

Kindergarten

Pre and Post Field Trip Teacher Resources

TEKS Objectives:

- K.2C - Gather information using simple equipment and tools to extend the senses.
- K.2D - Construct reasonable explanations using information
- K.2E - Communicate findings about simple investigations
- K.4A - Identify and use senses as tools of observations
- K.4B - make observations using tools including hand lenses, balances, cups, bowls and computers
- K.5A - Describe properties of objects and characteristics of organisms
- K.5B - Observe and identify patterns including seasons, growth, and day and night and predict what happens next.
- K.6A - Sort organisms and objects into groups according to their parts and describe how the groups are formed
- K.7A - Observe, describe, and record changes in size, mass, color, position, quantity, time, temperature, sound and movement.
- K.9A - identify basic needs of living organisms
- K.9B - give examples of how living organisms depend on each other

HISD Objectives:

- SCI.K.5B - Observe and identify patterns including seasons, growth, day & night and predict what happens next.
- SCI.K.9A - Identify basic needs of organisms including food, water, air and shelter.
- SCI.K.2E - Communicate findings about simple investigations.
- SCI.K.7A - Observe, describe, and record changes in size, mass, color, position, quantity, time, temperature, sound, and movement.
- SCI.K.5A - Describe properties of objects such and size and color and characteristics of organisms such as having fur or scales.
- SCI.K.9B - Identify and record examples of how living organisms depend on each other such as a human baby being fed by its mother.
- SCI.K.2D - Construct reasonable explanations using information.

Program Overview:

Living things need food, shelter, water and space to survive.



Key Vocabulary Terms:

Organism, Living, Habitat, Needs, Shelter, Space, Survive

Objectives: Students will investigate the basic needs of organisms. Students will gain the understanding that a living organism will make it habitat where its needs are being met.

Time Allocation:

45 minutes for each activity

Pre-Field Trip Activities

Activity One (Habitat Needs Introduction)

1. Introduce concept of habitat to children by setting up a classroom pet. In doing so, define the habitat as a home for the pet and identify the three needs of the pet. (water, food, and shelter). Assign classroom jobs to provide it fresh food and water on a daily basis.
2. The fourth need of all organisms, space, is more abstract to students. To help teach this concept, mark off a square area on the floor with masking tape. Have one volunteer hold pictures of water, food, and shelter of an animal. Ask more and more children to stand in the square pretending to be that animal until it is too full and crowded. Ask the students, "What do you need?" They are likely to answer more space or more room. Explain that the fourth need of all living things is space. Organisms need space in the right kind of environment where they can find food, water and shelter. If food, water, shelter or space is missing then the organism can't survive.

3. Review the four needs of living things: food, water, shelter, and space. Ask children to pick their favorite animal and draw a picture in its natural habitat illustrating its food, shelter, space, and water. For example, a child might draw a bear next to a cave eating a fish.

Activity Two (Pet vs. Wild)

1. Make a T-chart on the board with two titles, PETS and WILD. Show the class pictures of various pets and wild animals. For example: a dog chewing on a bone (pet), a fish in an aquarium (pet), a lizard climbing a tree branch (wild), a bee foraging around flowers (wild). Identify the animal as either a pet or wild animal and tape the pictures in columns under each heading.
2. Ask the students what is the difference between a pet and a wild animal. They might say wild animals live in the zoo and pets live in our homes. Ask the students how do animals that live in a forest get their food? Help them to infer that wild animals must find their own food, water and shelter, but pets get their food, water and shelter through people. When students go to the Houston Arboretum, the animals that they see will be wild animals. The animals must make their own shelter and find their own food. Student will observe many examples of this.
3. Give each child a piece of construction paper and fold in half. Label one side "Pet" and the other side "Wild". Ask each student to draw and label examples of each.

Activity Three (Habitat Hunt)

1. Take the students on a walk around your school grounds or nearby park to look for habitats of various animals such as a bird's nest, ant hill, or beehive.
2. On your walk, play "[Habitat Hunt](#)". The children will tally each animal home as they see it on their walk. For example, if they see two ant hills they will place two tally marks next to the picture of the ant hill. While on the walk, make sure you ask the students to describe the animal that lives in each habitat. For example, if you see a spider web, you can ask the students, "Who lives here? (a spider) How many legs does a spider have? (8) What does the spider eat? (bugs) Who eats a spider? (birds, frogs, lizards) Is the spider living or non-living? (living) Is its web living or non-living? (non-living)"

Post Field Trip Activities

Activity One (Adopt a Tree)

1. Take the students on a walk to a large tree in your school yard or park. Record the day, time and temperature in a journal. Write down the animals or animal homes that make their

home in that tree. Record the position on the tree and the size of the habitat. Ask student to predict if anything will change until the next visit to the tree.

2. Visit the tree weekly or monthly. Compare the habitats that changed since the last visit. Note any new habitats that were created and record those. Check your predictions. Continue to visit the tree during the school year.
3. Create a classroom tree bulletin board. As you discover what has changed on the outdoor tree, add/remove pictures of animals and its habitats to the tree. For example, if your class sees a nest, add a nest and bird to the bulletin board tree.

Activity Two (Habitat Tic-Tac-Toe)

1. Take the students on a walk and play [Habitat Tic-Tac-Toe](#).
2. Create classroom habitats of various small animals. Some simple habitats are crickets, snails, frogs/toads, fish, spiders, What do each of these critters need? Introduce the concept of food chains as you discuss the food needs of these organisms.

Cross-Curricular Activities

Math:

Using the "Habitat Hunt activity, construct a classroom graph of the various animal homes. Which homes did you see the most? Which home did you see the least? Use this worksheet once a month to test the results. Do the results change over time or over seasons?

Language Arts:

Read *The Salamander Room* by Anne Mazer. In this story, a boy finds an orange salamander in the woods and he thinks of many things he can do to turn his room into a perfect home for his salamander. After reading the book, create a class book of the various pets that your students have and their needs. Begin each page with, "I have a _____ and it needs _____. It love my _____ because _____.

Create a class chart of all the animals that were seen at the Arboretum. Pick one animal from the list to do further research to create a class book. Assign each student to research one fact about the animal. Collect facts to create a class book.

Write a thank you letter to the naturalist or docent who led your walk during your field trip. Ask students to describe a favorite plant or animal and its habitat. Did it live in the forest or at the pond? The address for the Houston Arboretum is 4501 Woodway Drive, Houston, TX 77024

Social Studies:

Opossums are the only marsupial animal in the United States. Other marsupials can be found in Australia. Find Australia on a world map. Compare and contrast the physical characteristics of Australian marsupials to the American marsupial.

List of Suggested Readings:

Mazer, Anne. 1994. "The Salamander Room" Dragonfly Books

Page, Robin. 1995. "I See a Kookaburra! Discovering Animal Habitats Around the World" Houghton Mifflin

Press, Judy. 2005. "Animal Habitats! Learning about North American Animals and Plants through Art, Science and Creative Play". Williamson Books

Relf, Pat. 1995. "Magic School Bus Hops Home: A Book About Animal Habitats" Scholastic Paperbacks

List of Suggested Websites:

National Wildlife Federation-

<http://www.nwf.org>

The Children & Nature Network-

<http://www.cnaturenet.org/>

Acorn Naturalists-

<http://www.acornnaturalists.com/>

Specializes in nature-related educational materials for kids.

Texas Park and Wildlife-

<http://www.tpwd.state.tx.us/learning>

Hooker Oak Elementary School-

<http://www.csuchico.edu/%7Epmaslin/nature/honature.html>

Here is a wonderful example of what one group of parents and teachers did at their school! It's truly turned into a community project. The page has links at the bottom to some other very useful information and teaching materials, all hosted by California State University at Chico.