

## Second Grade Canal Sciences Program Outline

### Standards:

**GA:** SKCS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works. a. Raise questions about the world around you and be willing to seek answers to some of the questions by making careful observations (5 senses) and trying things out. SKCS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations. a. Use whole numbers for counting, identifying, and describing things and experiences. b. Make quantitative estimates of nonstandard measurements (blocks, counters) and check by measuring. SKCS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities. S2L1. Students will investigate the life cycles of different living organisms. a. Determine the sequence of the life cycle of common animals in your area: a mammal such as a cat or dog or classroom pet, a bird such as a chicken, an amphibian such as a frog, and an insect such as a butterfly. b. Relate seasonal changes to observations of how a tree changes throughout a school year. c. Investigate the life cycle of a plant by growing a plant from a seed and by recording changes over a period of time. d. Identify fungi (mushroom) as living organisms.

**SC:** 2-2.1 Recall the basic needs of animals (including air, water, food, and shelter) for energy, growth, and protection. 2-2.2 Classify animals (including mammals, birds, amphibians, reptiles, fish, and insects) according to their physical characteristics. 2-2.3 Explain how distinct environments throughout the world support the life of different types of animals. 2-2.4 Summarize the interdependence between animals and plants as sources of food and shelter.

### Essential Question(s):

1. What is a life cycle and how is it alike or similar for plants and animals?
2. Are all animals the same? If not, how are they grouped together?
3. What kinds of environments are better for certain kinds of plants and animals?

### Objectives:

Students will be able to explain the life cycle of plants and animals.  
SWBAT develop an understanding of animal classification based on environments and physical traits.  
SWBAT determine the differences between what plants need and what animals need.

### Plan for Field Trip:

1. Students will alternate between activities being conducted within the Interpretive Center, Cotton Room (new classroom), and/or courtyard. There will be a boat option at extra cost that can be included in the field trip
2. In the IC, students will participate in the Canal Critters Scavenger Hunt where they will search for animals native to the Augusta Canal National Heritage Area using clues. They will learn the differences in appearance of the animals, their habitats, and practice verbal and cooperative learning skills. They will also develop conclusions through kinesthetic learning.
3. In the Cotton Room, students will participate in activities using our Discovery Learning stations such as leaf rubbing, animal matching games, establish differences and similarities using graphic organizers (Venn diagram), role playing as plants and animals to distinguish differences between each, and investigate a real frog with guidance. These activities will enhance verbal and kinesthetic learning as well as discovery and hands-on instruction.
4. Students may participate in the Eco-Active boat ride option. Each activity will concentrate on the environment and the importance of taking care of it. They will be able to make real world connections by relating events to the Augusta Canal.
5. Students will answer questions throughout the learning experience to facilitate understanding and reinforce knowledge.

**Timeline:** 9:45 am-1:30 pm

Canal Critters Scavenger Hunt: 45 minutes

Discovery Learning Stations (Cotton Room): 30 minutes

Boat Ride (optional): 45 minutes

Discovery Walk: 30 minutes

### Materials:

- Copies of Leaf Rubbing Lab, Augusta Canal Animal Match, Venn diagram, and Canal Critters Scavenger Hunt & pictures of animals to hide.
- Rulers, crayons, tracing paper, magnifiers, hand sanitizer and other science equipment (as needed).
- Sidewalk chalk

### Assessment:

Students will show what they learned by taking 5-10 minutes at the end of the field trip to use sidewalk chalk to draw an animal or plant they learned about during the trip and sign their name. Ongoing assessment will take place throughout the course of the field trip with questions and activities, as well as worksheet results.