

Lesson 4: Natural Resources (2 Days)

Getting Started

? Questions to Explore

- How do people's environments meet their needs?
- How does the environment affect living things?



Facts and Definitions

- Natural resources can come from the ground, plants, or animals.
- People are dependent on natural resources for food and other products.

⦿ Skills

- Identify natural resources and cite ways to conserve and replenish natural resources. (SS)
- Identify and describe the people, vegetation, and animal life specific to certain regions and describe their interdependence. (SS)
- Cite ways people modify the physical environment to meet their needs. (SS)
- Obtain and combine information to describe that energy and fuels are derived from natural resources and that their uses affect the environment. (S)

✂ Materials

- | | |
|--|--|
| • butter | • maple syrup |
| • construction paper | • measuring cups and spoons |
| • crayons, colored pencils, or markers | • old magazines* (Activity 1 - Option 2) |
| • dried cranberries | • popped corn |
| • journal | • scissors |
| • large bowl | • timer |
| • large sack | • walnuts |

Introduction

Ask your child if she can explain what a natural resource is and provide examples. Discuss the idea that natural resources help people live in their environments.

Natural resources can be bought or sold from one person to another. Ask your child to record the following definition in her journal:

Natural resources are resources found in nature that are used by people and can be a source of money.

Ask her to identify any natural resources she can find inside or outside your home.

Activities

Activity 1: Finding Natural Resources

Ask your child if she can think of places where natural resources can be found. Explain that natural resources can be in the ground, can be plants or come from plants, or can be animals or come from

animals. Give her three sheets of construction paper and ask her to label one "In the Ground," another "Plants," and the third "Animals." Next, choose one of the following options for your child to complete.

Option 1

On the "Finding Natural Resources" activity page, your child can color the resources and cut them out. Encourage her to color the pictures according to their actual colors. If she is not sure about the color of a resource, help her to locate a colored picture of the resource in a reference book or online. Then ask her to cut out the resources and sort them according to where each resource comes from.

Answer Key:

- In the Ground: oil, coal, diamonds, water
- Plants: sugar cane, cotton, wheat, oranges, trees
- Animals: eggs, honey, fish, cows, milk

Option 2 (Advanced)

This option is different from Option 1 because the child is not given pictures of natural resources but has to create or research her own examples.

Give her a variety of magazines or let her print pictures she finds on the Internet. She can then cut out the pictures of natural resources and sort them according to where they come from.

Optional Extension

To extend this activity, discuss a few resources that may be a bit confusing to categorize:

- Oil and coal are made from plants that died and were buried a long time ago, but they are considered to be resources from the ground instead of plant resources.
- Honey and molasses can both be found in trees, but molasses is a plant resource, and honey is an animal resource.
- Sugar and salt look a lot alike, but sugar is a plant resource and salt is found in the ground.

Activity 2: Products of Natural Resources

Explain to your child that many natural resources found in the environment are used to create products and materials for people to use or consume. For example, cotton is used to make t-shirts. Give your child the page called "Products of Natural Resources." On this page she will find five graphics called webs. In the center circle of each web she can record the names of five natural resources. Then on the lines extending from each web she can write the names of products created from the natural resource. The first one (oil) has been done for her.

Activity 3: Resources We Use

Discuss how people depend on the natural resources found in their environment. For the next 24 hours your child is going to make a list of all the natural resources your family uses. After 24 hours she will write a sentence about how each resource was used and a sentence that explains where the resource comes from. For example, if the natural resource is gas, she could write, "Gas is made from oil that comes from the ground. We use gas to drive cars." If she finds quite a few examples, have her choose 5-8 to write about.

Examples: wood to burn a fire, water to drink or take a bath, vegetable oil to cook with, apples to eat, natural gas to heat our home, and cotton for clothing.

Day 2

Activity 4: Making Maple Syrup

Ask your child to tell you what grows on farms. Tell your child that there is a kind of farm called a maple syrup farm. The farmers grow trees and make maple syrup from the sap of the trees. Give your child the sheet called "Making Maple Syrup." Instruct her to cut out each of the squares at the bottom of the page. Ask her to read how maple syrup is made — one time aloud and one time silently. Then she will put the steps in order.

Answer Key:

1. A hole is drilled into the side of a maple tree.
2. A tap, spout, or tube directs the sap into a bucket.
3. The sap is boiled.
4. The sap is filtered to take out "sugar sand."
5. The syrup is put into a container for sale.

Activity 5: Maple-Nut-Berry Popcorn Balls

Let your child taste maple syrup. Then let her use the maple syrup to create popcorn balls using the recipe on the "Maple-Nut-Berry Popcorn Balls" sheet. Help her locate the ingredients she will need. Provide assistance as needed with following the recipe.

Activity 6: Natural Resource Products Scavenger Hunt

Give your child a large sack and tell her that she has ten minutes to find as many items as she can that are made from natural resources. Tell her she gets 3 points for every item that comes from a natural resource found in the ground and 2 points for every item that is made from a plant or animal natural resource.

Explain that she will get points only for those items for which she can identify the natural resource used to create them. She can find items that are outside and inside the house. If an item is too large to fit in the sack, such as a gas stove, she can draw it on a sheet of paper and put it in the sack.

Set a timer for ten minutes. When her hunt is over, let her dump the contents of her bag on a table and explain what natural resources are needed to create each object and where the resources can be found in the environment. Give her points for the objects she is able to describe. Then let her sort the items based on whether the resources used to create the items come from the ground, a plant, or an animal.

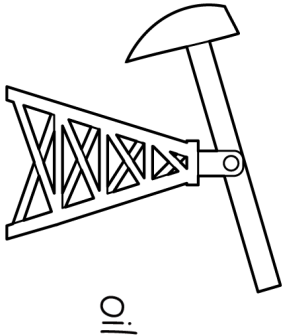
Let her select five items and ask her to write a sentence for each item that explains how it is used and why it is important.

Wrapping Up

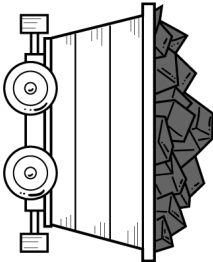
Ask your child to give you the definition of a natural resource. Then ask her to give you examples of different natural resources, explain where they come from, and describe products that come from the natural resources.

FINDING NATURAL RESOURCES

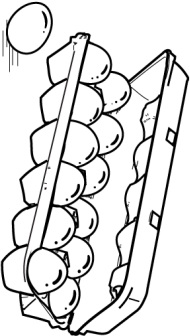
Directions: Cut out the resources and sort them according to where they can be found.



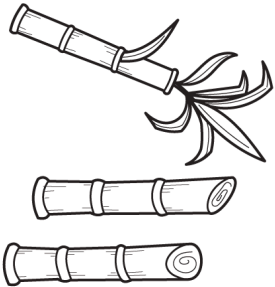
oil



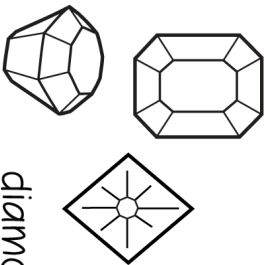
coal



eggs



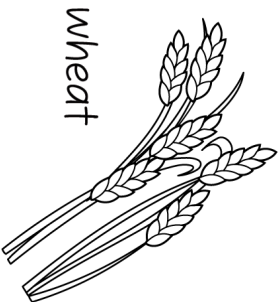
sugar
cane



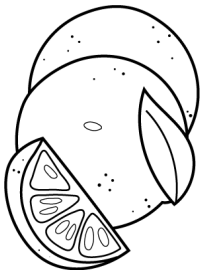
diamonds



cotton



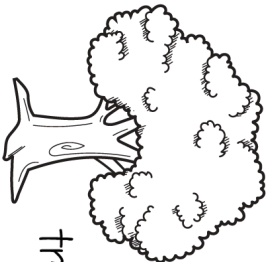
wheat



oranges



water



trees



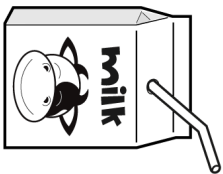
honey



fish



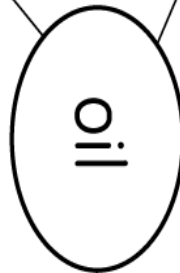
cows



milk

PRODUCTS OF NATURAL RESOURCES

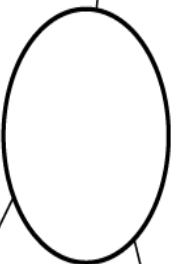
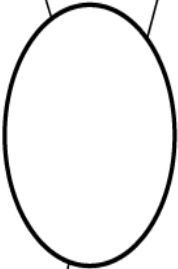
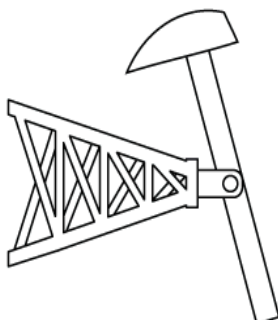
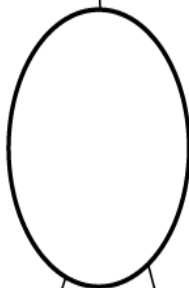
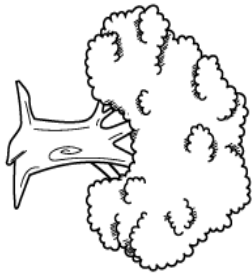
Directions: Record the names of four different natural resources. To complete the webs, list products created from each resource.



plastics

asphalt

gasoline



Making Maple Syrup



Directions: Read the passage, cut out the pictures at the bottom of the page, and then put them in order to show how maple syrup is made.

You start the syrup-making process by drilling a small hole into the trunk of a sugar maple tree. This is called tapping. The sap starts to "run" or flow out of the hole when the weather is just right. Cold nights (with temperatures below freezing) and warm days (with temperatures above freezing) allow the sap to flow.

Next, you put a spile (tap), spout, or tube in the hole and then a bucket underneath. The sap runs down the tube and collects in the bucket.

Sap from the sugar maple tree is about 98 percent water and 2 percent sugar and minerals. To make pure maple syrup, you must boil the sap to evaporate a lot of the water away. Maple syrup should be about 1/3 water and 2/3 sugar. As the sap is boiled, it becomes thicker and sweeter.

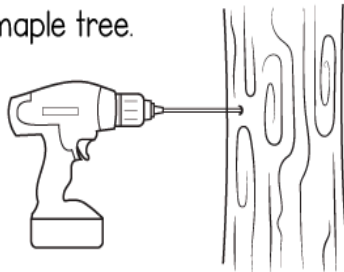
You must then filter the boiled sap to remove "sugar sand," which is minerals and dirt that have built up as the sap boiled.

After the maple syrup is filtered, it is put into a container for sale. Maple syrup is all natural and can be used on pancakes, waffles, and French toast.

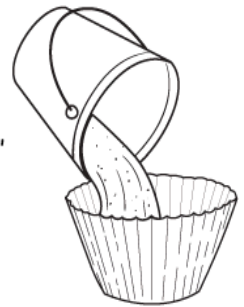
The syrup is put into a container for sale.



A hole is drilled into the side of a maple tree.



The sap is filtered to take out "sugar sand."



A tap, spout, or tube directs the sap into a bucket.



The sap is boiled.

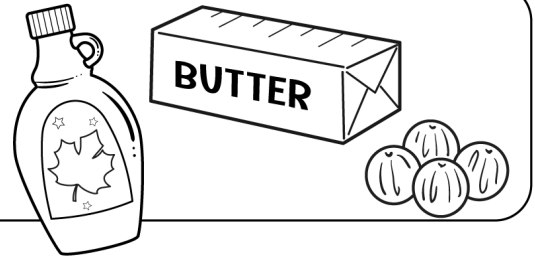


Maple-Nut-Berry Popcorn Balls

Directions: Use maple syrup to make these popcorn balls by reading the recipe and following the steps.

Ingredients:

- walnuts
- dried cranberries (or raspberries or blueberries)
- butter
- popped corn
- maple syrup



Directions:

1. Pop enough popcorn to fill a large bowl.
2. Place popped corn in the large bowl.
3. Add walnuts and berries.
4. Mix well with a spoon.
5. Separate mixture into 3 smaller bowls.
6. With an adult's help, heat 1/2 cup of syrup with 1 Tbsp of butter. Let the mixture boil for about 6 minutes. Stir constantly so it doesn't burn. Be very careful.
7. Remove the syrup from the heat and pour it carefully over each popcorn mixture. Use a spoon to mix everything together.
8. Wait a couple of minutes for the syrup to cool. Shape the popcorn into balls with your hands.
9. Let the balls sit for a few minutes to let the syrup harden.
10. Enjoy!

