

The background of the book cover is a photograph of a desert landscape. A large, natural rock arch made of reddish-brown sandstone dominates the center. Several people are visible standing on the rock formations near the arch. The foreground is filled with green and yellow desert shrubs. The sky is a clear, light blue.

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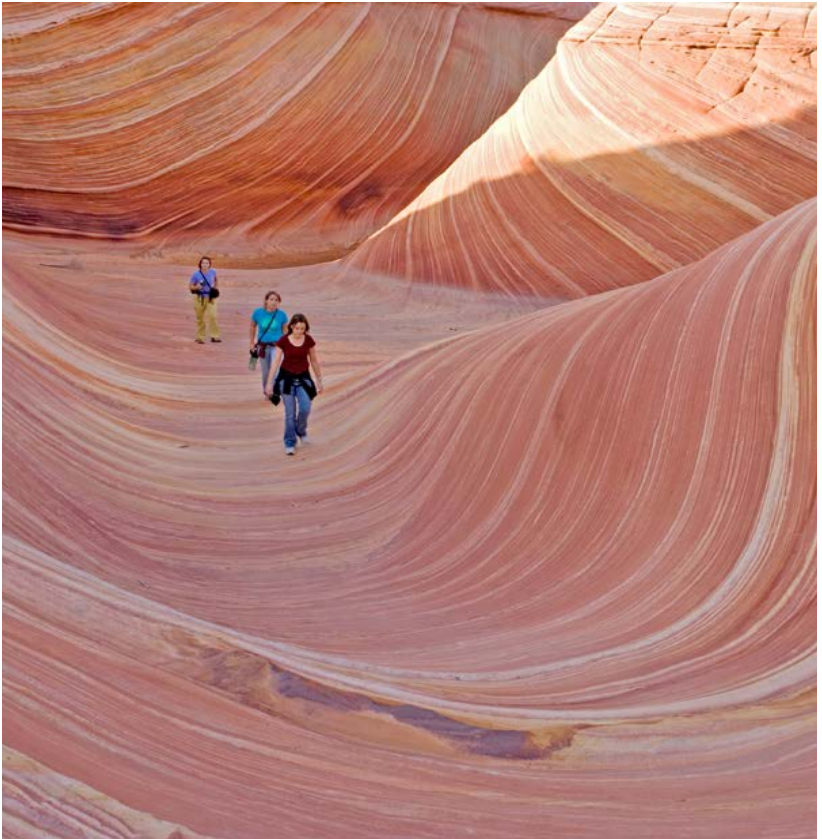
A Landforms Adventure

**Multi
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Written by Rose Brooker

www.readinga-z.com

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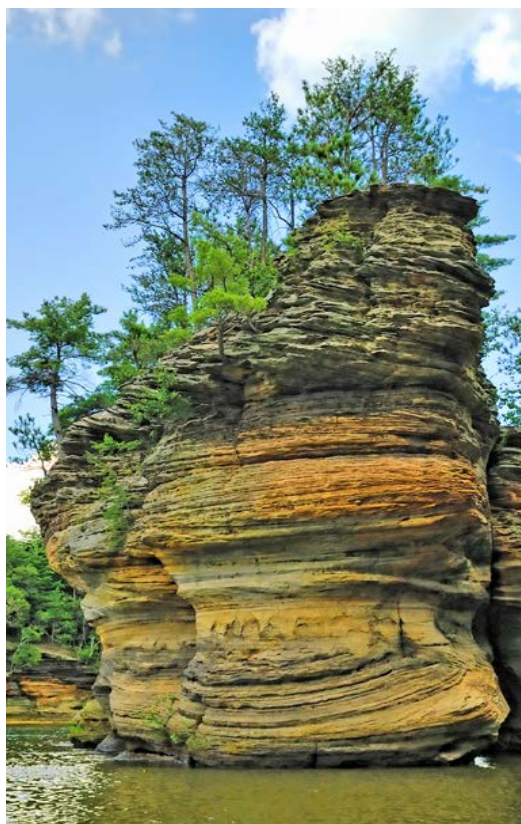
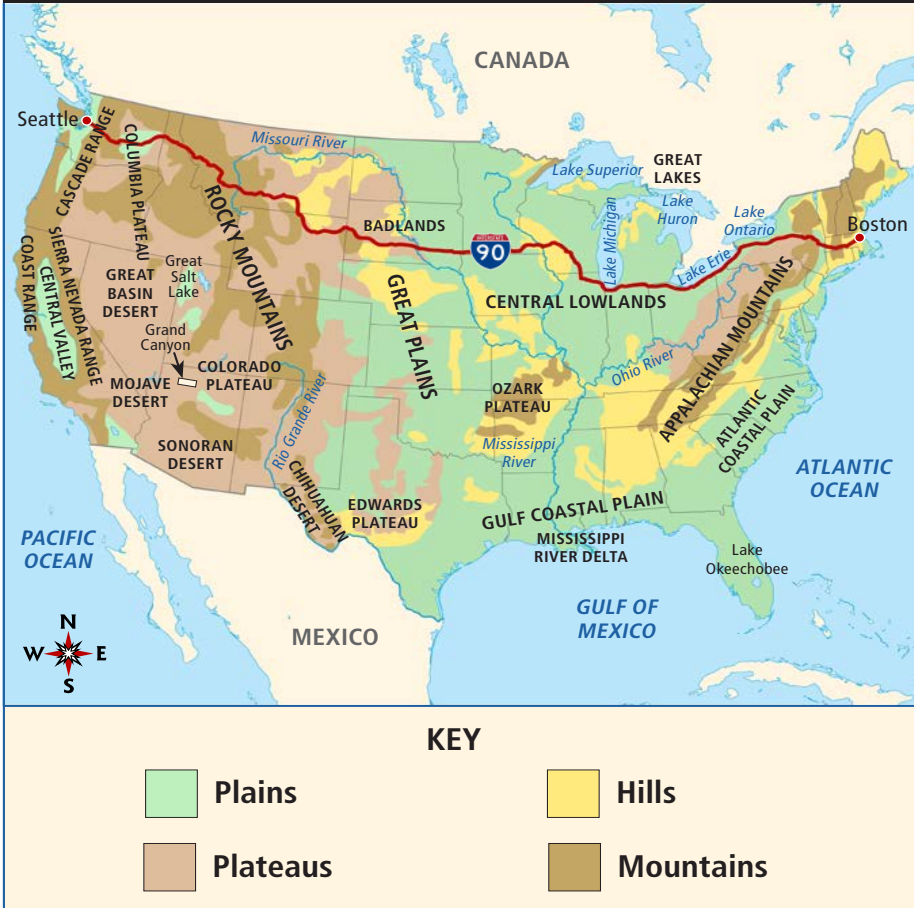


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Major U.S. Landforms



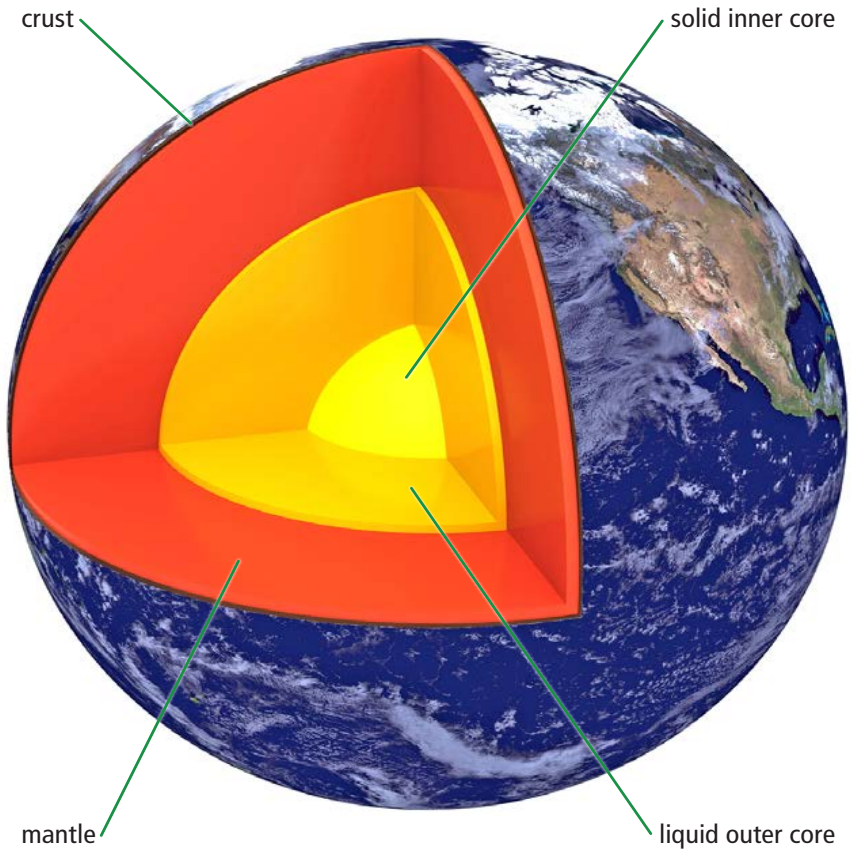
Road Trip!

I just found out that I'm going on a road trip this summer! My parents and I are going all the way from Boston to Seattle. My class is studying **landforms** in school. Mom says we're going to see some amazing landforms along the way!

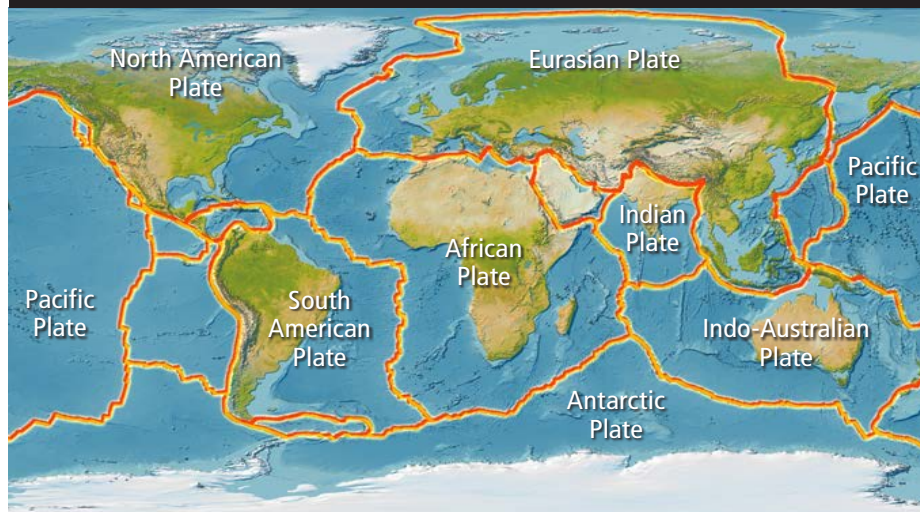
In Class

My teacher, Mr. Lopez, explained that Earth has layers like a hard-boiled egg. Both have a shell that's thin and hard. Earth's crust is broken in pieces, like a cracked eggshell. Earth's mantle is like the white of the egg. Earth's core is in the center, like the egg yolk.

Inside Earth



The “Puzzle Pieces” of Earth’s Crust



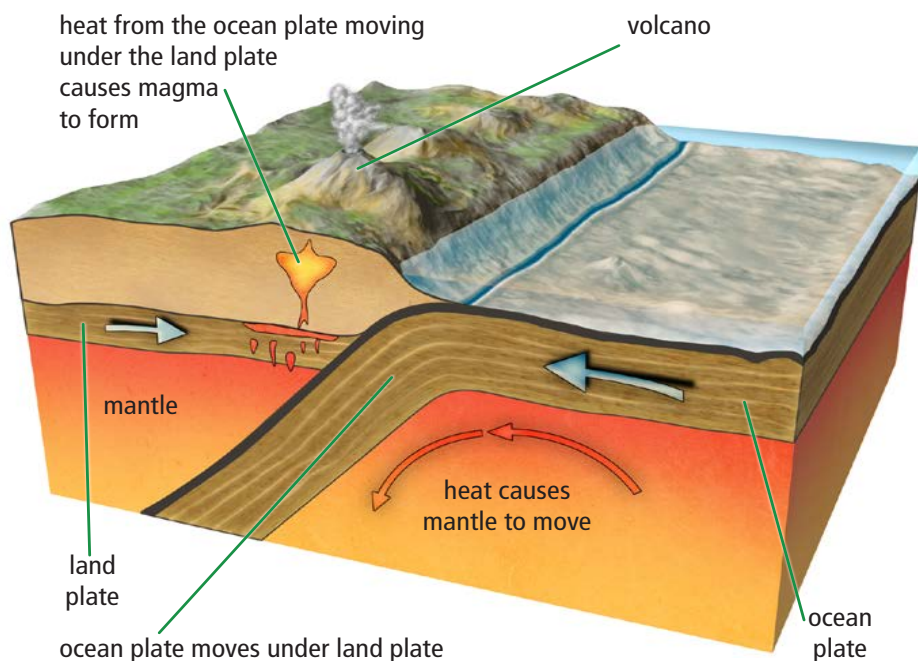
The movement of the many separate pieces of Earth’s crust is one of the forces that create landforms.

We also learned that Earth’s crust is made up of huge pieces of rock called **tectonic plates**. The plates sit above soft, almost-melted rock and slowly slide around because of heat deep inside Earth. These movements are the most important underground forces that create landforms.

Try This!

Look at a United States map that shows all the interstate highways. Notice that the main east-west routes have even numbers (I-90, I-80, I-70, and so on), and the main north-south routes have odd numbers (I-5, I-15, I-25, and so on). Choose an interstate other than I-90 and research its main landforms. Then write a story about a trip along that interstate.

How Coastal Volcanoes Form



Mr. Lopez also explained that Earth's surface is always changing. He said that some changes take place slowly, while others happen really fast. Both types can change existing landforms and create new ones.

Sometimes small areas high in the mantle get hot enough to melt and become magma. This melted rock can push up and erupt at the surface as lava. As lava cools and hardens, it can build up and form a volcano, which is a type of mountain.



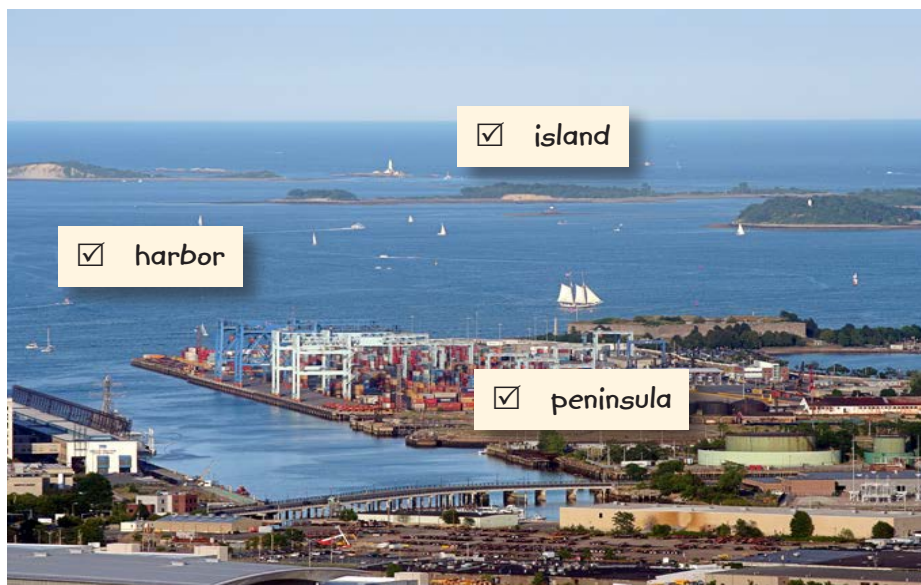
Erosion from water and wind carved the Grand Canyon.



Weathering formed this rock arch.

As tectonic plates and magma change Earth under the ground, other things are happening on the surface. Weathering breaks down rock and shapes it. **Erosion** carries away the pieces that have broken off, called *sediments*, and later **deposits** them. Wind, water, and ice are the main tools of weathering and erosion.

Mr. Lopez handed out a list of different landforms. I'm going to take the list on my trip and try to see them all!



My mom and I saw these islands in Boston Harbor.

Getting Ready to Leave

Mr. Lopez's list includes some landforms here in Boston. Mom and I start at Castle Island, in Boston Harbor. It's not really an island since it's not surrounded by water on all sides. It's connected to the mainland on one side, which makes it a **peninsula**. You can see a bunch of islands from there, though.

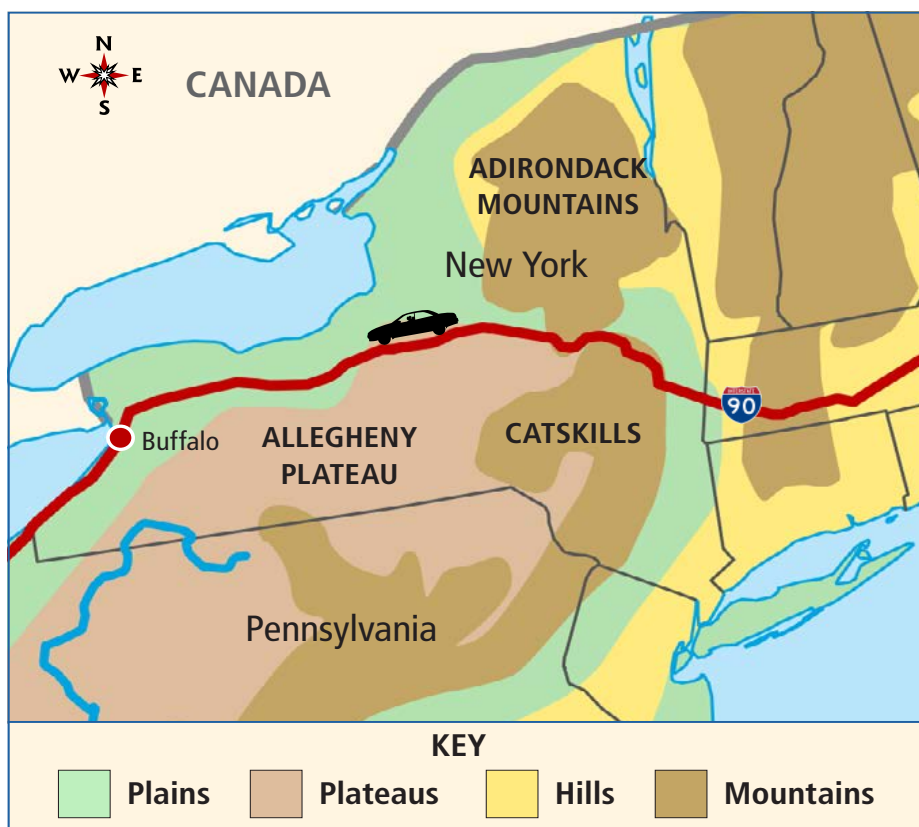
Boston Harbor is part of Massachusetts Bay, an area of water connected to the Atlantic Ocean. Boston is on the east coast of the North American continent, an incredibly huge piece of land.

On the Road

Once we start driving west, the hills and valleys grow larger, and we seem to be climbing higher. Dad says we'll soon be in some mountains, but I don't see any tall mountains. Dad explains that because the mountains are very old, erosion has worn them down to big hills.



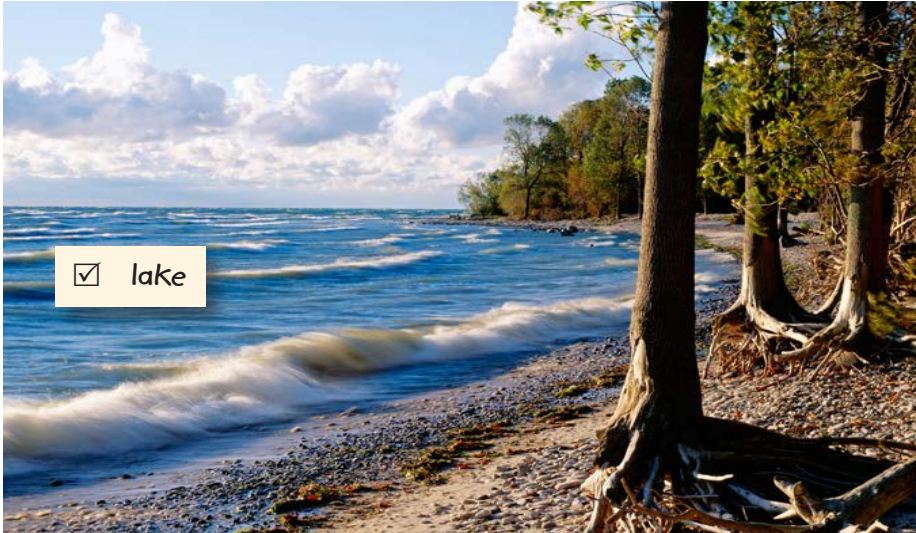
The Berkshires look more like big hills than what I think of as mountains.



Across New York State, the land is low and hilly in some places and higher in other places. Dad says the higher places are part of a huge, high area of land called a **plateau** (pla-TOH). The high land built up over time from sediments deposited as a result of erosion.

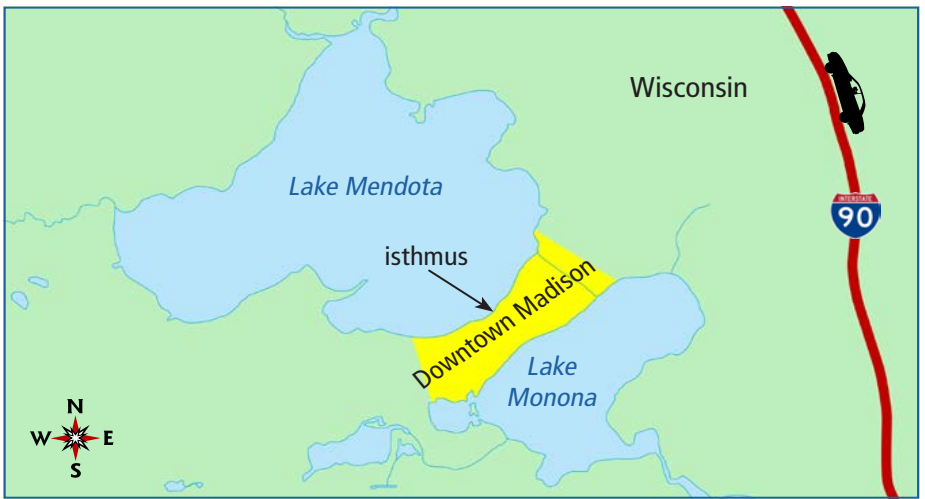
Do You Know?

The largest plateau in North America is the Colorado Plateau, which is in parts of Colorado, Utah, Arizona, and New Mexico.



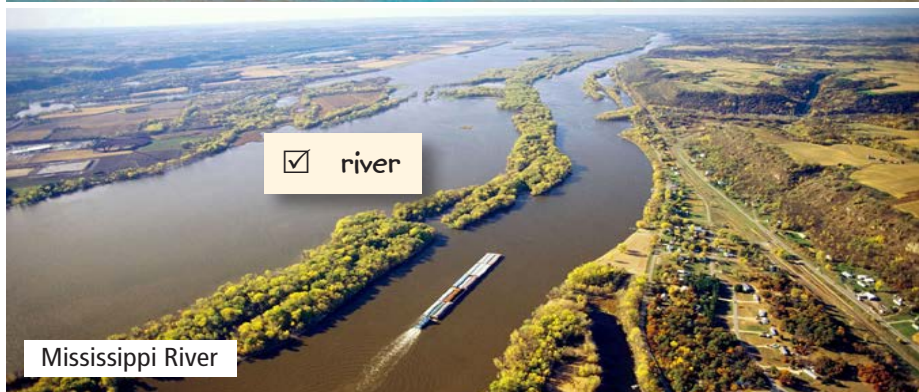
Lake Erie is much too wide to see across to the other side.

After stopping overnight, we continue west. The land is much lower and flatter as we drive along the south shore of Lake Erie. Lake Erie is one of the Great Lakes. A glacier carved the Great Lakes about fourteen thousand years ago. They're Earth's largest group of freshwater lakes. Mom says we'll see another one of the Great Lakes—Lake Michigan—when we get near Chicago.



Wisconsin's state capital building is on Madison's isthmus.

We stay overnight in Chicago and then get back on the road. After entering Wisconsin, we drive past the capital city of Madison. Downtown Madison sits on an **isthmus** (IS-muhs), a narrow strip of land between two bodies of water. I grin and check it off my list.



After driving for a while, we stop to see the Wisconsin Dells. The Dells is a **gorge**—a steep, narrow valley—that was carved by the Wisconsin River. Along its sides are canyons, which are similar to gorges but not as steep or narrow.

Now it won't be long until we see the Mississippi River, one of the longest rivers in the world. This part of the Mississippi was mainly carved by glaciers.

We just crossed the Mississippi! Soon we'll officially be in the Great Plains. I learned in school that a plain is a large, flat area without many trees. The Great Plains formed when two tectonic plates smashed into each other and joined together. Some parts of the Great Plains are flat, and others have hills.



The sweeping grasslands of the Great Plains were once home to huge herds of bison and horses.



Badlands National Park's rock formations were created by deposited sediments along with wind and water erosion. The park has many fossils such as this skull (inset) of a mammal that lived 38 to 16 million years ago.

We stop overnight in western Minnesota and drive into South Dakota the next morning. It's pretty flat until we get near Badlands National Park. We hike in the park and see some amazing rock formations.

After an overnight stay, we drive through a corner of Wyoming and pass the Bighorn Mountains on our left. Some of the mountains have snow, but Mom says even bigger mountains are still to come.

After we cross into Montana and pass Billings, Dad says, “Get ready to be impressed!” Soon afterward, I let out a whoop as I see a row of high, snowy peaks—the Rocky Mountains. The Rockies are one of the main mountain ranges in the West. They formed when two small tectonic plates beneath the Pacific Ocean slid under the North American Plate.



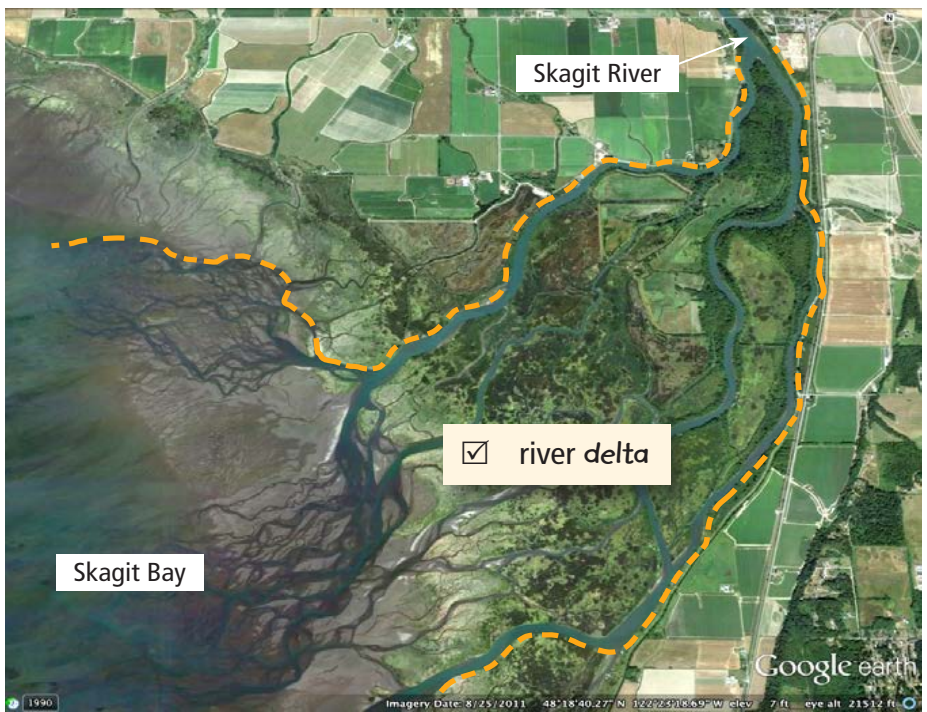
Snow caps the peaks of a Rocky Mountain range in Montana.



Mount Rainier is topped with glaciers, large fields of ice and packed snow that remain all year long.

After driving across Montana, Idaho, and Washington, I'm excited to see water again. But I'm more excited to see Mount Rainier (ray-NEER), a huge volcano.

We drive into Seattle, which is next to Puget Sound, an "arm" or inlet of the Pacific Ocean. We've reached the end of Interstate 90, and our search for landforms is nearly over.



Over time, sediments built up and caused the river to split into many smaller branches in the area between the dotted lines.

One Landform to Go!

For the last landform on my list, we travel one hour north to the Skagit (SKA-jit) River **delta**. This landform was created when sediments built up where the river flows into Skagit Bay.

I've seen some amazing landforms on this trip, and I've learned so much about how Earth's surface changes. I can't wait to tell Mr. Lopez about my summer vacation!

Glossary

| | |
|--------------------------------------|--|
| delta (<i>n.</i>) | an area of land shaped like a triangle formed by sediment at the mouth of a river (p. 19) |
| deposits (<i>v.</i>) | sets down an amount of a substance, such as sediment, on a surface or area (p. 8) |
| erosion (<i>n.</i>) | the natural removal of rock or soil by water, wind, or ice (p. 8) |
| gorge (<i>n.</i>) | a long, deep valley surrounded by higher land (p. 14) |
| isthmus (<i>n.</i>) | a narrow strip of land connecting two larger landmasses (p. 13) |
| landforms (<i>n.</i>) | natural formations on Earth's surface, such as valleys, plateaus, mountains, plains, or hills (p. 4) |
| peninsula (<i>n.</i>) | a long piece of land almost completely surrounded by water (p. 9) |
| plateau (<i>n.</i>) | a large raised area of flat land (p. 11) |
| tectonic plates (<i>n.</i>) | the large sheets of rock that make up Earth's crust (p. 6) |

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Front cover: Hikers rest beneath Skyline Arch in Arches National Park, Utah.

Title page: Hikers walk across the Wave, a rolling area of banded sandstone rock in Vermilion Cliffs National Monument, Arizona.

Page 3: (left) A sandstone formation rises above the river in the Wisconsin Dells. (top right) The Chocolate Hills in the Philippines are thousands of hills worn down by erosion. (bottom right) Wind and sand erosion bored a hole in red sandstone rock.

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