

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Lesson 25 Science Journal

## Anchor chart

**Earth Features****Rock Layers**

- Fossils in the rock layers provide evidence of past environments, revealing changes over time.
- The oldest layers are at the bottom, and the youngest layers are at the top.

**Weathering**

- Weathering is a natural process that breaks rock into smaller pieces.
- Natural materials, including moving water, ice, wind, and plants, cause weathering.

**Erosion**

- Erosion is the process of moving weathered rock from one place to another. It can occur quickly or slowly.
  - Wind, water (both solid and liquid), and gravity are causes of erosion.
  - The rate of erosion is how quickly or slowly erosion occurs.
- The weathered rock that is moved by wind, water, or ice is called sediment.

**Patterns in Earth's Processes and Features**

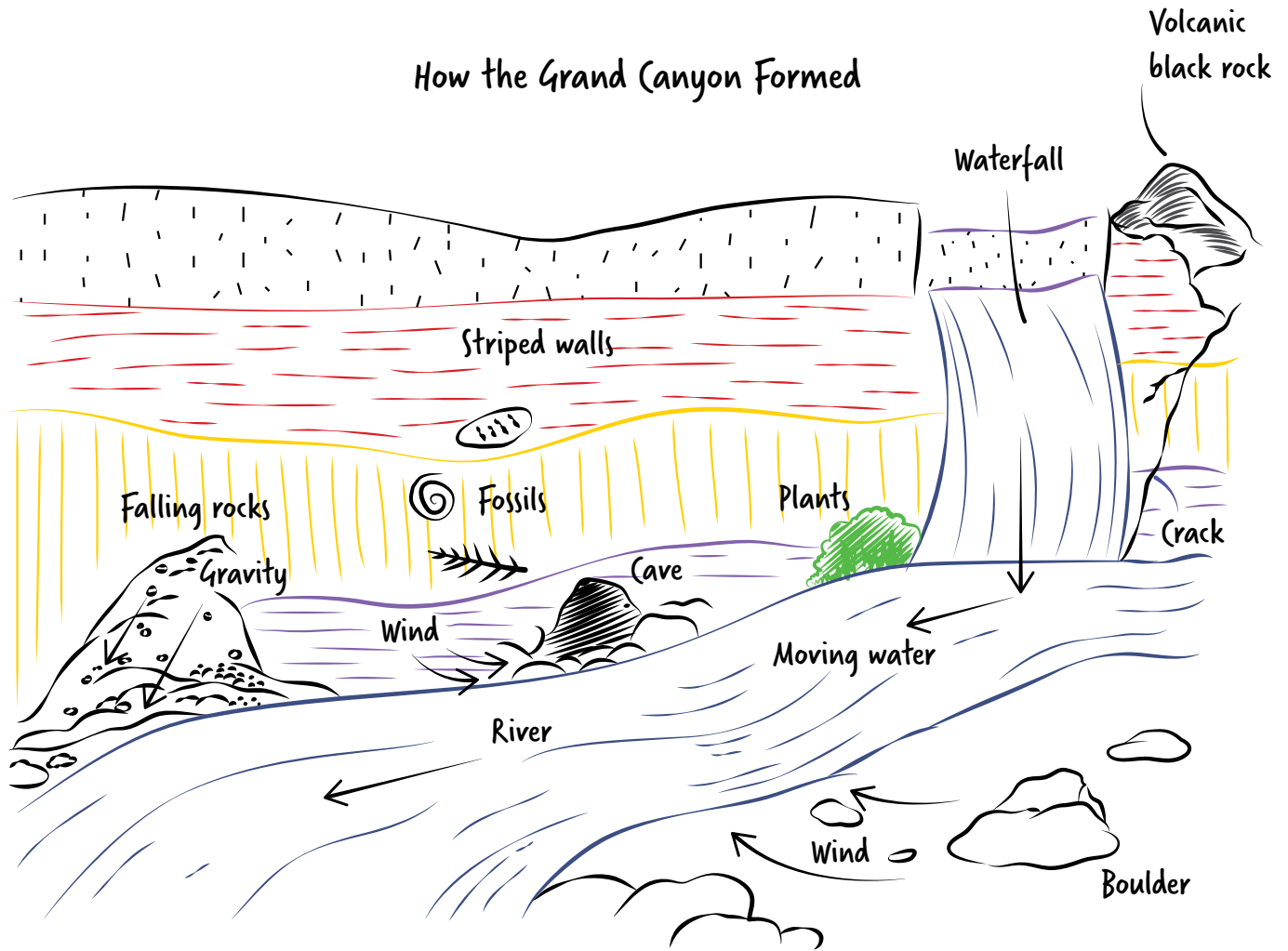
- Natural processes shape Earth's features.
- Some of Earth's processes and features occur in patterns.
  - Mountain ranges (feature) often occur along the edges and in the middle of continents.
  - Earthquakes (process) often occur in bands along the edges of continents and in the middle of oceans.
  - Volcanoes (feature) often occur in bands along the edges of continents and in the middle of oceans.

**Human Interactions with Earth's Features**

- Humans use natural resources for energy.
- Resource use impacts the environment.
- Some resources are renewable; they will not run out. Some resources are nonrenewable; they will run out.

## Anchor model

### How the Grand Canyon Formed



The rock walls of the Grand Canyon have different-colored stripes. Fossils of animals and plants that are found in the layers we see tell us about the past landscapes of the area that is now the Grand Canyon. In the past, the area was covered with ocean waters, tropical waters, and land (both swampy and dry). The Colorado River is at the bottom of the canyon and carved the canyon out over time. The water of the river continues to move over the rocks and weathers, or breaks, them into smaller pieces. The river then carries this sediment away through erosion. Sometimes wind also weathers rock into smaller pieces and carries it away. Plants grow in the rock, and their roots break the rock. In some places, the rocks fall to the ground because of gravity. At some point, there was also volcanic activity in the Grand Canyon, as shown by some of the rock layers. Also, some of the rock layers do not line up exactly and have diagonal cracks along them, which could be evidence of past earthquakes.

How did the Grand Canyon's features form? Use evidence from the anchor chart, anchor model, and your learning throughout the module to support your answer.

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