Components of Activity

Earth 25& Earth 26

WHAT THIS ACTIVITY IS ABOUT: This activity is about cross-cutting concepts in science.

Crosscutting Concepts represent common themes that span across science disciplines. These concepts identify universal properties and processes found in all the science disciplines.

INSTRUCTIONS:

1. **Briefly scan through each paragraph before starting.**
2. **Carefully read the 1st paragraph. Underline and/or circle key ideas and words.**

   Circle either YES or NO for each of the cross-cutting concepts on that page that apply.
3. **Carefully read the 2nd paragraph. Underline and/or circle key ideas and words.**

   Circle either YES or NO for each of the cross-cutting concepts on that page that apply
4. **Return to the 1st paragraph. Write a brief response for each cross cutting concept marked YES.**

   At bottom of page, circle the number of the cross-cutting concept which BEST fits the paragraph.
5. **Return to the 2nd paragraph. Write a brief response for each cross cutting concept marked YES.**

   At bottom of page, circle the number of the cross-cutting concept which BEST fits the paragraph.
6. **At the bottom of each page, describe WHY you selected that cross-cutting concept as the BEST fit.**
7. **Complete a VENN diagram on the back page for the two topic paragraphs.**
8. **Write a 50 word essay. Summarizing your discoveries, ideas, and conclusions about the paragraphs.**

Earth 25 Earthquakes Volcanoes & Tsunamis

An earthquake (also known as a quake, tremor or temblor) is the shaking of the surface of the Earth, resulting from the sudden release of energy in the Earth's lithosphere that creates seismic waves. A tsunami is unlike normal ocean waves, which are generated by wind, or tides, which are generated by the gravitational pull of the Moon and the Sun. Rather, these are a seismic sea wave **–** a series of waves in a water body caused by the displacement of a large volume of water, generally in an ocean or a large lake. Earthquakes, volcanic eruptions and other underwater explosions (including detonations of underwater nuclear devices), landslides, glacier calvings, meteorite impacts and other disturbances above or below water all have the potential to generate a tsunami. (topic) *Does this paragraph mention, describe, imply, refer to, or convey:*

1. (YES) (NO) any **patterns**?
   in what way >> _____
   _____
2. (YES) (NO) any **cause and effect**?
   in what way >> _____
   _____
3. (YES) (NO) a **quantity, numeric scale, or proportion**?
   in what way >> _____
   _____
4. (YES) (NO) a **system, or organized structure**?
   in what way >> _____
   _____
5. (YES) (NO) about **energy or matter?** (*Especially flows, cycles, and conservation*)?
   in what way >> _____
   _____
6. (YES) (NO) the **structure or function** of something?
   in what way >> _____
   _____
7. (YES) (NO) concepts of **stability and/or change**?
   in what way >> _____
   _____

Circle the number which BEST represents the paragraph? (1) (2) (3) (4) (5) (6) (7).
Why did you choose this number? >> _____
_____

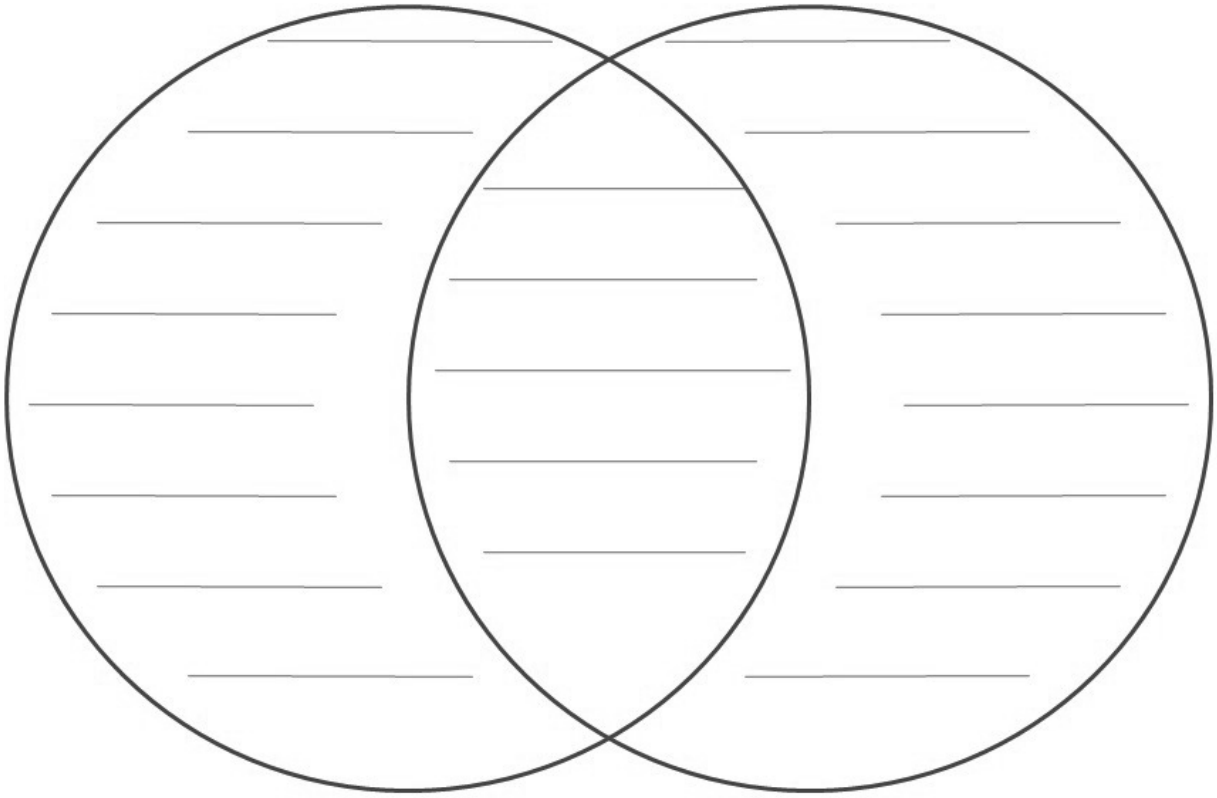
Earth 26 Weathering Erosion & Rivers

In earth science, erosion is the action of surface processes (such as water flow or wind) that remove soil, rock, or dissolved material from one location on the Earth's crust, and then transport it to another location. Rivers of the world are a significant factor in erosion. Rivers exert hydraulic action **–** a force of the river against the banks can cause air to be trapped in cracks and crevices. Rivers also exert abrasion **–** rocks carried along by the river wear down the river bed and banks. Erosion and weathering are not the same thing. Weathering does not include movement. Weathering is the breaking down of rocks, soil, and minerals as well as wood and artificial materials through contact with the Earth's atmosphere, water, and biological organisms. (topic) *Does this paragraph mention, describe, imply, refer to, or convey:*

1. (YES) (NO) any **patterns**?
   in what way >> _____
   _____
2. (YES) (NO) any **cause and effect**?
   in what way >> _____
   _____
3. (YES) (NO) a **quantity, numeric scale, or proportion**?
   in what way >> _____
   _____
4. (YES) (NO) a **system, or organized structure**?
   in what way >> _____
   _____
5. (YES) (NO) about **energy or matter?** (*Especially flows, cycles, and conservation*)?
   in what way >> _____
   _____
6. (YES) (NO) the **structure or function** of something?
   in what way >> _____
   _____
7. (YES) (NO) concepts of **stability and/or change**?
   in what way >> _____
   _____

Circle the number which BEST represents the paragraph? (1) (2) (3) (4) (5) (6) (7).
Why did you choose this number? >> _____
_____

Earthquakes Volcanoes & Tsunamis **Weathering Erosion & Rivers**



Write a 50 Word Essay about the topic paragraphs here …

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