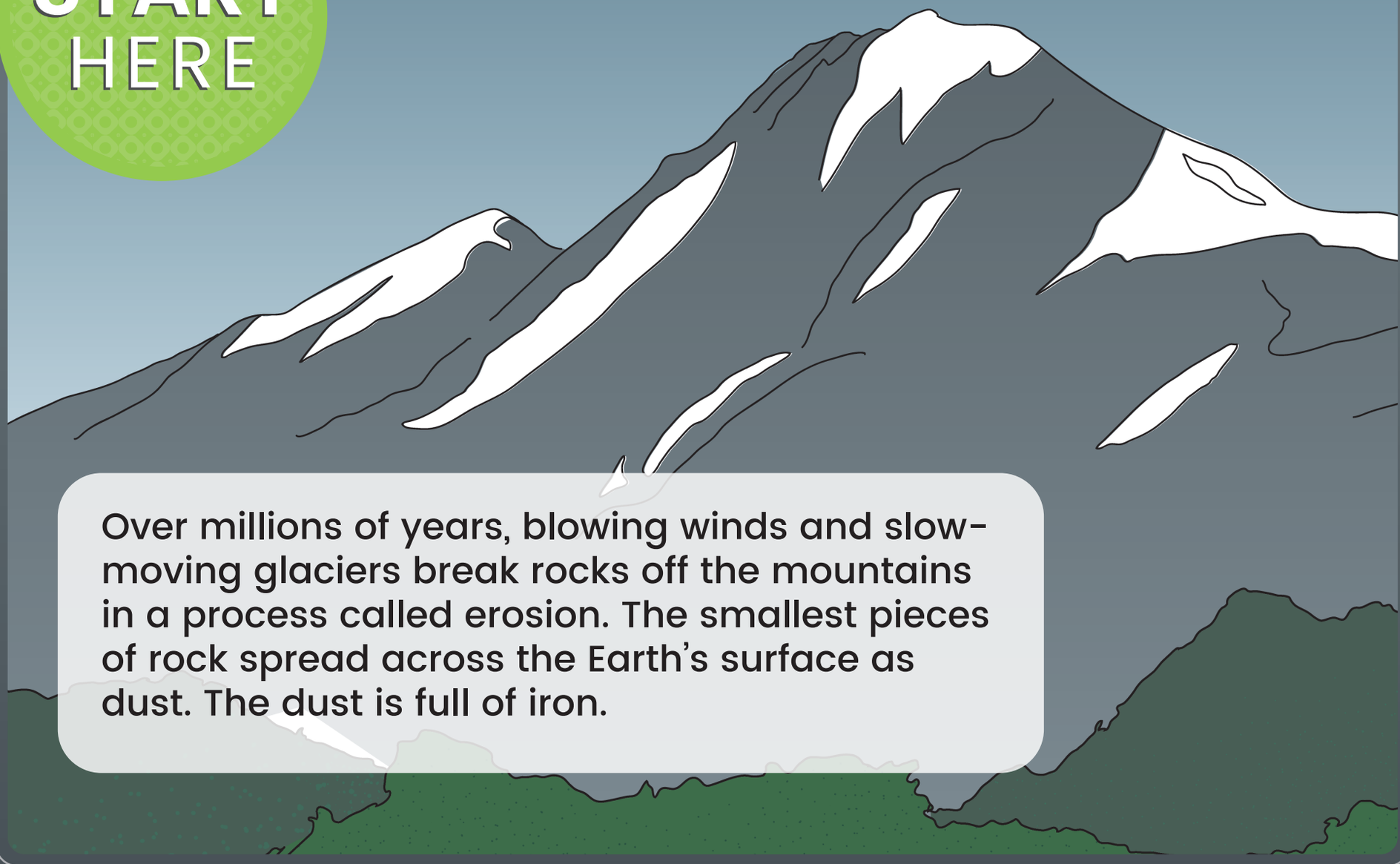
MOUNTAINS

START HERE



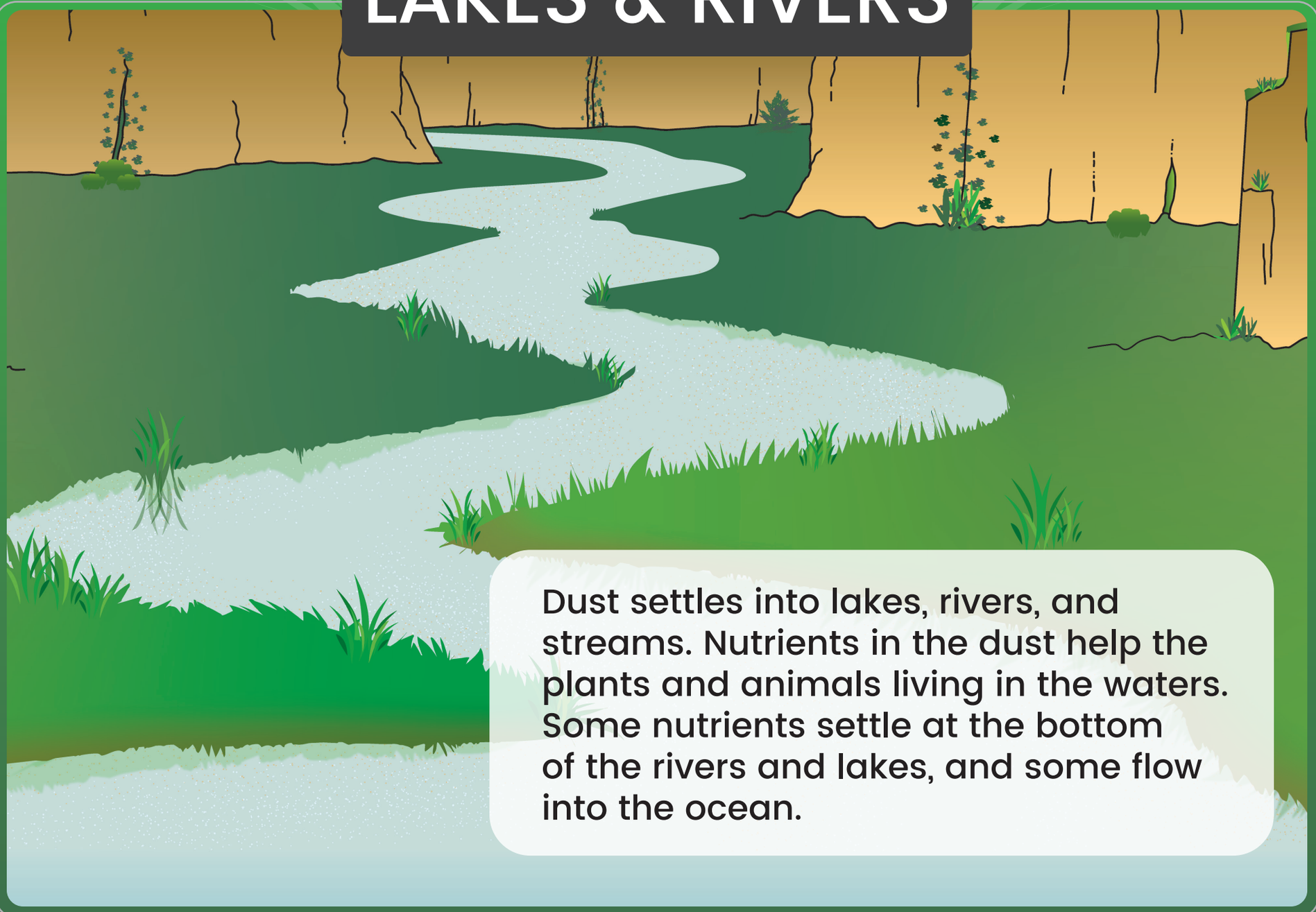
Over millions of years, blowing winds and slow-moving glaciers break rocks off the mountains in a process called erosion. The smallest pieces of rock spread across the Earth's surface as dust. The dust is full of iron.

LOESS PLATEAU

What is loess? **(pronounced “luss”)** Loess is loose sediment made of tiny pieces of rock and dust that have been carried far from their source by winds. There are large deposits of loess in central China and the American midwest.

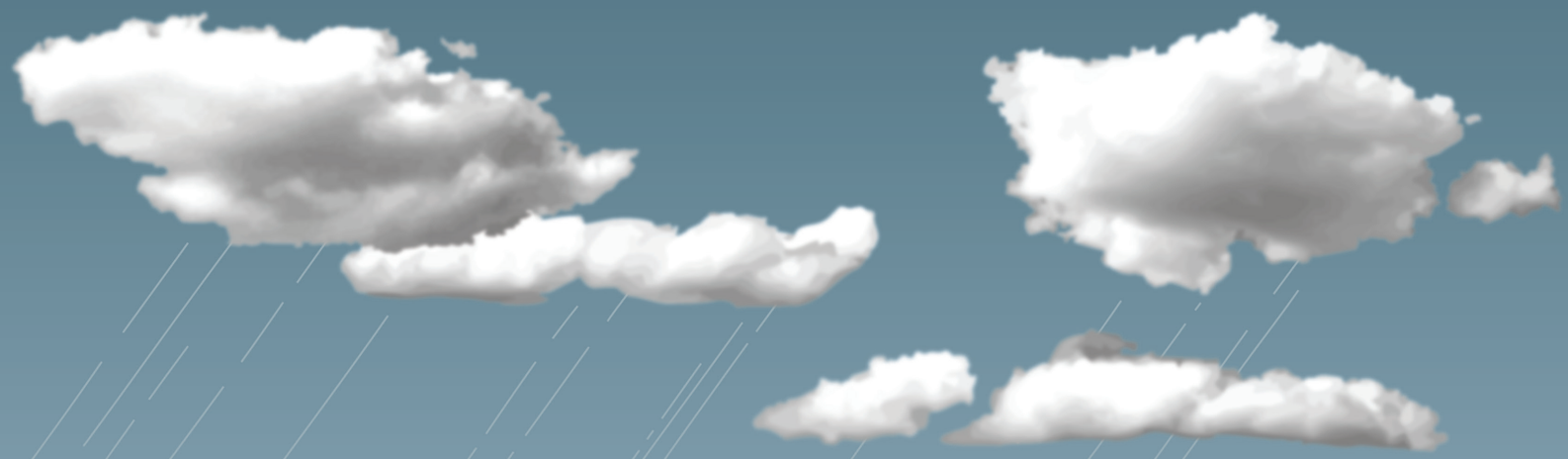
Blowing winds carry dust away from the mountains. Some of the dust settles on the ground, forming sediment called loess deposits. A large area of loess can form a loess plateau. Over time, dust is carried away from the loess plateau by the wind or is washed away in a river.

LAKES & RIVERS



Dust settles into lakes, rivers, and streams. Nutrients in the dust help the plants and animals living in the waters. Some nutrients settle at the bottom of the rivers and lakes, and some flow into the ocean.

ATMOSPHERE

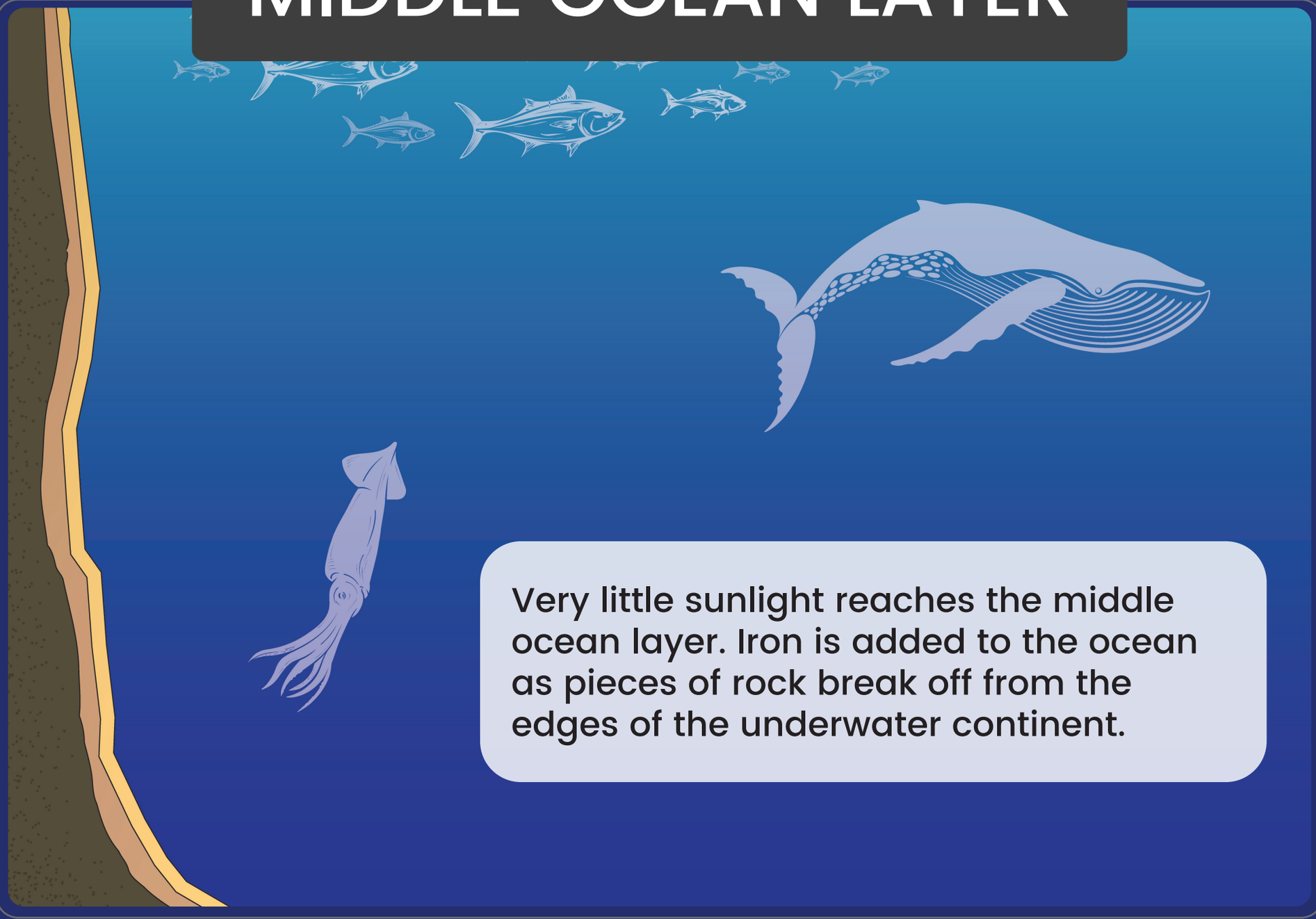


Dust blowing in the wind is carried far from its source, eventually settling on land or water. Tiny dust particles in the atmosphere can help form clouds and eventually join raindrops or snowflakes as they fall to the Earth's surface.

UPPER OCEAN LAYER

Near the surface of the ocean, sunlight shines through the water. Living things that use energy from the Sun, including phytoplankton, live here. When iron-rich dust settles into the ocean, it can cause a “bloom” of phytoplankton (as seen in the picture to the right).

MIDDLE OCEAN LAYER



Very little sunlight reaches the middle ocean layer. Iron is added to the ocean as pieces of rock break off from the edges of the underwater continent.

DEEP OCEAN LAYER

The deep ocean is completely dark. Nutrients settle on the ocean floor, where they can remain for millions of years. Hydrothermal vents spew out gases and particles, adding iron to the water.