Start the activity by clicking the “Ecological Succession Activity” link under the Science Websites & Links Tab on my homepage - mrkeefer.weebly.com

**Procedure: SUCCESSION**

1. Using the first tab labeled “Succession”, define what succession is below:

**Procedure: PRIMARY SUCCESSION**

1. Now choose the tab labeled “Primary Succession”
2. Using the “Temperature and Rainfall” slider control, select “LOW” temperature and then watch the animation.
3. What creates the island at the very beginning (re-run the animation if necessary)?
4. What happens with TOP SOIL and NUTRIENTS as time passes?

5. IN ORDER OF SUCCESSION, describe the sequence of ecological changes that take place on island:

a.

b.

c.

d.

e.

1. How much TIME does this PRIMARY SUCCESSION take when temperature and rainfall are LOW?
2. Fill in the blanks: After succession, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ account for most of the

vegetation on the island,leaving some \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and other plant life near the shore.

1. Now set the “Temperature and Rainfall” slider to MEDIUM and then watch the animation.
2. How much TIME does this PRIMARY SUCCESSION take when temperature and rainfall are MEDIUM?
3. Now set the “Temperature and Rainfall” slider to HIGH and then watch the animation.
4. How much TIME does this PRIMARY SUCCESSION take when temperature and rainfall are HIGH?
5. The volcanic island is solid rock. Where does “brown soil” come from? Hint: think HUMUS

**Procedure: SECONDARY SUCCESSION**

1. Choose the tab labeled “Secondary Succession”
2. Click the arrow to start the fire in the forest! This will trigger SECONDARY succession.
3. How are the TOP SOIL and NUTRIENTS changing during this secondary succession?

What explanation can you give for why there is a difference from primary succession?

1. IN ORDER OF SUCCESSION, describe the sequence of ecological changes that take place after the fire:

1.

2.

3.

4.

5.

1. Explain how PRIMARY and SECONDARY succession compare when it comes to the amount of TIME it takes and the development of TOP SOIL and NUTRIENTS in the ecosystem? Give reasons why they are different.
2. Now choose the “Quiz” tab and take the first quiz on Primary Succession – (only 2 errors allowed).
3. After Primary Succession is complete, how are the organisms ARRANGED on the island? In other words, where would you find them as you came ashore from the water and climbed to the peak of the island?

Ocean

Peak

1. Now take the second quiz on Secondary Succession and RECORD the correct results below.