

Name: _____ Date: _____

Task Directions

Focus Questions: *Can mountains grow so tall that they reach outer space? Why or why not?*

As you work on the tasks below, think about how they might help you answer these questions.

Task A

- Observe the two pictures of a tree growing in the crack of a boulder. (The first picture was taken in 1999, and the second was taken in 2014.)
- Talk about any differences you notice between the two pictures. Focus on the boulder and the tree.

In your science notebook:

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

Task B

- Observe the two cans of soda. One can is frozen, and the other isn't.
- Talk about any differences you notice between the two cans.

In your science notebook:

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

Task C

- Gather the materials you need: a small plastic jug and a bag of small rocks.
- Count the rocks in the bag. Record this number in your science notebook and draw a picture of what the rocks look like before you begin.
- Place the rocks in the small plastic jug and secure the lid on the jug. Take turns shaking the jug vigorously for a total of 2 minutes. (Each group member should shake the jug for about 30 seconds.) Pour the rocks onto a paper towel and count them. Record this number in your science notebook and draw another picture of the rocks.

In your science notebook:

1. Describe any differences you notice in how the rocks looked before and after you shook them in the jug.
2. Think about the rocks in the jug and predict what might happen to a large boulder that rolls down a mountain slope.