous plants have adaptations to live in areas of Georgia where other plants cannot live.
Standard:	<p>GSE Standard and elements: S3L1. Obtain, evaluate, and communicate information about the similarities and differences between plants, animals, and habitats found within geographic regions (Blue Ridge Mountains, Piedmont, Coastal Plains, Valley and Ridge, and Appalachian Plateau) of Georgia.</p> <p>b. Construct an explanation of how external features and adaptations (camouflage, hibernation, migration, mimicry) of animals allow them to survive in their habitat.</p> <p>c. Use evidence to construct an explanation of why some organisms can thrive in one habitat and not in another.</p>
Materials:	<ul style="list-style-type: none"> • Paper Plate • Crayons • Green construction paper • Pipe cleaners • 2 small pom-pom balls • 2 wiggly eyes (or eyes cut from paper) • 1 popsicle stick • Scissors • Glue
Procedures:	<p>Model of a Venus fly trap with proper names of features</p> <ol style="list-style-type: none"> 1. Color the paper plate green. 2. Cut a 1-inch strip off the side of the piece of construction paper, and cut it into small strips. 3. Glue the strips to the outside of the plate, to make “teeth” 4. Cut the pipe cleaner into small pieces, and glue or tape onto the paper plate to make trigger hairs. 5. Glue together the two pom-pom balls to make an insect body. Add the eyes, wings and feet. Attach to the stick. 6. Fold the paper plate in half to make a Venus Fly trap. 7. Cut a 2 inch strip of green paper to make a stem and glue it to the bottom of the Venus fly trap. 8. Use the insect to trigger the Venus fly trap to close.

<p>Science Behind It:</p>	<p>Carnivorous plants do use photosynthesis to produce their own food. However, carnivorous plants grow in soil that typically does not have many nutrients, especially Nitrogen. To help get those missing nutrients, the plants have an adaptation to catch insects. The insects provide extra nutrition, kind of like vitamins provide you extra nutrients when you are not eating properly.</p> <p>There are several different methods that these plants use to trap prey, including pitfall traps, snap traps, flypaper traps, and bladder traps. Pitfall traps use a nice smell or bright color to lure their prey. The prey lands on the plant, falls into a vat of liquid, and the plant digests the prey. Snap traps use trigger hairs to let the plant know that prey is near. Water in the leaves is moved, causing the plant to close and capture the prey. A flypaper trap also lures a victim through color or smell. When the prey lands on the sticky surface, they are caught. The plant curls around the prey and digests it. Bladder traps are found under water. When motion triggers the plant that prey is nearby, the plant uses suction to bring the prey into the root system.</p>
<p>Questions to Ask:</p>	<ul style="list-style-type: none"> •Do carnivorous plants use photosynthesis to make their food? •What is an adaptation? •How can carnivorous plants live in poor soil? •What are some different ways that carnivorous plants trap bugs?