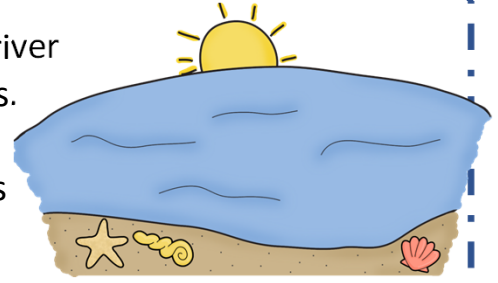


Water: Earth's Sculptor

Water can be gentle, like a calm lake, or powerful, like a rushing river or Niagara Falls. Over time, water can change the land in big ways. This process is called erosion. Erosion happens when water flows over soil and rocks, picking up pieces and carrying them away. It's like how you might scoop up sand with your hands at the beach.



Rivers are great examples of erosion. They start as small streams high in the mountains, where rainwater or melting snow collects and flows downhill. As the water travels, it picks up soil, sand, and even rocks. This makes the river stronger and helps it carve out a path through the land. Some of the world's most famous valleys and canyons, like the Grand Canyon, were formed by river erosion over millions of years.

But water doesn't just take away; it also gives back. When rivers flood, they spread water over the land. This might sound bad, but it actually helps the soil. The floodwater leaves behind nutrients and minerals that make the soil very good for growing plants. That's why many farms are found along riverbanks.

Lakes also shape the land. They form in places where water collects, like in a valley between mountains. Over time, the water can wear away at the land around the lake, making it bigger. Lakes can also fill up with sediment, which is the mix of soil and tiny rocks that water carries. When a lake fills up with too much sediment, it can turn into a swamp or even dry land.

The ocean has a big impact on the land too. Waves hit the shore, breaking down rocks into sand and creating beaches. The ocean can also create cliffs by eroding the land along the coast. In some places, the ocean's waves are so strong that they can change the shape of the coastline.

Water can even move underground. This is called groundwater. Groundwater can create caves by dissolving rock, especially a type of rock called limestone. Some of the most amazing caves in the world, like Carlsbad Caverns, were made by groundwater.

Water is always working to shape the land. It's a natural artist, creating and changing the Earth's surface in ways that can be both dramatic and beautiful.

1. Read the passage and underline any word or sentence you struggled with.
2. Answer the questions on the following page.

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Answer according to the reading passage:

1. What is erosion?

- a. when water freezes
- b. when water shapes the land
- c. when water falls as rain

2. How was the Grand Canyon formed?

- a. by ocean wave erosion
- b. by wind erosion
- c. by river erosion

3. What does floodwater leave behind that is good for farming?

- a. decomposed fish
- b. decomposed leaves
- c. nutrients and minerals

4. What do ocean waves create when they crash against the shore?

- a. cliffs
- b. caves
- c. beaches

5. What type of rock do groundwater caves often form in?

- a. granite
- b. Slate
- c. Limestone

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Open Response Questions

Open Response Questions for Thinking Skills:

1. Inferring
 2. Making Connections
 3. Summarizing
 4. Visualizing
-
1. Why is erosion by water considered a natural form of art??
 2. How does the formation of valleys and canyons by rivers demonstrate the power of nature?
 3. How might the landscape look different if there were no water on earth?
 4. Describe a time where you observed erosion.
-
- How can we protect our landscapes from negative impacts of water, like excessive erosion?
 - Why is it important for us to understand the impact of water on the landscape?
 - What are the benefits and drawbacks of flooding?
 - What role does water play in the life cycle of plants and animals?
 - Describe how caves are created.