Natural Resources

Overview

Students will observe natural resources in their schoolyard. They will complete a concept map displaying their existing background knowledge and what they learn from the lesson.

Lesson Planner

Time Required	1 hour
Key Concepts/Terms	Natural Resources, Environment, Needs, Minerals
Prerequisites	• Knowledge of expectations for outdoor classroom conduct. • Definition and examples of natural resources
Setting	• 10-minute field study outside • Remainder of lesson inside

Standards

MD VSC 3rd Grade Science

6.A.1. Recognize and explain how Earth's natural resources from the natural environment are used to meet human needs.

Objectives

The students will explain how Earth's natural resources are used to meet their needs by making observations outside and recording their ideas.

Materials Required

- Clipboards with notepaper, notebooks, or notesheet
- Pencils
- Chart paper
- Multiple class sets of colored utensils (i.e. 20 red markers, 20 blue markers, 20 purple markers, etc.)
- Science textbook

Background Information

The following are specific objectives from the VSC that should help guide the lesson and student discussion.

6.A.1

a. Describe natural resources as something from the natural environment that is used to meet one's needs.
b. Identify water, air, soil, minerals, animals, and plants as basic natural resources.
c. Explain that food, fuels, and fibers are produced from basic natural resources.
d. Identify ways that humans use Earth's natural resources to meet their needs.
e. Explain that some natural resources are limited and need to be used wisely.

Procedure

Follow the steps in the table below to conduct the activity. **Sentences in bold are suggestions for what teachers might say to students.** *Items in italics are possible teacher answers to questions.*

Phase	Step	Action
Engage	**1**	Ten Minute Exercise: Introduction to concept maps/outdoor learning. If students are unfamiliar with concept maps and/or using the schoolyard as a classroom, begin by creating a concept map together as a class to go over rules and expectations for learning outside. As you go through the concept map, think aloud for how you are choosing where to draw your bubbles to connect different concepts on the map. For instance, **"I am going to write the idea first and then put a bubble around it to make sure my bubble isn't too big or too small for my information."** Or **"I am going to connect this idea to that one instead of the main topic since they are related."** Or **"That's a good idea! Where would you connect that idea on our concept map?"** Have in mind some expectations for outdoor learning specific to your schoolyard that you want to be sure students include. For instance, • *Regular school rules still apply (respect each other, listen to the speaker, follow directions, etc.)* • *No yelling, screaming, tapping on/waving into windows that will disrupt class learning inside the school building.* • *"Look, learn, and let go" when you see insects.*

	2	Ten-Minute Review In groups (or individually with pre-printed maps), have students set up a concept map whose center circle reads, "Natural Resources." Begin students with the following ideas branching off: water, air, minerals, plants, animals, soil. Begin each group with one color marker (i.e., all of group 1 has purple). **"On your concept map, add information that you already know about natural resources. Also, add any questions you may have about the topic."** Go around the room and check group understandings of the topic and how to use a concept map. Talk to them a little to make sure they have a general understanding of the topic so that when they are outside, they will know what they are looking for.
Explore	3	Directions (5 minutes) Have students set up their notepaper (name, date, etc.). Give students directions for what to do outside. They should work in small groups, pairs, or individually. They may use the prepared organizer with a concept map for their notesheets. **"When outside, you will be looking for natural resources. Draw a picture or make of list of what you see. You may work as a group, partners, or individually."**
	4	10-Minute Field Study Bring students outside. Keep track of the time, giving students ample warning for when it's time to head back in. Give students prompting if needed to find natural resources.
Explain	5	Concept Maps (10 minutes) Once back in the classroom, have students add what they found outside to their concept maps and (if it's a picture) add a caption explaining the evidence that they drew. Assist groups as necessary. Groups should use a new color marker (i.e., group 1 now uses green).

Evaluate	6	Reading (10 minutes) Have students in their groups use their science textbooks to read additional information on their topic. All additional information should be added in a new color. Encourage students to add and/or connect important vocabulary words to their maps. Options: • Students can be given a time limit to read independently and to use post-it notes to code text (N=New information; ?=I have a question about this or I wonder....?). Then students add information to their concept maps in their groups. • Students read together as a group and add information to their concept maps while reading.
Elaborate	7	Post the concept maps in the classroom. Throughout the unit, have a third (and fourth, fifth, etc. if you choose) color available for students to continue adding to their concept maps as they learn new lessons and things related to interactions between living things.

Vocabulary Understanding of the following terms is required in this activity.

Term	Definition
Natural Resource	Something from the natural environment (water, air, trees, fuels) that is used to meet one's needs and wants.
Environment	The physical surroundings of an organism which includes the living and nonliving components.
Needs	Something a living thing must have in order to survive.
Minerals	A naturally occurring, nonliving solid with a characteristic crystal, structure and definite chemical makeup.

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