ATLANTA BOTANICAL GARDEN

Atlanta Botanical Garden
Carnivorous Plants (6th-12th)

Description: Sticky, stinky, slippery, plants. Travel to Georgia's wetland bogs from your classroom to get an up close view of our native bug-eating plants in action. Discover why these plants have developed an unusual appetite and how they manage to trap and digest their prey.

GSE Supported: S7L4.a., SCE1.b, SEC3.c ,SBO5.a, SBO5.c

Pre-Visit: Guiding Questions: Define ecosystem. What type of symbiotic relationship do carnivorous plants have within their ecosystem?

What to Read/Watch: An Inside Look at Carnivorous Plants, Okefenokee Swamp Live, How Carnivorous Plants Avoid Eating Their Pollinators, The Inner Working of Venus Flytrap

Post-Visit: Questions: What would happen to the ecosystem if there were no more carnivorous plants?

Activities: *Make a passive trap!:* You'll need: Scissors, tape, empty soda or water bottle, apple cider vinegar, soap, water, sharpie. Instructions:
1. Clean out an empty water bottle or soda bottle using soap and water and let dry. Carefully cut off the top of the bottle a couple of inches below the neck.
2. Make a solution of one part water to one part apple cider vinegar. Add a drop of dish soap.
3. Pour in the solution into the bottle. The bottle should be less than halfway full to drown the flying insects.
4. Invert the cut top of the bottle and attach it to the solution filled base with the neck facing down.
5. Tape the top and bottom of the bottle together to close off gaps and keep it secure.
6. Place your trap in the kitchen to attract and trap fruit flies or outside to attract other insects.
7. Check your trap everyday and count the number of insects caught in your trap. After about a week of use, throw away your trap and make another.

Plant Adaptations: Pitcher plants have many adaptations that help them attract and trap bugs more efficiently. These features include bright colors, appealing scents, and hairs that prevent bugs from escaping. Choose one adaptation to replicate in your trap to see if it increases the number of insects you catch. For example, you may choose a "nectar" other than apple cider vinegar or color parts of your trap a different color or invent another modification that you think might help. What traps the most bugs? Do real pitcher plants have similar adaptations to the ones you chose?

Insect Population Count: Many scientists use passive pitfall traps to study the types of animals present in an ecosystem. You can do the same to discover what invertebrates are in your area. Dig a hole in the ground outside and place your water bottle trap inside so that the top of the bottle is level with the surrounding dirt. Leave overnight and see what insects and other invertebrates are trapped in the morning. Prefer a trap and release method over killing

invertebrates with apple cider vinegar? Instead of a liquid attractant at the bottom of your bottle use fruit.