

MAIN LESSON:**Erosion and Weathering****OVERVIEW:****ACTIVITY TIME:**
60 minutes

In this mini-lesson, Jr. Scientists will learn that erosion is the wearing of land by forces such as water, wind and ice. This process has helped form many interesting features of Earth's surface through time. Jr. Scientists will create a landform model to demonstrate and make observations of how water can change its shape and understand the process in which canyons are formed. Jr. Scientists will also be designing and testing ways in which they may prevent erosion.

OBJECTIVES:

- Jr. Scientists will define and understand the weathering of land by forces.
- understand how water can change its shape and understand the process in which canyons are formed.

DISCUSSION:

1. **What is weathering?** Weathering is the process where rocks are dissolved, worn away or broken down into smaller pieces.
2. **What is erosion?** Erosion is the process where natural forces like water, wind, ice, and gravity transports or move rocks and soil.
3. **What is a canyon?** Dip cracks in the Earth's ground that curve around. Land that goes down.
4. **What makes a canyon?** Canyons come from water raining on the land. Rivers carve into the land with their rushing waters, wearing away the land over millions of years. The power of the running water works like and excavator.

LAB ACTIVITIES:
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- “Weathering and Erosion”, tray activity (refer to Generation Genius activity sheet)
- “Sugar Cube Wind Weathering”, activity

- MATERIALS:**
- 1 Bag of Sand
 - 1 Pen or pencil
 - 1 Cup of small rocks
 - 1 large bottle of water
 - 1 Baking tray or similar container

- INSTRUCTIONS:**
1. In one half of the tray, press a glass with the sand (must be sloped downward)
 2. Lightly drag a pen or pencil through the sand in a “S” shape to create a riverbed.
 3. Place stones along the riverbed.
 4. Slowly pour water where the riverbed starts.

VIDEOS:

- Generation Genius-Weathering and Erosion

- You Tube: SciShow Kids The Gran Canyon



<https://www.youtube.com/watch?v=oZZEJMtLOKU>

MINI-LAB :

SUGAR CUBE WEATHERING ACTIVITY

MATERIALS:

- 1 small plastic cup with lid
- 1 sugar cube
- 1 washable marker

INSTRUCTIONS

- 1.Trace and color all the edges of the sugar cube.
2. Place sugar cube inside the plastic cup
- 3.place cup lid on the cup
- 4.Let the Storm Begin! Shake the cup about 10 times. What do you notice?
- 5.Shake the plastic cup 10 more times faster than the last time. What is happening to the sugar cube(Land)?
6. Continue shaking the cup and observe the changes that happen due to the force you apply to the cup.

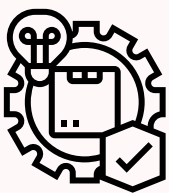
MINI- LESSON GROUP

DISCUSSION:



The sugar cube represents mountains. In this demonstration every time you shake the cup you are simulating the effects cause by weather on Earth's landforms over time. Weathering and erosion are constantly changing the surface of planet Earth

LESSON CLOSURE:



1. Lab Cleanup- after groups have finish their lesson/lab activity, instruct them to clean up their areas and pick up any material that needs to be collected and put away.
- 2.If the lesson has a take- home project make sure that every single project is in good condition and presentable to send home.(take home projects are hold on a table until the end of the day).