

2012

Stone Oak Park Exploration: Kinder

Canyon Ridge Elementary School (San Antonio, Tex.)

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Stone Oak Park - Kinder

Title: Stone Oak Park Exploration		Subject/Course: Science	
Topic: Temperature, Living/Nonliving, Soil Characteristics, Evidence of Conservations		Grade: Kinder	
		Designer(s): Canyon Ridge Teachers	
Stage 1- Desired Results			
Established Goals:			
Understandings: *There are safety procedures, environmentally appropriate and responsible practices at the park. *The natural world has recognizable patterns that change (seasonal changes). *The Earth is constantly changing – some changes can be seen, others cannot. *The Earth’s natural resources undergo changes in size, mass, color, quantity, and temperature.		Essential Questions: *What are the safety procedures at the park? *What tools would be most helpful to investigate weather and seasons in the park? *How is the temperature different within the park? *What does nature look like during this season?	
Knowledge and Skills: (K.5) Matter and energy. The student knows that objects have properties and patterns. The student is expected to: <ul style="list-style-type: none"> • (B) observe, record, and discuss how <i>materials can be changed</i> by heating or cooling. (K.7) Earth and space. The student knows that the natural world includes earth materials. The student is expected to: <ul style="list-style-type: none"> • give <i>examples</i> of ways rocks, soil, and water are useful. (K.1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and uses environmentally appropriate and responsible practices. The student is expected to: <ul style="list-style-type: none"> • (C) demonstrate <i>how to use, conserve, and dispose</i> of natural resources and materials such as conserving water and reusing or recycling paper, plastic, and metal. : (K.9) Organisms and environments. The student knows that animals have basic needs and depend on the living and nonliving things around them for survival. The student is expected to: <ul style="list-style-type: none"> • differentiate <i>between living and nonliving things</i> based upon whether they have basic needs and produce offspring; and • (B) examine <i>evidence that living organisms have basic needs such as</i> food, water, and shelter for animals and air, water, nutrients, sunlight, and space for plants. 		Materials Needed: Digital cameras, 2 medium-sized thermometers, 6 pair binoculars (if available), magnifying glasses (1 per every 2 students), baggies (one for each student), Students Need: clipboard, temperature and season observation recording sheet, scavenger hunt recording sheet, pencil	
Stage 2- Assessment Evidence			

Performance Tasks:

Students will create a brochure for someone to use before visiting the park showing the various things that can be seen during each season. It will include the changes over seasons, evidence of natural resources and their uses, examples of kinds of plants.

Other Evidence:

Completed recording sheets

Stage 3- Learning Plan**Pre-Lesson to be done on home campus:**

- Decide whether the trip will be conducted as a whole group or in small groups with a parent leader for each group.
- Define procedure: also known as instructions or rules; steps that are taken to ensure the desired outcome.
- Review living/nonliving
- Show the Park Procedures PowerPoint and discuss.
- Obtain a field trip permission slip from each student.

Activity 1: Before Leaving Home Campus

- Show/Review the Park Procedures PowerPoint, discuss what a procedure is and what procedures for the park lesson will be before leaving to the park. Have students turn and talk to each other about 3 things they will do to stay safe at the park.
- Ask: What tools would be most helpful to investigate evidence of weather and seasons in the park?
- Gather necessary tools such as 2 thermometers, many binoculars to be shared, science notebook, pencil, baggies, Wet Ones, and back pack.

Activity 1: AT PARK:

- As a class find a location with a memorable landmark such as the amphitheater or the rattlesnake sign to place thermometers (one in a sunny location, one in a shady location). Take a picture of each location, being sure to include what the park vegetation looks like during the current season (trees, grass, etc.)
- Take the two thermometers and look at the temperature on each of the thermometers and point out how they are the same. Explain to the students we will place one thermometer in a sunny location and another in the shade. Have students predict which thermometer will show more/less heat.
- Then walk on the park path and allow students to observe/ record what plants and trees look like during the current season. Ask questions such as:
 1. What does the weather feel like today?
 2. What is predictable about the weather in this season?
 3. What does nature look like during this season and why?
 4. What differences do you notice between the various types of trees and why do you think this is?
 5. What do you notice about the plants and grass in the area?
 6. What do you see on the ground? Leaves? Broken branches? Dead plants vs. dormant?
 7. Make predictions on how the vegetation may change in various seasons.
- Return to the memorable landmark you chose at the start of the walk look at the one thermometer. Observe the reading on the thermometer. Have students record the temperature on their recording sheet. Then have students predict what the thermometer in the other location will look like – will the temperature be warmer or cooler? What will the thermometer look like?
- Return to the second location. Observe the thermometer. Have students record the temperature on their recording sheet. Ask: What comparisons can you make between the first thermometer and this one? What heats the outside air? Discuss. Ask: How is temperature different within the park? Have students turn and talk, then discuss as a class.
- Gather as a whole group to discuss: What did they notice along their walk? What conclusions can you

make about this current season?

Activity 2:

- Have the students turn and talk about what a natural resource is? Continue to walk along path and look for examples of natural resources in the park. Record how natural resources are being used? (rocks being used to line the path, soil being used by the plants, etc.)
- Looking closer at soil: you will stop two times along the path and make close observations of the soil. At each stop take a sample of soil in a bowl or baggie and have the students observe the composition of the soil?
 1. What is the soil made of?
 2. What color is the soil?
 3. Why is soil important?
 4. What type of soil is it?
- Along the walk look at the natural resources and how they are being used. Specifically rocks:
 1. How are rocks being used in the park?
 2. Why are the rocks an important resource in the park?
 3. How do the rocks differ throughout the park?
 4. What would the park look like without rocks?
- As they are returning to the amphitheater have the students look for evidence of conservation within the park. (Recycling receptacles, trash cans, etc.)
 1. What are some ways the park helps the environment?
 2. What impact could litter have on the park? What solutions can you propose for eliminating litter at the park?

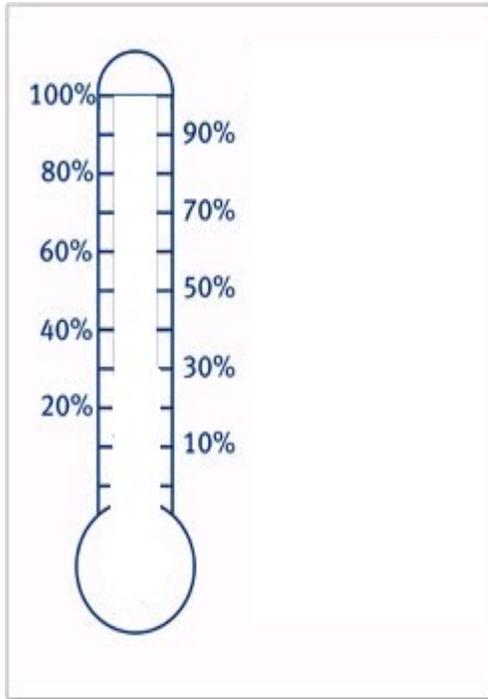
Activity 3:

- Have students break into small groups allowing students to conduct a scavenger hunt. Have each student graph the number of times he/she finds the items listed.
 1. Compare what they saw and the way their graphs look.
 2. Why were some things easier to find than others?

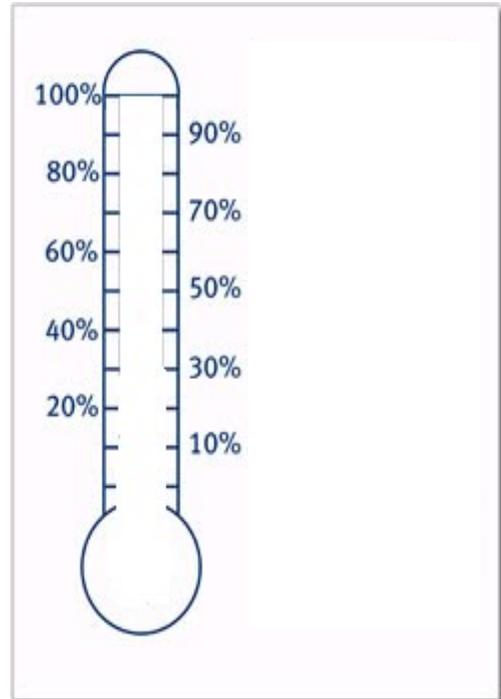
Name: _____

Park Observation Sheet

Temperature in Shade 



Temperature in Sunlight 



Pictures of trees and plants

