



Introducing Landforms

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AUDIO

Audio with
Highlighting



ANNOTATE



How Earth looks

- 1 There are seven huge areas of land on Earth. The areas of land are called **continents**. The continents are North America, South America, Europe, Asia, Africa, Australia and Oceania, and Antarctica. There are huge areas of water around the continents. The areas of water are called **oceans**.

What are landforms?

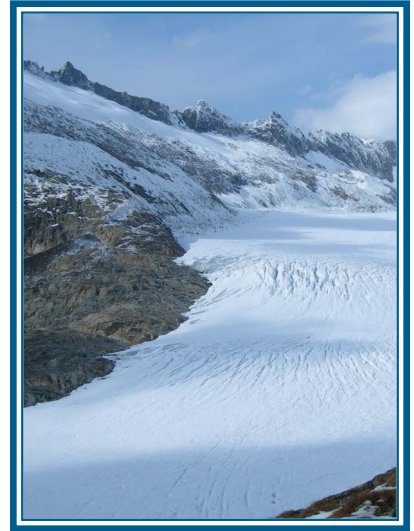
- 2 The continents are Earth's biggest **landforms**. Landforms are different shapes of land on Earth. In some places, the land is flat. In other places, the land is tall and steep. There are many kinds of landforms on Earth.



Wind and water shape rocks.



Fire shapes some mountains.



Ice creates many landforms.

What shapes the land?

- 3 Landforms are shaped by wind, fire, water, and ice. Landforms are also shaped by movements of the Earth under the ground. Some landforms are shaped by animals or people.

Small underwater animals created this island.



People created these peninsulas.



CLOSE READ

Describe Connections

Underline the words in paragraph 3 that tell what shapes the land.



Monitor Comprehension

Readers can make adjustments when their understanding breaks down.

Highlight the sentences in the text that the larger picture helps you understand.

coast the land along the sea



The water in oceans is salt water. Salt water has a lot of salt in it. This girl is playing in shallow ocean water on a beach.

Ocean meets land

- 4 A coast is a landform. It is the edge of land where it meets an ocean. Coasts can be very different. Some are rocky with **cliffs**. A cliff is a tall, steep rock. Other coasts have beaches. A beach is an area of sand or **pebbles** next to water. The water at many beaches is shallow and clear.



This rocky coast has tall cliffs.



The coast and water

- 5 Peninsulas and sea caves are landforms that are parts of some coasts. Some coasts give the ocean waters near them different shapes. **Bays, coves, and harbors** are ocean waters that are shaped by coasts. They are shown below.



A sea cave is a large hole in the side of a cliff. The cave is made by waves that hit the cliff many times.



1. A peninsula is land that has water around three sides.
2. A bay is water that has land almost all around it.
3. A cove is a small bay.
4. A harbor is an area of water near a coast where boats are protected from the wind and waves.



Describe Connections

Underline

sentences that describe how rivers and lakes are connected.

Rivers and lakes

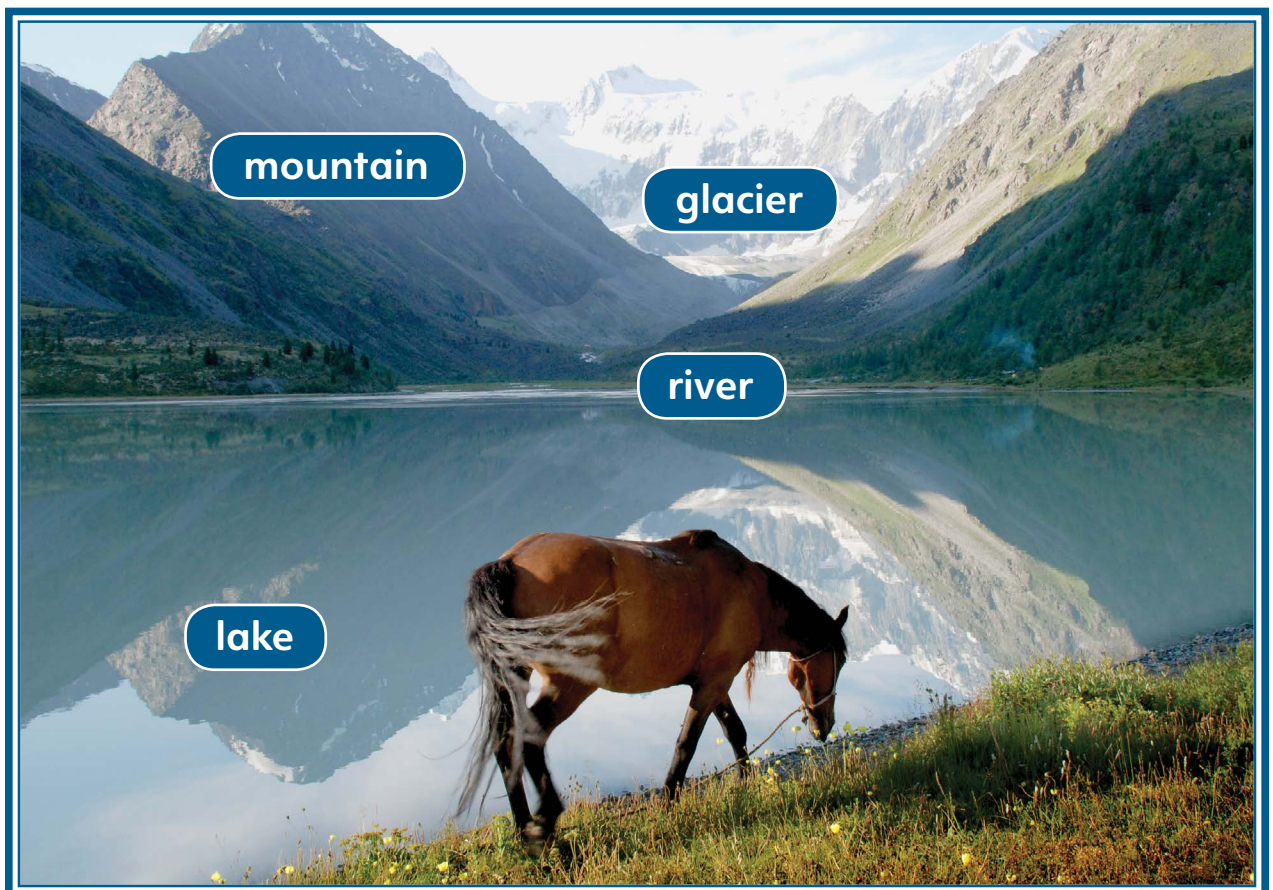
- 6 Rivers and lakes are bodies of water that are on continents. A river is a large stream of water that flows into a lake or an ocean. A lake is a body of water that has land all around it. The water in rivers and lakes is **fresh water**. Fresh water does not have very much salt in it.



Most rivers start high up on mountains and flow downhill. Some rivers crash over cliffs in waterfalls. As the rivers flow, they carry rocks and dirt with them. Over time, rivers wear away the land. Rivers can even cut through mountains! In this way, rivers help shape the land on Earth.

What makes lakes?

- 7 Lakes form in large **basins** in the Earth. A basin is like a bowl. Many lakes form from melting **glaciers**. A glacier is a slow-moving river of ice. The water in lakes comes mainly from the rivers and streams that flow into them. Some of the water comes from rain and melting snow.



When glaciers melt, the water flows down mountains in rivers. Some of the rivers empty into lakes.



Monitor Comprehension

Highlight the words that help you think about something you may have done that relates to the topic of this section.

High mountains

- 8 Have you ever climbed a mountain?
A mountain is a very high area of rocky land. It is wide at the bottom and narrow at the top. It has steep sides. Mountains that are small and not steep are called hills.



This girl has climbed a mountain. The mountain is rocky and steep. How did she get up there?



The weather is cold high on mountains.
Few plants and animals live there.

Some mountain ranges are very long. The Rocky Mountain range stretches from British Columbia, Canada, to New Mexico in the United States.

Alone or in groups?

- 9 Some mountains stand alone. A mountain that stands alone does not have other mountains around it. Most mountains are in groups. A group of mountains is called a **mountain range**. There are many mountain ranges on Earth.



Mount Fuji is a mountain in Japan. There are no other mountains around it.



CLOSE READ

Monitor Comprehension

Highlight the words that the picture helps you understand.

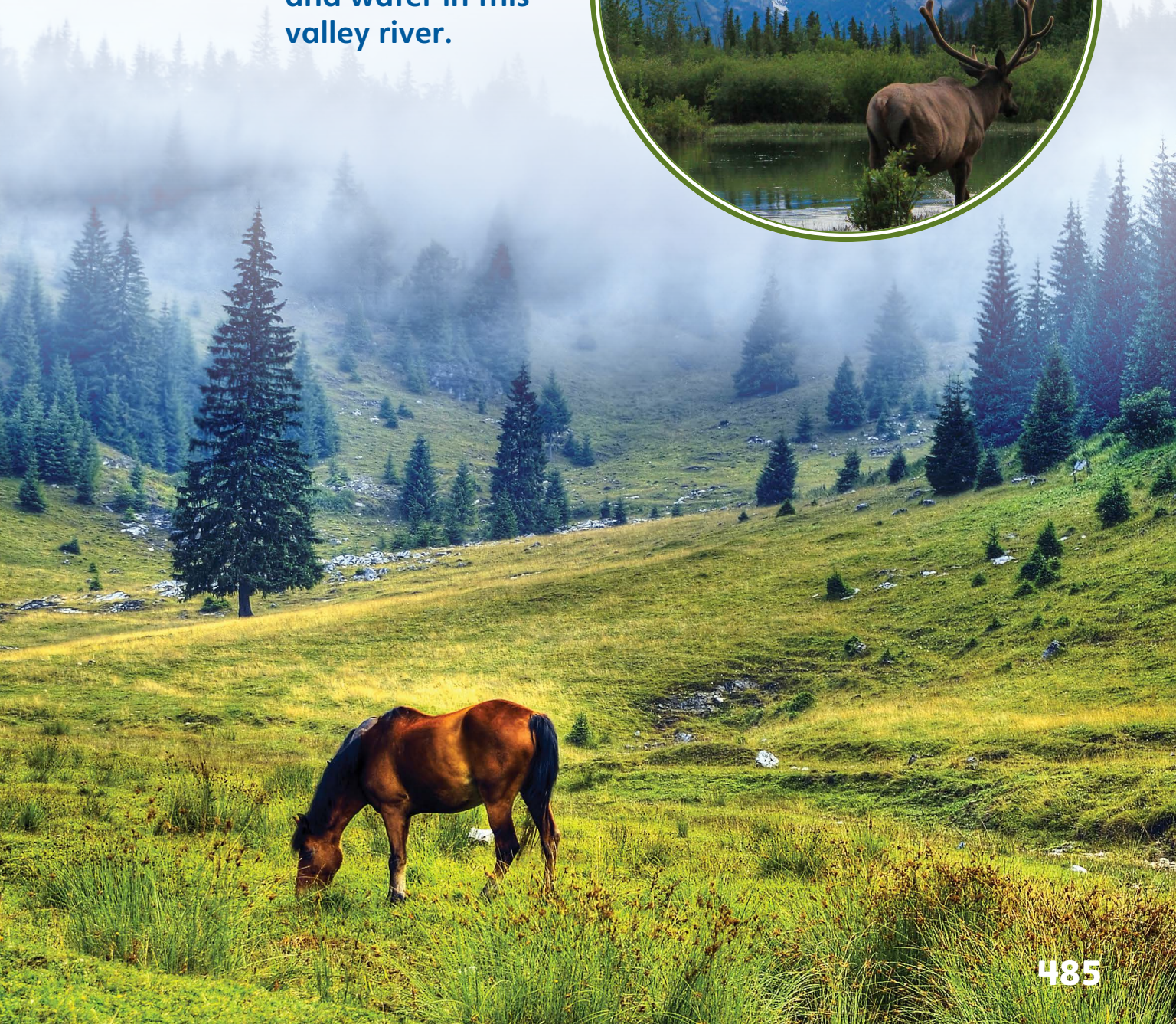
The valleys below

- 10 **Valleys** are low landforms that are between mountains. They are also below mountains. Some valleys have curved sides. Valleys with curved sides are U-shaped. Other valleys have steep sides. Valleys with steep sides are V-shaped. This picture shows a V-shaped valley.

Down in the valley

- 11 The weather is warmer in valleys than on the mountains around them. Trees, grasses, and flowers grow in valleys. There are rivers, too. Elk, rabbits, chipmunks, and hawks live in valleys. This horse has found food to eat in a valley.

This elk finds food and water in this valley river.





Describe Connections

Underline words that describe what plains are like in different places.

plains flat areas of land

Wide, flat plains

- 12 Much of the land on Earth is made up of **plains**. Plains are huge areas of nearly flat land. Some plains are covered in bushes or **forests**. Forests are areas with many trees. Other plains are covered in grasses and flowers. They are called **grasslands** or **prairies**.



These deer live on a plain with a forest. They are drinking from a river that flows through the plain.



Rabbits live in grasses on plains. This rabbit is hiding in the long grass.

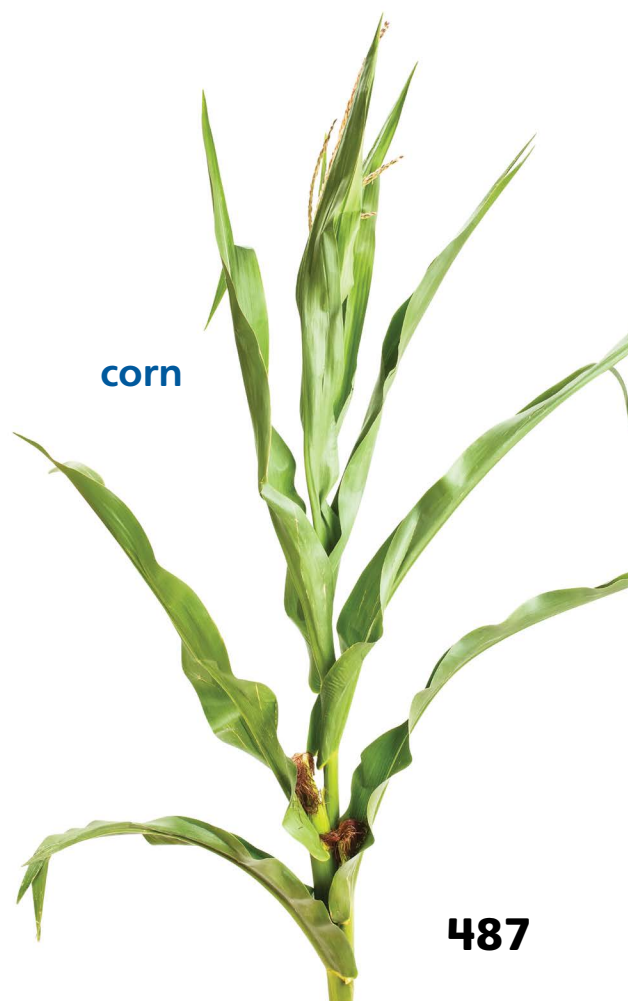




These sheep are grazing, or eating grass, on a plain. Cows and horses also graze on plains.

Good for farming

- 13 The soil on plains is good for growing **crops**. Crops are plants that people grow for food. Plains are also good places to raise farm animals. On plains, there is plenty of grass to eat for cows, horses, and sheep.





These palms are growing in a desert oasis.



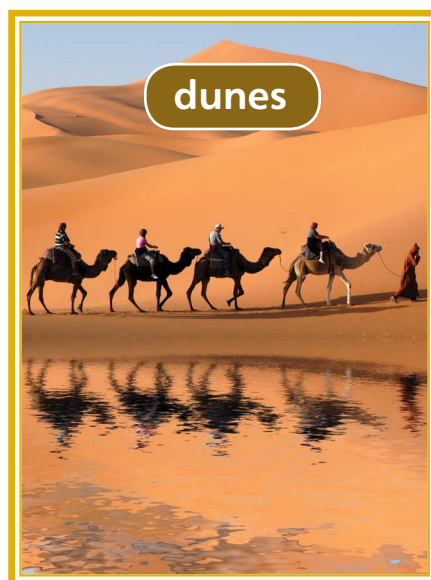
desert a dry, sandy area of land without water and trees

Desert landforms

- 14 Deserts are dry areas that get very little rain. Strong winds blow in deserts. The winds push sand into huge piles called **dunes**. Dunes are desert landforms.

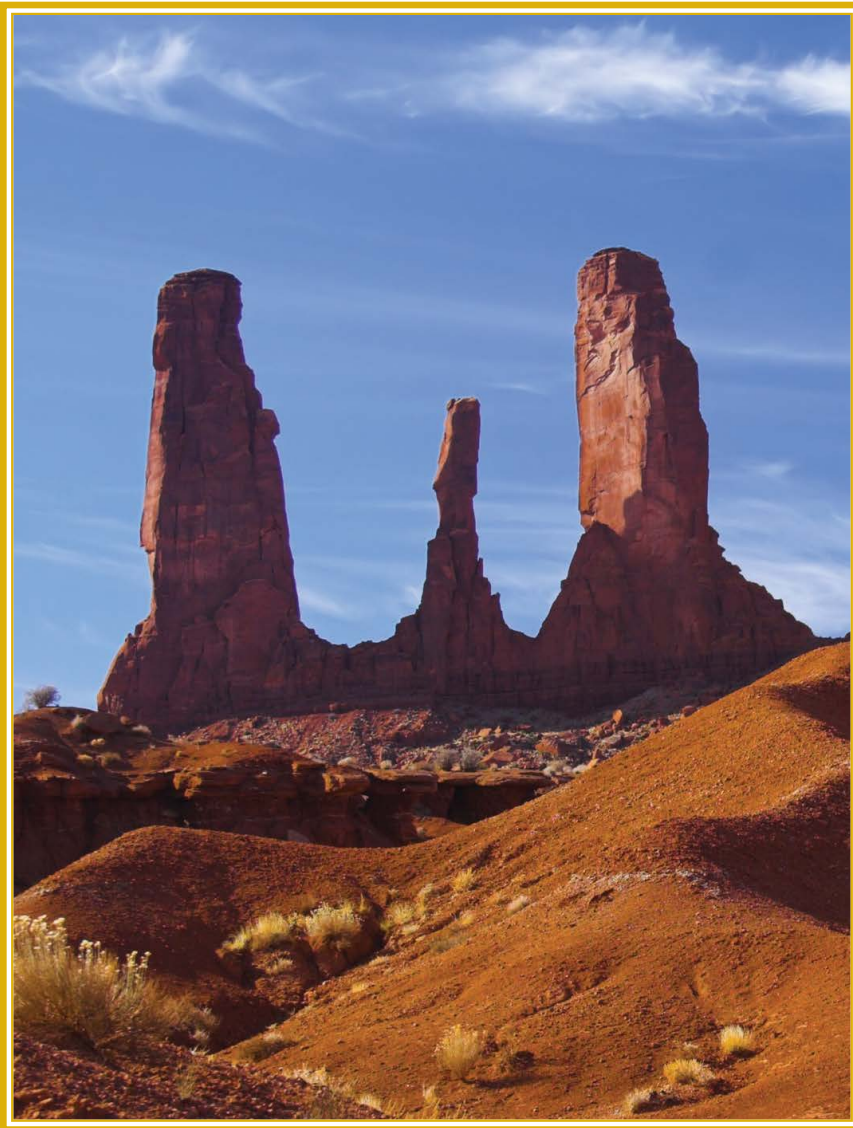
Desert oasis

- 15 In some parts of deserts, there is water under the ground. When the water comes up from the ground, it makes an **oasis**. An oasis is an area in a desert where plants grow.



Mesas and buttes

- 16 Mesas are other desert landforms. Mesas are hills and mountains with flat tops and very steep sides. Wind blows sand against the sides of mesas. Over time, the mesas become very narrow. When they become narrow, the mesas are called buttes.



These buttes are called the “Three Sisters.”

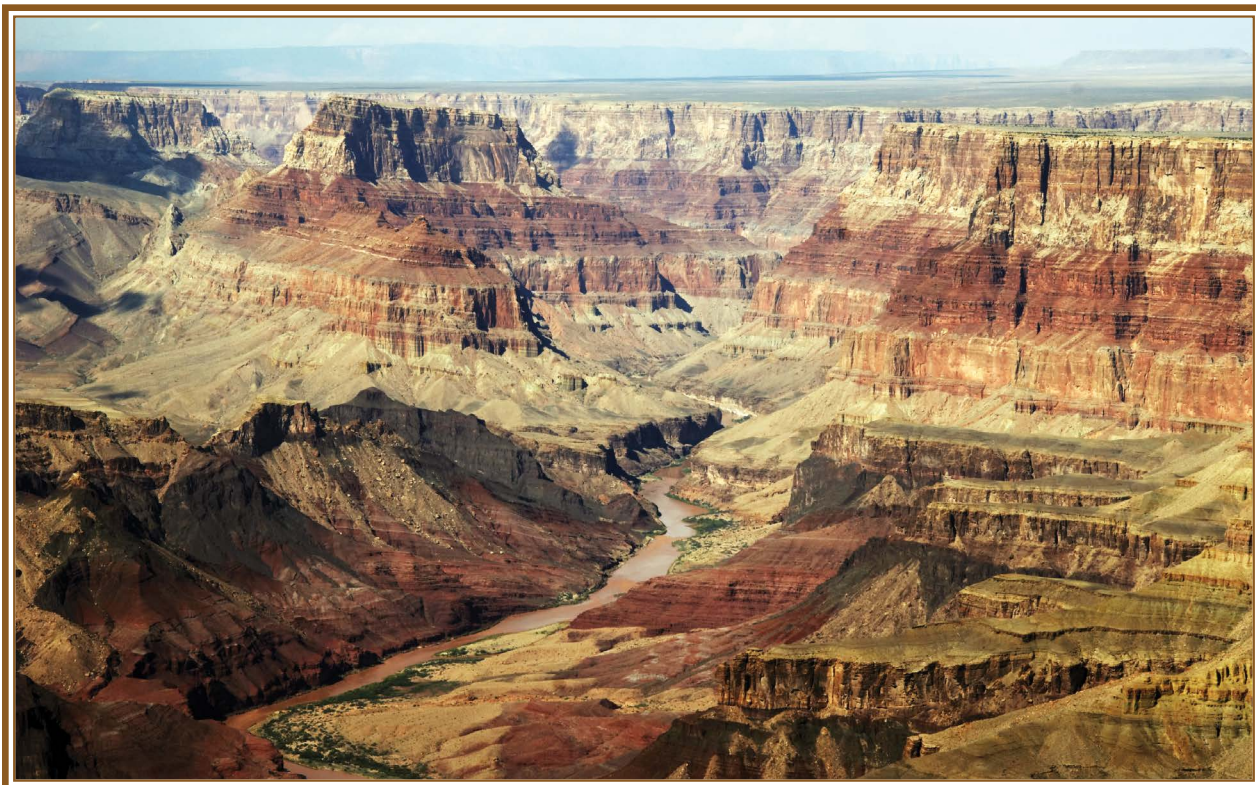
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Vocabulary in Context

Underline words that help you understand what **buttes** are.





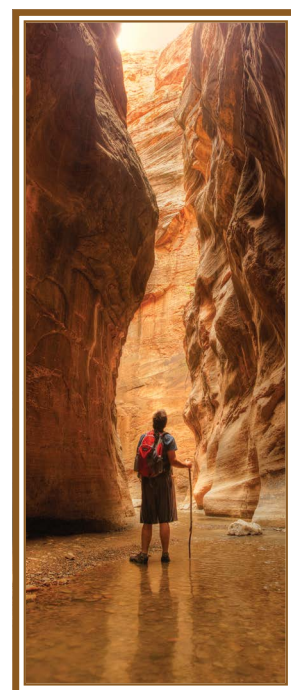
The Colorado River flows through the Grand Canyon. The Grand Canyon is a huge, wide canyon.



canyons narrow valleys with high, steep sides, often with a stream at the bottom

Deep canyons

- 17 Canyons are landforms that are also found in dry areas. Canyons are much deeper than the land around them is. Many canyons have rivers running through them. The rivers wear away the rocks in the canyons. Over time, the rivers change the shapes of the canyons.



Some canyons are very narrow.

Strange shapes

- 18 Some canyons have **hoodoos**. Hoodoos are thin rocks that rise up from the ground in dry areas. They have interesting shapes. Some hoodoos look like giant mushrooms. Other hoodoos look like weird creatures.

These hoodoos are in Goblin Valley, Utah. What are goblins?



There are more hoodoos in Bryce Canyon, Utah, than in any other place on Earth. The hoodoos were formed by wind, water, and ice. People see many shapes in the hoodoos. What do you see?

CLOSE READ



Vocabulary in Context

Find the picture that helps you understand the meaning of **creatures**. Underline that picture's caption.



This volcano is erupting. Hot lava is pouring down the sides of the volcano.



Describe Connections

Underline words that help you describe what dried lava does to volcanoes.

volcano an opening in the Earth's crust through which steam, ashes, and lava are sometimes forced out

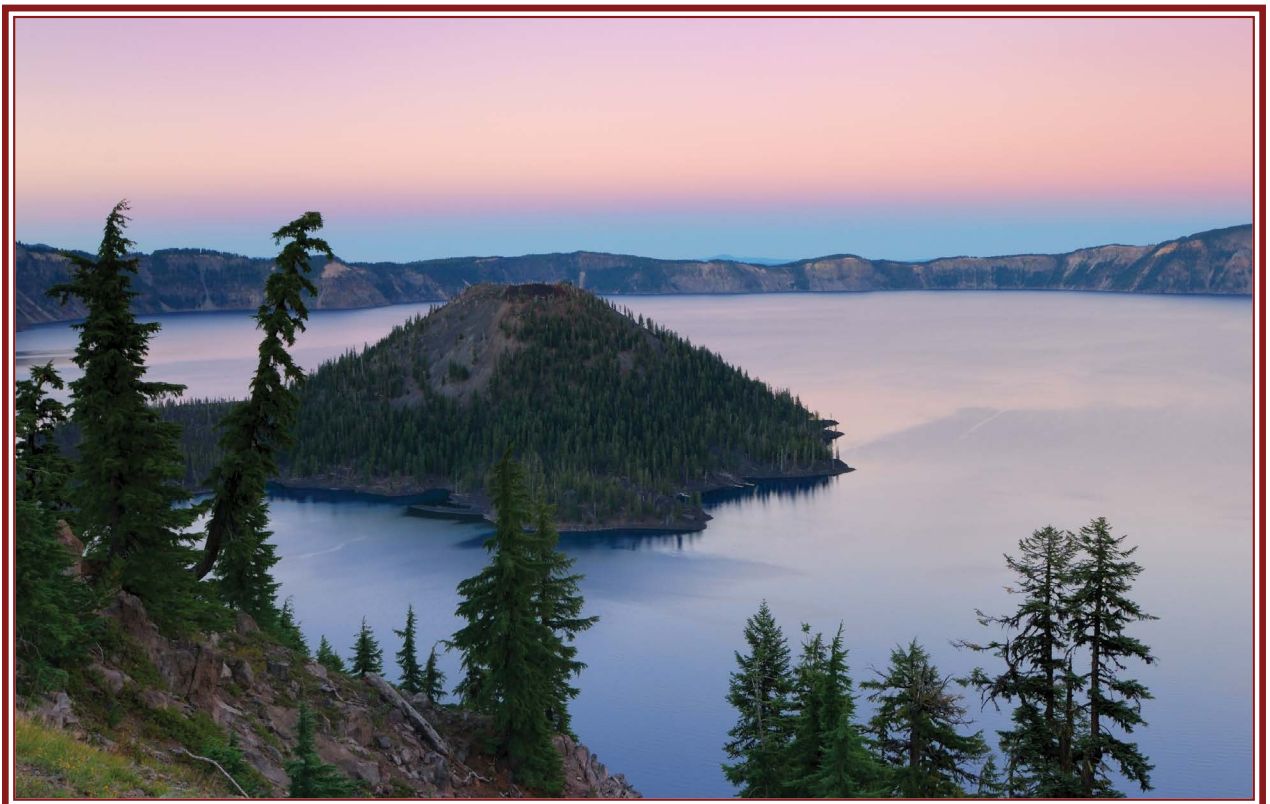
What is a volcano?

- 19 A **volcano** is an opening in the Earth's surface. Some volcanoes are **active**, and some are **dormant**, or not active. An active volcano still erupts, or explodes. Smoke, ash, and lava shoot out from its opening. Lava is hot liquid rock. After lava pours out, it dries and gets hard. Each time a volcano **erupts**, the dried **lava** builds up. The volcano gets bigger and bigger.

Mountains of lava

20 Dried lava can get so tall that it makes a mountain! Some volcanoes erupt every day, and the mountains keep growing. Volcanoes that erupt under water become mountains, too. They grow until their tops reach above the surface of water. Their tops become islands.

These mountains formed from dried lava.



Wizard Island is a volcano that formed in the water. It is found in a lake in Oregon.