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Stone Oak Park Exploration: 2nd Grade

Canyon Ridge Elementary School (San Antonio, Tex.)

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Stone Oak Park – 2nd Grade

Title: Stone Oak Park Exploration	Subject/Course: Science
Topic: Natural Resources, Rocks, and Plant Adaptations	Grade: 2nd Grade
	Designer(s): Canyon Ridge Teachers

Stage 1- Desired Results

Established Goals:

<p>Understandings:</p> <ul style="list-style-type: none"> *substances that make up the earth’s surface are considered natural resources *natural and manmade resources are different *people use rocks in everyday life *Rocks have different size, texture, and color *rocks are natural resources that are affected by their surroundings *plants have adaptations to help meet their needs *different plants have different adaptations *each part of the plant has a purpose and is important for its survival (stem, leaf, root, flower) *plants need things to survive (sunshine, water, animals, all their parts) *plants depend on their surroundings to survive 	<p>Essential Questions:</p> <p><u>Natural Resources</u> What are examples of manmade and natural resources at the park? Are there more natural or manmade resources at the park? Why do you think that is?</p> <p><u>Rocks</u> How do people use rocks in their everyday life? Why are rocks different? What factors contribute to rocks physical properties (size, shape, texture...) changing?</p> <p><u>Adaptations</u> How do plants adapt to meet their needs? Why do plants have different adaptations? How do plants rely on the environment to meet their basic needs?</p>
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<p>Knowledge and Skills: <i>(TEKS; NEISD Scope & Sequence; Core Knowledge Curriculum, other content or skill pieces)</i></p> <p>2.1 A Demonstrate safe practices during classroom and field investigations.</p> <p>2.2A Ask questions about organisms, objects, events during observations and investigations.</p> <p>2.2B Plan and conduct simple descriptive investigations</p> <p>2.2E Compare results of investigations with what students and scientists know about the world.</p> <p>2.7 Science concepts. The student knows that many types of change occur.</p> <p>2.7C Distinguish between natural and manmade resources.</p> <p>2.9A Identify the basic needs of plants</p> <p>2.10B Observe, record, and compare how the physical characteristics of plants help meet their basic needs such as stems carrying water throughout the plant.</p>	<p>Materials Needed:</p> <p>Clipboard, <i>Manmade/Natural Resources Chart</i> (Attachment 1), <i>Stone Oak Park – Rocks</i> (Attachment 2) digital cameras, <i>Stone Oak Park – Plant Adaptations</i> (Attachment 3), pencil, science journals, backpack, magnifying glasses</p> <p>Teachers: sentence strips, markers, copies of worksheets</p>
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Stage 2- Assessment Evidence

Performance Tasks:

Teacher will compile pictures from the park and choose a variety of natural and manmade photos to print into an individual sort. Each student will receive the sort and cut, sort, and glue into their notebooks classifying manmade and natural resources.

Other Evidence:

Written reflections in science journals

Stage 3- Learning Plan

Before going to the park:

- Students should have begun their study on natural resources.
- Students will be able to distinguish between natural and manmade resources and identify different types (rocks, water, trees, soil, etc.)
- Students will have knowledge of physical properties and how to describe/distinguish characteristics of objects.
- Students should have knowledge of adaptations and their importance to plant survival.
- Review Stone Oak Park Rules PPT.
- Obtain a signed field trip permission slip from each student.

AT THE PARK:

Activity 1:

- Students will work in groups to take notes and pictures (using Natural/Manmade Chart on clipboard) about natural and manmade resources seen. In addition to the individual chart, classes will be stopping to discuss, describe, identify, and explain what they are discovering. Class will discuss their findings using the data they collected on their chart. Students will discuss if the park had more manmade or natural resources and write a reflection in their science notebook about their findings.

Activity 2:

- To help facilitate physical property discussion, have each student choose one rock from the surroundings. Students will use a hand lens to observe the characteristics of their rock. As a class we will compare similarities and differences in the rocks including texture, shape, size, and color. Students will set categories for the classification and then come up and put their rock in the correct category. You can repeat classification with different physical properties. (Teachers might want to bring sentence strips and markers to make the categories)
- Class will travel together throughout the trip. Teachers will stop at points to have students observe certain rocks and their features. Students will identify features and turn and talk with partners about the physical properties of the rock and how it has been affected by its surroundings and environment. **Examples: Big rock at the theater- class looks at size, texture, and shape. Think about how it has changed or will change over time. Another example is the side of the rock path is washed out. Have class talk about why the rocks might be moved from their original path (power of water to move things) and what they think it might look like 3 years from now.** Ask the class to describe another instance when weather has changed the environment. Be sure to point out and observe a variety of rocks. Students may take notes throughout the trip to help with their reflection when we get back to class.
- In their science notebooks students will reflect on their trip to the park and then discuss their thoughts and observations in small group. Students will write about how the rocks they saw were different and

questions they still have.

Activity 3:

- Students will work with a partner to observe and identify different plant adaptations and how they help the plant to meet its needs. Students will draw adaptations and then observe and compare **like** adaptations (leaf to leaf, stem to stem...). Students will record on their plant adaptation chart using the expectations discussed in class. As a class the teacher may stop to discuss student findings and point out specific adaptations throughout the trip. Classes may also discuss how plants rely on the environment (weather, animals, sun, water...) to meet their basic needs.
- Have students share their plant adaptation chart. In their science notebooks students will reflect on why adaptations are different despite being in the same environment.

Name _____

Date _____

Stone Oak Park- Natural Resources

Natural Resources	Manmade Resources

Name _____

Date _____

Stone Oak Park- Rocks

Physical Properties	How rocks are affected by surroundings and weather
How rocks are used in the park	I wonder...

Draw a picture of what the trail looks like now	Draw a picture of what the trail might look like in 3 years
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Name _____

Date _____

Stone Oak Park- Plant Adaptations

Leaf 1	Leaf 2	Stem 1	Stem 2
Compare		Compare	
Root 1	Root 2	Flower 1	Flower 2
Compare		Compare	