



▲ exposed layers of sedimentary rock

When rock particles are dropped by water, other sediments can cover the particles. This often happens in oceans and lakes. After a long time, they can be buried under hundreds or even thousands of feet of sediment. That much sediment is very heavy, which puts high amounts of pressure on the lowest layers. There can be so much pressure that the particles get squeezed together and form new rocks. Rocks made in this way are called sedimentary rocks.

▼ The Grand Canyon was carved through many layers of sedimentary rocks.



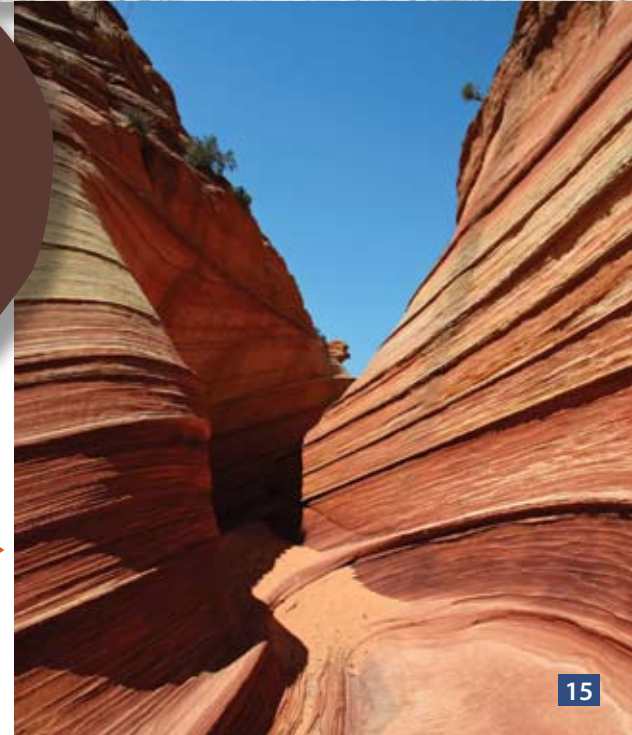
Skeleton Rocks

There is another kind of sedimentary rock, but it is not made of rock particles. It is made of the hard parts of animals that lived in the ocean. These parts include shells and skeletons. Some of the animals are big, like clams, fish, and lobsters. Some are so tiny that they can only be seen with a microscope. When the animals die, their bodies drop to the bottom of the ocean. There, they can pile up in the same way that rock particles do. Over thousands or millions of years, pressure squeezes them together into new rock called limestone.

Sedimentary Rocks

Made Of	Name
pebbles and cobbles	conglomerate
sand	sandstone
silt and clay	shale

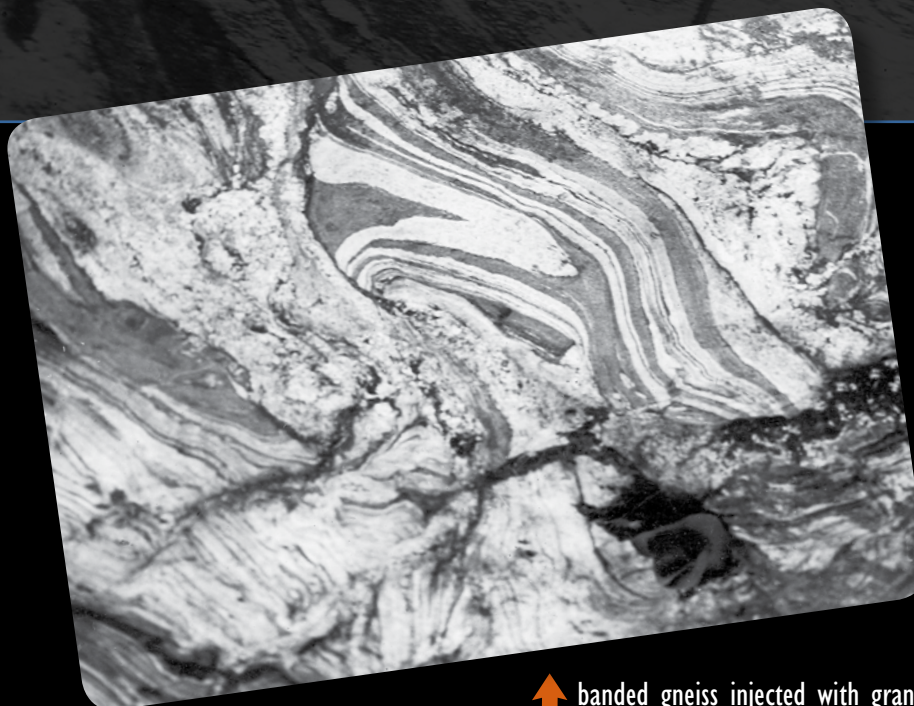
The layers of sedimentary material are easily seen in this small canyon. The canyon was created by wind and water erosion. ➡



Metamorphic Rocks

Deep underground, high pressure or heat or both can force rocks such as sandstone or granite to change. They might liquefy and turn into magma, or they might melt just a little bit, cool down, and then become solid again. Because they were not melted completely, they don't become magma. They are now called metamorphic, which means something that has changed. (In this case, a rock.) Some examples of metamorphic rocks are schist, gneiss, and quartzite.

↓ quartzite



↑ banded gneiss injected with granite



↑ specimen of folds in a schist



Write On!

Long ago, children in schools didn't use paper every day. They still needed something to write on, though. Students sometimes carried their own small chalkboards. These chalkboards were actually made of **slate**—a type of metamorphic rock.

Slate begins its life as shale. Heat and pressure change it. The rock becomes metamorphic, turning it into slate. Slate makes good writing material because it is smooth, flat, and dark in color—perfect for chalk to write on. (And chalk is a kind of rock, too!)

