The Wave is a sedimentary rock formation located near the Arizona–Utah border in the United States of America. You can clearly see the layers in the sandstone that have been compressed together and eroded over time.

# SEDIMENTARY ROCK

***Conglomerate** is sedimentary rock made up of rounded pebbles of different sizes that have been cemented together. The sediments were deposited by fast-flowing rivers that could transport larger pebbles.*

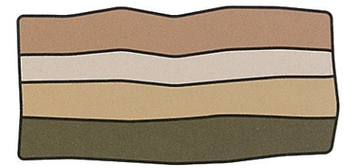
**Sedimentary rock** is formed when **sediments** are deposited in layers, such as on a riverbed or the ocean floor. This can take thousands or millions of years. The weight of the overlying rock can cause the formation of hard rock.

Sedimentary rock forms when particles of eroded rocks are compressed over a long time. The name refers to the particles, or sediments, that make up the rock.

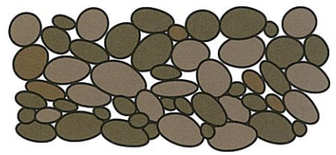
The sediments that make up sedimentary rock form when weather erodes the landscape. Water and wind carry these sediments before dropping (depositing) them in a layer such as a riverbed or the seafloor. A layer of sediments builds up as more particles are deposited over thousands or millions of years. If the conditions are right, the layer can become buried and then pressed together by the weight of rock above it, and cemented by water to form hard rock.

Sedimentary rocks can also form when water evaporates and leaves behind a solid substance, such as salt to form rock salt, or calcium carbonate to form limestone.

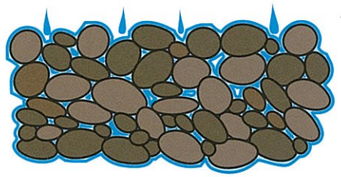




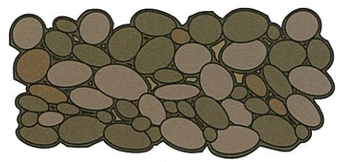
Sediments are deposited in layers.



The grains of sediment in lower layers begin to squash together.



Chemicals that are dissolved in the water can soak into the sediments.



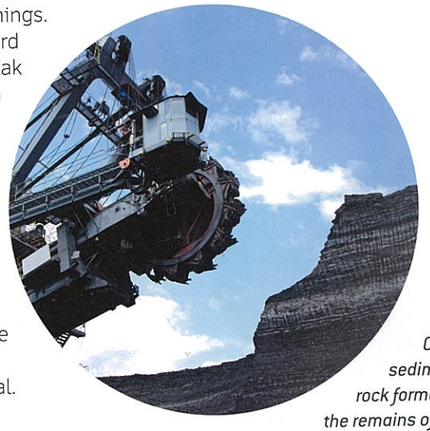
The chemicals help cement the grains together once the water has evaporated.

***Fossils,** the imprints of plants and animals, can sometimes be found in sedimentary rocks. We have learnt about ancient life through the discovery of fossils. The layer they are found in can help reveal how old the fossil might be.*

## Biological rocks

Sedimentary rocks are sometimes formed from the remains of plants, animals and other living things. For example, shells and hard parts of sea organisms break down and are deposited in layers on the ocean floor. Eventually they cement together under pressure to form limestone.

Coal is a sedimentary rock formed from dead plants that were buried before they completely decayed. Pressure from the layers above can change the plant material into coal.



*Coal is a sedimentary rock formed from the remains of plants under pressure.*

### LOOK IT UP

**conglomerate** sedimentary rock made up of rounded pebbles of different sizes that have been cemented together

**fossil** the imprints of an animal, plant, bacteria or other living organism preserved in rock

**sediment** particles of rock eroded from the landscape, and then transported and deposited by water and wind

**sedimentary rock** rock formed when layers of particles (sediments) are pressed together by the weight of the overlying rock, or when water evaporates to leave behind a solid substance

### CHECK IT OUT

1 Look at the picture of The Wave on the opposite page.
   - a What type of sedimentary rock is The Wave?
   - b Why did it form in layers?
   - c How did it eventually become a sedimentary rock?

2 What is a fossil?

3 How do you think fossils become preserved in sedimentary rocks?

4 Give two examples of sedimentary rocks that have formed from living things.