

Discovery Lab Pre-Visit Activities Wonderful Water Grades K-2

Thank you for booking your field trip to the Orlando Science Center! As a means of preparing your students for their Discovery Lab and enhancing their experience, we are providing you with these pre-visit materials to share with your class.

Discovery Lab Objective:

Roll up your sleeves and get wet exploring the many different life forms that call a pond their home! Examine these creatures up close, complete field entries, and observe the adaptations of the plants and animals that live in our local ponds.

Next Generation Sunshine State Standards:

SC.K.N.1.3, SC.K.N.1.5, SC.K.L.14.3, SC.1.N.1.1, SC.1.N.1.3, SC.1.L.14.1, SC.1.L.14.3, SC.1.L.17.1, SC.2.N.1.1, SC.2.N.1.2, SC.2.L.16.1, SC.2.L.17.1, SC.2.L.17.2

Key Vocabulary:

- Consumer: an organism that feeds on other organisms for food
- Food Chain: transfer of energy through various stages as a result of feeding patterns of a series of organisms
- **Food Web:** the interconnected feeding relationships in a food chain found in a particular place and time
- Habitat: a place in an ecosystem where an organism normally lives
- Life Cycle: the entire sequence of events in an organism's growth and development
- Predator: an organism that preys on and consumes animals; usually an animal
- **Prey:** an organism caught or hunted for food by another organism
- Producer: an organism that makes its own food from the environment; usually a green plant

Key Concepts:

- Plants and animals are alike and different in the way they look and in the things they do.
- All plants and animals, including humans, need the basic necessities of air, water, food, and space.
- Life cycles vary among organisms and consist of different stages.
- Living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.
- Magnifiers make things appear bigger and help people see things they could not see without them.

Discussion Topics:

- There are five senses: seeing, hearing, smelling, tasting, and touching.

 How can we use our five senses to investigate the world around us? What can our senses tell us?
- Living things have many different needs. All living things have the same basic needs in common and every organism has its own way of making sure that its basic needs are met.

 What basic needs must be met to keep plants and animals alive and help them grow? What would happen to the plants and animals if these basic needs were not met? Compare and contrast the
- Every organism requires a place to live that satisfies its basic needs for air, water, food, and space. Such a place is called a habitat. Several different types of living things may all share a single habitat.

Create a list of habitats. What types of animals might live in each of the habitats?

ways that different living things meet their basic needs for survival.

In Class Activities:

- Science is about testing and making close observations. Some scientists use microscopes to take a close look. You can use a piece of paper! In the center of a piece of paper, draw a square that is I inch long on each side. Fold the paper in half and cut out *only* the I" square. Now you have a I" square window to examine things through. Choose something interesting: a tree trunk, a leaf, or a flower. Put your window over the object and look at it closely. Take your time this is not a race. To help you see more details, draw a picture of what's inside your square. Describe what you see: Is it wet or dry? Hard or soft? Smooth or rough? Alive or not? What colors and shapes do you see? Now you know how to observe and describe things in nature, just like a scientist!
- Go on a schoolyard safari! Look and listen for animals by searching carefully on the bark and leaves of trees, in the cracks of sidewalks, among blades of grass, and in the soil around plants. In addition to looking for actual animals, remember to look and listen for signs of animals, such as spider webs, feathers, nests, animal tracks, and bird or insect sounds. Even in the most urban environments, you can usually find some signs of animal life. Most of the animals your students find will likely be insects and other small creatures. All animals, large and small, need food, water, and shelter from their environment. Remember, people are animals too! Around the school, there will be plenty of signs of "people life."
- Classify animals in your very own picture zoo. Gather a large collection of pictures of plants and animals cut from magazines. Pretend the pictures are real plants and animals and organize them into exhibits for a new museum or zoo. How many different ways can you classify and group your plants and animals?

Additional Resources:

http://www.kidsbiology.com/ http://www.biology4kids.com/ http://www.epa.gov/kids/ http://kids.nbii.gov/ http://www.mbgnet.net/