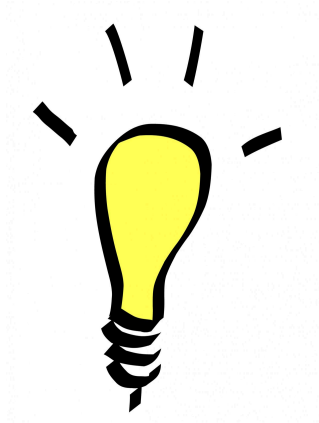




KVSOP Bertini / Knox
STEAM ... Erosion & Weathering
Earth Science

Name _____

Date _____

Standards:

- Engineering:
 - MS-ETS1-1: Criteria & Constraints
 - MS-ETS1-2: Design Schematics
 - MS-ETS1-3: Test & Analyze Data
 - MS-ETS1-4: Revise Model & Test
- Content:
 - ESS1-1: Volcano, Earthquakes, Erosion
 - ESS2-1: Earth's Materials and Systems
 - ESS2-2: Earth's Systems
 - MS-ESS2-2: Earth Cycling Material
 - MS-ESS2-4: Water
 - MS-ESS3-1: Evidence of Geoscience Processes

References (video clip)

- Weathering and Erosion
<https://www.youtube.com/watch?v=R-Iak3Wvh9c>
- Youtube: Stream Table Demo
<https://www.youtube.com/watch?v=c2B1Maeat0c>

Focus Questions: (after watching the above video answer the following questions)

1. What factors shape the Earth's landform?

a. Small-Scale: _____

b. Large-Scale: _____

2. What does the term mean?

a. Hydrosphere: _____

b. Geosphere: _____

3. What is weathering?

4. What are the five common factors that contribute to weathering?

5. What is erosion?

6. What is the difference between weathering and erosion?

WHAT IS YOUR CHALLENGE:

Your challenge is to create a model of how water changes the surrounding landscape. You **MUST** identify the following terms within your model:

- Meander
- Cutbank & Sandbar
- Delta
- Sediment & Deposition
- Stream Bed
- Water Source

MATERIALS:

- Stream Table
- Sand, Dirt, or Soil
- Water Source
 - Hose & Faucet
- Food Coloring
- Barrier (Medium Rock & Artificial Trees)

DIRECTIONS

1. Set up the stream table
2. Create the stream using the soil
3. Allow the water to run through the created channel.
4. Illustrate and label the water channel.



5. Add food coloring at the water source.
6. Create an illustration of what you notice.



7. Add a natural barrier to the stream. Record and illustrate what you notice happening to the stream.



8. Try it with a different barrier, did anything change? Record and illustrate what you saw. _____



REFLECTION

1. How does velocity (increase/decrease) effect erosion?

2. What do you notice about the cutbanks?

3. What happens when you add natural barriers to a river flow?

4. What factor increases the rate of erosion? Fast moving water or slow moving water?
