Fish is Fish

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Major Topics:
Organisms – Fish, Frogs, Basic Needs, Behaviors, Habitat, Life Cycle, Physical Characteristics

National Science Education Content Standards (1996)

Life Science
- The Characteristics of Organisms
- Life Cycles of Organisms
- Organisms and Their Environments

Summary:
A minnow and a tadpole live together in a pond and are the best of friends. As they become adults, the tadpole becomes a frog, and the minnow becomes a fish. The adult frog must now go on land to live and explore the world, leaving the fish in the pond. One day when the frog comes back, it tells the fish of all of the wonderful things it has seen, such as birds, cows, and people. The fish decides it wants to see the world too and jumps out of the water onto the riverbank, only to find that it cannot breathe on the land habitat. The frog comes to his rescue by pushing the fish back in the pond habitat. The fish reenergizes in his pond habitat and realizes that it does not belong on land, but in its own “most beautiful world of all worlds” — because a fish is a fish.
Fish is Fish
Leo Lionni

Organisms

Life cycle

Habitats

Pond/water

Land

Basic needs

Behavior patterns

Fish and frogs

Physical characteristics

Science Concept Map
Thinking Questions Based on Bloom’s Taxonomy:
*Fish is Fish*

1. **Knowledge:**
   Name the two animals in the beginning of the story. What types of animals do they become as adults? What things did the frog see in the world outside of the water? Where did the minnow and tadpole live? When they become adults, where did the frog and fish live? Where did the fish want to go?

2. **Comprehension:**
   How did the frog’s body change as it became an adult? Did these changes prepare its body for land? Why was the water the best habitat for the fish? Why did the frog leave the pond? Why did the fish want to leave the pond at first? How did the fish envision the animals on land? What would have happened to the fish if the frog was not nearby to help?

3. **Application:**
   Imagine a human living in the water, and explain what types of adaptations he or she would have to make. What type of physical characteristics would be necessary? Look at animals in your life, at school, home, or outside. How do they survive in their environments? Think about astronauts; how do they adapt their bodies to visit outer space? How could humans live in outer space forever?

4. **Analysis:**
   Compare and contrast the fish and the frog. Analyze the life cycles, the habitats, and their physical characteristics. Compare and contrast the two habitats, pond and land. How are the fish and frog specifically adapted to live in their environments? Think about a human’s needs. What would be the best habitat for a human?

5. **Synthesis:**
   Imagine that fish could live outside of the water. What kinds of bodies would they have to have in order to make this possible? How are all animals connected to their habitats? Why did the fish imagine the land animals as it did? Defend the fish’s reasons for wanting to stay in the water by the end of the story. How was the frog able to survive at one point in the water habitat and then on land? Could the frog have lived completely in the water as an adult? Explain its life cycle.

6. **Evaluation:**
   Which animal from the story — fish or frog — would you rather be? Explain your choice. Would you want to live like another animal? Explain your ideas.
Follow-Up Activities

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- Raise animals in the classroom that have a relatively short and unique life cycle. Consider mealworms, tadpoles, or caterpillars. Have students keep an observation log as they watch the animal’s life cycle and then research background information.

- Take a trip to a pond and observe animals and plants in their natural habitat. Have students generalize characteristics of plants and animals that thrive in a pond environment. Gather data using a variety of means and share conclusions in both visual and written formats.

- Have students use various art materials to create an imaginary animal with certain physical characteristics for surviving in its unique habitat. Have students explain why they created the animal and how its new adaptations allow it to survive. For example, create a picture or model of a fish that has physical traits that will allow it to survive on land. Explain the modifications to the features of the fish that allows it to survive on land.

- Study the physical characteristics of one or more animals. Identify how that animal’s features help it survive in its natural environment. Consider all of the animal’s basic needs when analyzing.

- Have students act out the life cycle of a fish and a frog. Create visual and written explanations of these changes as well. Compare and contrast the life cycles with other animals’ life cycles. Consider studying reptiles, amphibians, birds, fish, and mammals.

- Have students find and cut out pictures in magazines and catalogs showing humans at different stages of life. Group pictures by the different stages. Write about the life cycle of humans and how humans relate to their environment.

- Research other specific interests, curiosities, and basic information about organisms (fish, frog) and related habitats. Provide and encourage the use of multiple sources of information. Have students share their learning in a variety of ways.