

Underline or
highlight 5
important
vocabulary words.

Science Shorts -7

Weathering Rocks

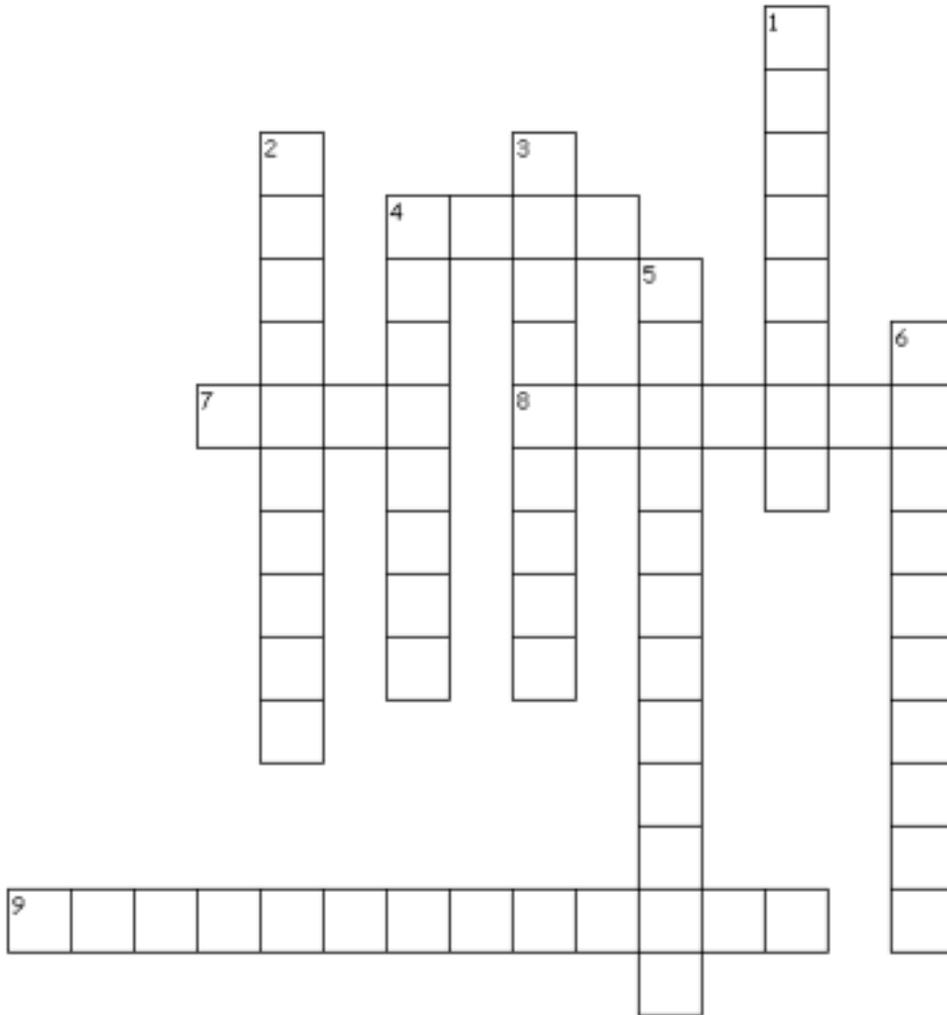
What is weathering? Weathering is the breaking down or wearing away of the Earth's surface. When weathering happens, rocks are changed forever. The amount of weathering that happens to rocks depends on many factors. These include the structure of the rock, the climate it is in, its location and how long it is exposed to any conditions that cause weathering. The weathered material that is left behind could include rock fragments, sand, clay and soil.

There are two different types of weathering: mechanical and chemical. Mechanical weathering occurs when rocks and minerals crumble into smaller pieces. This usually begins at a crack in a rock that undergoes pressure or expands. It can also happen because a change in temperature, water freezing in the cracks or animals. Imagine a herd of wild horses running over your front yard. This would change the landscape! That is what weathering does to the Earth's surface, but much more slowly. Larger rocks are broken into smaller and smaller rocks. They finally become grains of sand. Did you know that all the sand at the beach used to be part of bigger rocks?

Chemical weathering occurs when rocks break down due to a chemical reaction and minerals in the rock change. This is what gives some rocks a rusty look. When plants and animals die and decay, acids form that attack the rocks and make them start to crumble. When the CO₂ in the air combines with rain it forms an acid called carbonic acid. This is called acid rain and causes rocks to break down. Once a rock starts to chemically weather, mechanical weathering will also start breaking down the weakened rock.

Have you ever visited a cave? Many caves are formed from chemical weathering. The beautiful cave formations are made when water dissolves the limestone in the rock. As water seeps through the rock, the dissolved limestone moves with it. When the water drips and evaporates, it leaves hardened limestone hanging down from the ceiling or sticking up from the cave floor.

Weathering Rocks



Across

- 4. Formed by decaying plants and animals
- 7. What rocks change into
- 8. top of the Earth
- 9. Gas that combines with water to make an acid

Down

- 1. Type of weathering that occurs due to changes in the composition of the rock
- 2. Type of weathering that occurs due to physical changes
- 3. Type of rock that forms caves
- 4. Forms when carbonic acid an water fall from the sky
- 5. Type of acid formed by carbon dioxide combining with water
- 6. The breaking down of rock