

Chapter Four

Habitats and Niche



Day One:

Today, you and your child will:

1. Read the text
2. Review the text with your child
3. Complete the student worksheets
4. Collect the materials you will need for days two and three

National Science Education Standards covered this week:

All organisms cause changes in the environment where they live. Some of these changes are detrimental to the organism or other organisms, whereas others are beneficial.

Humans depend on their natural and constructed environments. Humans change environments in ways that can be either beneficial or detrimental for themselves and other organisms.

Definitions

Humans	people
Habitat	the place where an organism lives in the environment
Niche	"nitch"; What an organism does in its habitat
Extinct	"x-tinkt"; When all of the organisms of a similar kind (population) are no longer alive throughout the world

Sample questions to ask your child after completing the weekly reading.

Describe the habitat you live in.

The child can provide a description of their home, neighborhood or community.

They may mention all of the resources they receive in this area as well.

Describe your niche.

The child may choose to describe what they do on an average day. This is perfectly acceptable.

How do you think your niche is different from your parents' niche? How is it the same?

Answers will vary. The child will need to identify any similarities and differences in how everyone in your family acts within your habitat.

Answers to worksheet questions:

Page 1:

1. habitat
2. humans
3. extinct
4. niche

Page 2:

2. humans
4. habitat
3. niche
1. extinct

Unit One Review Answer Key

Every day, I wake up wanting a piece of chocolate cake, but I do not eat it! Instead, I go into the kitchen and make something else that I know I need. My home is my habitat and fixing my breakfast is my niche.

While fixing my breakfast, I never use paper plates because I want to reduce the amount of trash I make. Instead, I use a glass plate which I can wash and reuse. During my breakfast, I drink a can of juice. When I am done, I place the empty can in a special container so that it may be recycled.

Be certain to go over your definitions for the test!

Day Two:

Today, you and your child will:

1. Review Day One using the following text
2. Run the first activity this week

The following text will give you the most important items to review for your activity today.

All organisms depend upon their habitats to provide the necessary resources in order to survive.

Because of this, most living things choose to live in a habitat that can maintain their survival.

Where o' where shall I live?

Objective:

The child will be able to understand how living things establish their habitat based on the resources they need.

Materials:

Paper

Pencils/crayons/markers/paint

Procedure:

Ask your child to draw a picture of their home. Inside their pictures, have them identify as many of the living creatures that exist both inside and outside of their homes.

The following questions may help you guide your child:

- What living things can you find inside your home?
- What are the non-living thing in your drawing? (This includes the air, water and land as well)
- What living things can you find in your yard? Your neighborhood?

When your child has completed their drawing, ask them the following questions:

Why do you think these living things live where they do?

Direct their answer to an understanding of how these living things live in a habitat. And, each of their habitats have all of the resources they need to survive.

How does each of these living things affect the place where they live?

This will be different for every circumstance; however, all living things use up resources in some way.

How do land, air and water affect where things live?

Your child should identify that living organisms typically choose a habitat where they can find the resources they need to survive.

Now have your child imagine what would happen if you took all of the living things in the drawing that are inside of the home and placed them outside and vice versa. What could possibly happen?

The resources that are needed by plants and animals (like trees and squirrels) may not be found inside their home. (not unless the trees could train the squirrels to water them from time to time.)

Organisms that are used to living indoors may have a hard time finding the food, water and shelter they need to survive. Make certain that your child understands that it is resources which guide an organism to choose a habitat!

Day Three: Lab Activity

Today, you and your child will:

1. Review Day One using the following text
2. Run the first activity this week

The following text will give you the most important items to review for your activity today.

The ability to enhance our senses through technology has been crucial to the advancement of science.

With even the smallest of microscopes, one can make observations of a much smaller, but equally impressive, habitat for tiny organisms.

Life in a drop of water

Objective:

Children will explore the huge amounts of life in a drop of water with their own microscope.

Materials:

Paper punch (optional)

Old postcard, index card or manila folder

Aluminum foil

Needle

Toothpick

Petroleum jelly

Eye dropper or drinking straw

Glue

Tap water

Scissors

Water sample from a pond

Flashlight

Procedure:

Punch or cut out a $\frac{1}{4}$ " hole in the center of the cardboard.

Cut and glue a small square of aluminum foil that covers up the hole.

Try not to get any glue over the hole.

Gently poke the needle through the center of the hole. Make certain the hole is smooth and round...the rounder the better.

With the tip of the toothpick, smear a circle of petroleum jelly around the hole in the foil. You will want to place a circle of jelly around **both** sides of the foil.

With the eyedropper or straw, place one drop of clean water into the pinhole. You may need to tap the cardboard to make certain that the water gets into the hole.

Turn on the flashlight and point it upwards. Place a drop of pond water onto the flashlight.

Place the pinhole directly over the drop of pond water and look at the object through the water drop.

By moving the cardboard towards and away from the light source, you should get the contents of the pond water into focus on the water drop. You should be able to see a large amount of movement in your pond water sample. If not, swirl your sample around a bit and try another drop.

Explanation:

With all life, regardless of how small or large, there is always a struggle and competition for survival. A pond is a habitat with a huge range of living organisms which compete for energy supplies, food, space, and other resources. This is their niche. With the microscope you created, you should be able to witness a large amount of pond organisms going about their niche in order to survive.

Test: Unit 1

Chapters 1-4

Match the words in the second column to the best available answer in the third column. Place the correct number on the blank line.

_____	want	1) the basic things that an organism can use everyday
_____	recycle	2) anything you feel like having that is not a need
_____	material resources	3) resources you can touch like gas and wood and food
_____	resources	4) the place where an organism lives in the environment
_____	habitat	5) when all of the organisms of a similar kind (population) are no longer alive throughout the world
_____	renewable resource	6) a group of similar organisms living in the same area
_____	reduce	7) using your resources again after changing them
_____	population	8) a resource that can be made again like living organisms
_____	reuse	9) any living creature on the planet
_____	extinct	10) what an organism does in its habitat
_____	organism	11) using your resources again without changing them
_____	niche	12) using less resources

Which one is right? Circle the correct answer.

1. Which of the following lists contain only abiotic things:

- a) TVs, pop bottles and vegetables
- b) cars, airplanes and horses
- c) crayons, markers and pens

2. One way to reduce the amount of trash in your home is to:

- a) never throw anything away at all
- b) reuse things many times
- c) throw out your trash only one time a week

3. An organism's niche is:

- a) the place where an organism lives
- b) the things an organism does
- c) what an organism eats

4. Which of the following items can you recycle:

- a) paper
- b) pencils
- c) crayons

5. What is the difference between reusing and recycling?

- a) a reused resource must be changed before it is used again
- b) a recycled resource cannot be reused
- c) a recycled resource must be changed before it is used again

6. Humans can...

- a) reduce, reuse and recycle things from the environment
- b) take, add and replace things from the environment
- c) only harm the environment

Test: Unit 1

Answer Key

Matching

2 want

7 recycle

3 material resources

1 resources

4 habitat

8 renewable resource

12 reduce

6 population

11 reuse

5 extinct

9 organism

10 niche

Multiple choice

1. c

2. b

3. b

4. a

5. c

6. b

Write a story

Answers will vary. However, the child must use the words want, need, habitat and niche within their description of their daily routine.