

Name: _____

Sedimentary Rocks



Sedimentary rock is formed by pressure when all the bits and pieces of rock, gravel, clay, soil and organic matter (dead plants/animals) pile up and harden into rock over many, many years. Weathering (wind, ice, water, water flow and temperature changes) along with erosion processes break down the rocks into smaller pieces and minerals. Wind, rain and traveling water from rivers, lakes and streams carry the broken rock pieces to different places. These broken pieces eventually come to rest and become known as 'sediments'. These sediments start to build up over time and gather and compact on the earth's surface. At first, they are soft and loose. Then the pressure of the weight compacts the bits and pieces and eventually cements them to harden. The breakdown of these dead plants over millions of years to form sedimentary rocks is also how coal is formed. The sedimentary rock covers the igneous and metamorphic rock beneath in deeper layers of the earth. Earth processes like weathering break down rocks and carry them away until they settle or get deposited in valleys, bottom of streams and lakes and elsewhere on land. This sediment builds up over time and compacts into solid rock. Weathering like this is constant. Sedimentary rocks were formed long, long ago and since then, they have been compacted and crushed and then get transformed into metamorphic rock as part of the ongoing rock cycle. Many towering cliffs in the world are made of sedimentary rocks. Examples of sedimentary rocks include limestone, shale and siltstone.

Questions:

1. How do you think sedimentary rocks got their name '*sedimentary*'?
2. What makes the sediments (all the bits and pieces) turn into rocks?
3. Why do you think most of the sedimentary rocks are above the earth's surface? Explain.
4. Explain whether the top or bottom layers would be the oldest layer of sedimentary rock and explain your answer.
5. Limestone is a sedimentary rock. Chalk is often made of limestone, how could you find out how hard limestone is?
6. Using 'First, next, then, explain how sedimentary rocks form.