WEEKDAY WONDERS

Content developed by the Tennessee Aquarium Education Department

TENNESSEE AQUARIUM

Diversity in Ecosystems: Day 5

This week, Weekday Wonders will help young scientists explore the variety of living things in our world. To do this, they will consider where animals live in different habitats, including oceans, rivers, streams, and forests. Young scientists will also have a chance to observe what lives in their own backyards and to learn the difference between a habitat and an ecosystem.

These curated activities are listed in a suggested sequence but may be done in the order that works best for you and your young scientists. Learn more about this series in the Introduction to Weekday Wonders.

Question of the Day

What's the difference between an ecosystem and a habitat?

Daily Nature Journal

Ask your young scientists to complete their daily nature journal using the Guide to Nature Journaling. They should look for new objects to observe.

Build a Plant Habitat

Remind your young scientists that this week has focused on where animals live. If a place provides food, water, and shelter for an animal, it is a habitat. Tell them that in this activity you are going to create a habitat for a plant.

Have your scientist gather the materials you will need for this activity.

- Gravel, stone, or pebbles
- Charcoal, optional but suggested if you want to keep your terrarium long term, or mesh
- Soil or dirt
- Plants and moss
- 2-liter bottle or a container with a lid, such as a large canning jar
- Scissors or a craft knife

If you are using a 2-liter bottle help your young scientist cut the top off at the point where they bottle begins to curve.

To begin, have your scientist place a layer of small rocks about 2 inches deep at the bottom of the container they have chosen. Explain to them that this layer represents bedrock that is under the soil.

If charcoal is available, have young scientist add a layer about the size of pebbles on top of the rock. This will help to keep the water in the habitat clean. If you do not have charcoal, any mesh covering over the rocks will work as it will keep the soil from filling in between the rocks. .

Next, have your young scientist add a layer of dirt or soil several inches thick. Have them think about how much they need to add in order to allow plants to take root.

Allow your scientist to dig small holes in the soil and place the plants in them. They can also add small toys or decorations. Have your scientist lightly mist or water the soil so that it is damp, not soaked, then replace the top of the container. *Note that if your scientist used succulents as their plants, the lid should not be tightly closed. The environment would have too much moisture for them to survive.*

Your scientist has made a plant habitat in a jar. Place it in a sunny window and encourage him or her to make observations over the next few days. Have your scientist write observations in his or her nature journal. Discuss how they think this habitat can provide food, water, and shelter for a plant.

A Model of Many Habitats

Ask your scientist if s/he thinks the plant habitat in the last activity would work as a habitat for a dog. Your scientist should realize that it would not. In this activity, they will create a model of many habitats together.

Have your scientist find a small cardboard box or shoe box. Then have him or her go outside and collect a wide variety of living and nonliving materials. Have your scientist use the materials to create a miniature scene from the outdoors.

Once your young scientist is happy with the scene, talk to them about the kinds of plants and animals that might live there. Have them count how many habitats they think are part of the scene. Remind your scientist that a habitat is an area that provides food, water, and shelter to a plant or animal.

When your scientist has counted the habitats that are in their scene, tell them that when you have several habitats together, it makes an ecosystem. An ecosystem is a group of living and nonliving things. Have them label the box with, “my ecosystem.”

Favorite Animal Journaling

Ask your young scientist to think of his or her favorite animal. Have your scientist draw or write about the animal’s habitat—where it gets its food, water, and shelter. Then ask your young scientist to draw or write about the animal’s ecosystem—the “neighborhood” where it lives with other plants and animals. Consider having older scientists do research to find out additional information.

Habitat Bingo

Habitat Bingo can help your young scientist be more observant about the ecosystem where you live. Print the bingo card on page 4 or draw a version of it. Ask your scientist to take a walk to find each item. When they find an item, have them sketch it in the box to mark that they found it.

Depending on the time they can spend doing this activity, have them try to get bingo or to fill the card. The next time your scientist goes out to explore, he or she may be able to find even more items!

HABITAT BINGO
Draw each item in its box as you find it.

Source of water	**Bird in a tree**	**Flying insect**	**Grass**	**Spider**
Take a deep breath. What do you smell?	**Two kinds of leaves**	**Bush with flowers**	**Tree**	**Material for a nest**
Insect on the ground	**Four-legged animal**	**Free Space: Draw a happy face!**	**Number of types of plants in an area the size of this paper**	**Bird singing**
Predator	**Bird flying**	**10 individuals of one species**	**Flower growing from the ground**	**Two kinds of birds at the same time**
Seed	**Weed**	**Snag (a dead tree)**	**Two-legged animal**	**Animal eating**