GEORGIA
BURTON 4-H CENTER ON TYBEE ISLAND

Wetland Monitoring
Pre-Post Trip Activities

Activity 1. Turbidity Trials

Gather different substrates that might be present in a wetland like sand, mud, dirt, pebbles, ground up dead leaves, etc. For each substrate, you'll need a clear sided water bottle or beaker filled with water. At the same time, dump each substrate collected into its own bottle/beaker. Shake or stir water until substrate is fully incorporated into the water. When you're done shaking or stirring, start a stopwatch and observe which substrate takes the longest to settle back to the bottom of the container. Discuss the results.

Activity 2. Watersheds Over Time

Find a historical map of your school's town. Highlight the watersheds and rivers. Print a contemporary map of your town. Compare these two with the students and have them discuss where the water is today and where it went. You can also print maps of major cities, such as New Orleans, Miami, and Los Angeles from 100 years ago, 50 years ago, and today; discuss how human population growth has changed the landscape.

Activity 3. Plant Pollution Uptake

Take a fresh stalk of celery, cut the top leaves off, and fill a glass halfway with clean water. Show the students the color of the cross section and explain how plants soak up water like a straw. Sometimes, however, the water has harmful chemicals in it. Add a few drops of food coloring to the water. This represents water pollution. When the water is polluted, it will affect the plants that grow in and around it. Place one end of the celery stalk in the water and let it sit overnight. The next day, take out the stalk of celery and cut into several sections so they can see how far up the food coloring was absorbed by the celery. Discuss how some plants can uptake the pollution to decontaminate the soil or water in which they are growing.

Activity 4. Growing Observations

Nitrogen and Phosphorus are essential elements when it comes to plant growth. With a plant of your choosing, perform an experiment to see what other factors are required for plant growth. Grow one plant indoors and another plant outdoors. You will want to record factors a few times a week such as temperature, how often the plant receives water, the condition of the environment, and the appearance of the plant. This experiment can continue for as long you would like. To conclude the experiment, review the recorded observations and discuss how the different conditions impacted the plant's growth.

Activity 5. 'pH' inding pH

Have students collect common household liquids to test the pH of. As a class, use a pH kit to determine whether each liquid is acidic or basic. Discuss the results and what pH indicates. Talk about how pH can affect plant growth and aquatic species.