



Title: Arkansas Natural Resources Make Life Great			
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Course: Science, Social Studies, Language Arts, Library Media		Duration: 30 minute lesson	
Grade Level(s): K-3			
Objective: The student will be able to identify products derived from natural resources and discuss the ways those products are used in their lives. They will be able to link the product to the natural resource(s) from which it was made. The students will also learn the myriad of products made from natural resources in Arkansas.			
Summary of Lesson: This lesson will teach students the difference between natural resources and the products made from them.			
Arkansas Standards			
Subject:	Grade Level(s):	Code:	Standard:
Science	K	K-ESS3-1	Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live. [Clarification Statement: Examples of relationships could include that deer eat buds and leaves, therefore, they usually live in forested areas; and grasses need sunlight so they often grow in meadows. Plants, animals, and their surroundings make up a system.]
Language Arts	K-3	RI.K.1 RI.1.1 RI.2.1 RI.3.1	Ask and answer questions about key details in a text.
		RI.K.5 RI.1.5 RI.2.5 RI.3.5	Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.
		RI.K.7 RI.1.7	Use the illustrations and details in a text to describe its key ideas.



		RI.2.7 RI.3.7	
Social Studies	K-3	G.10.K.1 G.10.1.1 G.10.2.1 G.10.3.1	Explain ways people use natural resources in the community in which they choose to settle.
Library Media	K-3	IL.1.1.1	Demonstrate knowledge of the purpose and organization of the school library media center to locate resources by referring to <ul style="list-style-type: none"> • major sections (e.g., easy, fiction, nonfiction, reference, digital resources) • author’s last name, alphabetically
		IL.1.1.4	Recognize parts of a book used to locate information <ul style="list-style-type: none"> • author • dedication page • illustrator • physical features (e.g., back cover, front cover, spine) • table of contents • title • title page
		IL.1.1.5	Identify text features (e.g., headings, bold print, illustrations, italics, electronic menus, icons).
		IL.1.1.7	Recognize information in a variety of print/non-print /digital resources (e.g., atlases, audiobooks, books, databases, dictionaries, eBooks, encyclopedias, globes, maps, videos, websites)
		IL.1.1.9	Recognize sources of information outside the school library media center (e.g., people, public libraries, digital resources)
		SR.4.1.1	Demonstrate knowledge of library policies and procedures in the school library media center.

Teacher Excellence and Support System:

Domain 3 – Focus on 3a-Communicating with Students, 3b-Using Questioning and Discussion Techniques, 3c-Engaging Students in Learning

Instructional Strategies and Practices:

The lessons related to this topic focus mainly on STEM (Science, Technology, Engineering, and Mathematics) strategies and practices.

Bloom’s Level: *(Highest Level Only)*

Analyzing – classify, categorize, distinguish



Materials and Resources:

Materials

- Texts, magazines or handouts with information about natural resources
- Internet access for iPad, computer or projector so all students can research topic
- 2 note cards for each student
- Tape for all students
- Markers / crayons / writing utensils for all students
- String for all students
- Pictures of Arkansas' natural resources (one per student) – These can be cut out of magazines or printed from the internet. Arkansas state parks brochures also have great photos for this activity.

Resources:

Suggested web sites: For background information on natural resources and products made from them, use the web sites below. These web sites may change over time. If a web site is no longer available, use the following key words and phrases to find more current resources.

- What are natural resources? Renewable? Non-renewable?
- Products made from natural resources
- Products made from petroleum (oil and natural gas)
- Natural resource lesson plans
- Natural resources Power Point
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Natural Resources Power Point: <http://classroom.jc-schools.net/SS-units/presentations/nat-res-products.ppt> – This PowerPoint about natural resources to products is intended for 3rd grade social studies but can be used in 2nd grade as well

Energy 4me: <http://energy4me.org/resources/download-lesson-plans/> –Free downloadable lessons on various energy topics. These lessons also correspond with the Oil and Natural Gas book. (Download at www.energy4me.org). All lesson are aligned to US National Science Education Standards

Arkansas Museum of Natural Resources: www.amnr.org/

Petroleum Products: <https://www.ranken-energy.com/index.php/products-made-from-petroleum/> - list of items made from oil

Products made from cotton: <http://www.cotton.org/pubs/cottoncounts/what-can-you-make.cfm> – list of products made from cotton

Products made from crude oil: <https://www.eia.gov/energyexplained/oil-and-petroleum-products/> – What can be made from crude oil and petroleum by products

Formative Assessment:

The final portion of the activity in this lesson is the formative assessment. If the students connect the correct natural resource to the appropriate product then understanding has been achieved. If not, continue the lesson with more examples.



Teaching Notes:

Make sure there is a place set up and ready to use for this activity because students will have to move around to carry out the lesson. Be sure to get the natural resources walk approved by the administrator as required by your school.

Student Activity:

1. Teacher: Present the following information about natural resources to the class – project on the overhead and read aloud together with students.

Natural resources are those things found in the environment (in nature) around you. They are used to make the man-made products we have. We classify natural resources as renewable or non-renewable.

Renewable resources are those things we find in nature that nature makes more of in our lifetime, like sunshine, air, wind, and trees.

Nonrenewable resources are things that cannot be made again in our lifetime or that take a very long time for nature to make again, like minerals such as diamonds and coal, or fossil fuels like oil and natural gas.

We use all of these natural resources to make products we use every day.

2. See <http://classroom.jc-schools.net/SS-units/presentations/nat-res-products.ppt> or search the internet for a more recent Power Point to introduce this activity.
3. Using a large flip chart, have each student write a natural resource on the chart as a brainstorming exercise. Tear off the list of natural resources and post it in the classroom.
4. Using the flip chart again, make a T-chart with natural resources on one side and products on the other. Clarify the difference between a natural resource and a product that might be made from it. For example:

<u>Natural resource:</u>	<u>Product:</u>
Tree	Wooden desk
Apple	Apple pie
Bear	Rug from its pelt
Diamond	Jewelry
Oil	Diesel fuel, candles, life jackets,

5. Make sure the students understand the difference – let them give a few examples to ensure complete understanding. Address any issues that come up during this exercise



and clear up any misunderstandings about the difference between a resource and a product.

Hand out a note card and crayon to every student. Take the class on a walk outside and ask students to look around for natural resources. Remind them that **natural** resources are things that come from **nature** – people don't make these. They should each write on the note card all the natural resources they see on the walk. Younger students will need help deciding what natural resources they see. When students return from the resource walk have them tell the class the resources they wrote down. Correct their responses if necessary.

Add other natural resources they did not include to note cards. Tape all the cards in a line on the wall.

6. Hand out a note card to each student again – this time have them write down a product they use every day or something they see in the room that is a product. Have the students share these with the class and tape them in a line across from the natural resources.
7. At this point there are two lines of cards – one line is natural resources, the other is products. Give each student a piece of string (use colorful yarn for this) long enough to reach from the natural resource line of cards to the products line. Allow each student in turn to go to the wall and tape their string to one resource then connect the other end of the string to a product made from that resource. If the student connects the resource with a correct product then understanding has been achieved and the student has mastered the concept. If there are mismatches – address those with the class and see if other students have ideas on where to place the string. Allow students who made mismatches to try again.
8. To complete the lesson, provide pictures of various natural resources in Arkansas. Allow students to choose one resource to use for a homework assignment. To further confirm their understanding of the concept of natural resources students could be asked to cut pictures out of magazines or other materials you provide.
9. For homework assignment, ask the student to take the picture they selected home and have their family help them identify three products made from that Arkansas resource. If participation on homework is lax or if your school does not allow homework, make this a class research project. Let students use the internet and book sources to find products made from their resource. The librarian would be a great help in the research efforts for this project. A homework form is included in the Student Handout section of this lesson. A due date can be added in the blank provided on the form.

See Student Handout: A printable copy is available on the web site at

<http://www.arkansasenergyrocks.com/educators/lesson-plans-k-8/>



**Arkansas' Natural Resources Make Life Great
Student Handout
Arkansas' Natural Resources and the Products They Make Possible
Homework Assignment Form**

Student Name _____

Natural Resources are those things made by nature like sunshine, air, soil, trees, animals, oil, natural gas, coal, and metal ores.

Products are the man-made materials we design using natural resources as raw materials.

The picture you have selected illustrates one of Arkansas's Natural Resources. Glue the picture to the back of this page.

Work with your family to find three uses of the natural resource you have and return the picture and this form with those three products listed to class by:

(Date)_____.

You may look up information to find products using textbooks, magazines, internet searches, and common knowledge of those you ask for help.

My natural resource is _____.

Three Products made from this resource are:

1. _____

Where I found this information _____

2. _____

Where I found this information _____

3. _____

Where I found this information _____