# Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_

**Student Page**

**Title:** Mountain Barriers

**Introduction:** Mountains can affect many abiotic and biotic factors.

**Procedures:**

1. Create a “mountain range” by arranging the rocks near the center of the bottom of the clear container.
2. Poke 10 holes in the sides of a paper cup, and then tape the cup into a corner of the container.
3. Fill the container with room-temperature water until the rocks are covered.
4. Add three drops of food coloring to one cup of hot water and SLOWLY pour the hot colored water into the paper cup.
5. Take short notes on what is happening with the hot and cold water, include a drawing, and answer question 1 and 2.
6. Empty container of water and replace “mountain range”. Fill the pan with hot, clear water.
7. Add food coloring to cold water and pour it into the cup in container. Observe, take notes, and answer questions 3 and 4.
8. Answer remaining questions.

**Data:**

1. Describe what you see after step four.
2. Draw what you see after step four.
3. Describe what you see after see after step seven.
4. Draw what you see after step seven.

**Analysis:**

1. How do you think the rise of mountain can affect the surrounding land?
2. How do you think the rise of mountains can cause changes in the plant and animal life in an area?
3. In this experiment, give an example of how abiotic factors can affect biotic factors.
4. Do you think that mountain ranges and deserts are connected? Why?
5. In this experiment, give an example of how the lithosphere has interacted with the atmosphere.

6. Plate tectonics is responsible for the formation of new mountains. How might the moving continents have affected the worlds climate in the past?

1. Name one thing you learned.