

INVESTIGATION DIRECTIONS

Lesson Focus Questions: *Where does the soil and rock in a delta come from, and where does it go? Does the rock and soil ever change?*

While doing investigations A, B, and C, think about how they might help you answer the Lesson Focus Questions.

INVESTIGATION A

- Find the pictures of a tree growing out of a crack in a boulder.
- Talk about the pictures that were taken in 1999 and in 2014. What differences do you see?

In your science notebook

- 1) Describe what has happened to the tree and the boulder in the years between 1999 and 2014.
- 2) Predict what will happen to the boulder in another 50 years. Explain why you think so.

INVESTIGATION B

- Look at the two cans of soda. One can is frozen and the other is not.
- Talk about how the frozen soda can is different from the soda can that is not frozen.

In your science notebook

- 3) Why was the frozen soda can deformed? What will happen to the can when the soda inside thaws?
- 4) Describe what you think happens over time when water freezes and then thaws in a crack in a rock.

INVESTIGATION C

- Find the small plastic bottle and the bag of rocks.
- Count the rocks. Write this number in your science notebook.
- Place the rocks in the plastic bottle. Put the top on the bottle. Shake the jug vigorously for 2 minutes while holding the cap on the bottle. Pour out the rocks and count them. Write this number in your science notebook.

In your science notebook

- 5) Describe what differences occurred to the rocks after the jug was shook.
- 6) Thinking back on what happened to the rocks in the bottle, explain what might happen to a large piece of rock that rolls down a mountain slope.

“Earth’s Changing Surface”

Lesson 5 Analogy Chart

Lesson Focus Questions: *Where does the soil and rock in a delta come from, and where does it go? Does the rock and soil ever change?*

Part of model	... is/are like ...	Part of real world	Process:
Soda can			
Soda in the can			
Frozen soda in the can			
<p align="center">Pictures of a tree root growing in a crack in a rock</p>			

Tree in Rock Photos

Picture was taken in 1999.



Picture was taken in 2014.



photos courtesy of Dr. Christopher Woltemade; adapted from RESPeCT ©2014 CPP and BSCS Science Learning

Soda Cans Photo



Two soda cans. The soda can on the right was left in the freezer.