




VOLCANOES

10 Interesting Facts about Volcanoes

- 1 Volcanoes do not just occur on land; they can also be found on the ocean floor and under ice caps. About 20% of the volcanoes in the world are underwater.
- 2 The world's largest active volcano is Mauna Loa in Hawaii, standing at a height of 4169 m.
- 3 The word "volcano" comes from Vulcan, the Roman god of fire.
- 4 Lava from volcanoes can reach temperatures of 1095°C.
- 5 A bird species called maleo uses heat given out by warm volcanic sand to incubate its large eggs. When the baby birds hatch, they burrow their way to the surface of the sand.
- 6 In 1963, an undersea volcano created the newest land mass on Earth, Surtsey Island, which lies off the southwest coast of Iceland. It took almost four years to give birth to Surtsey Island, by which time the island stood 150 m above sea level and covered an area of about 3 km².



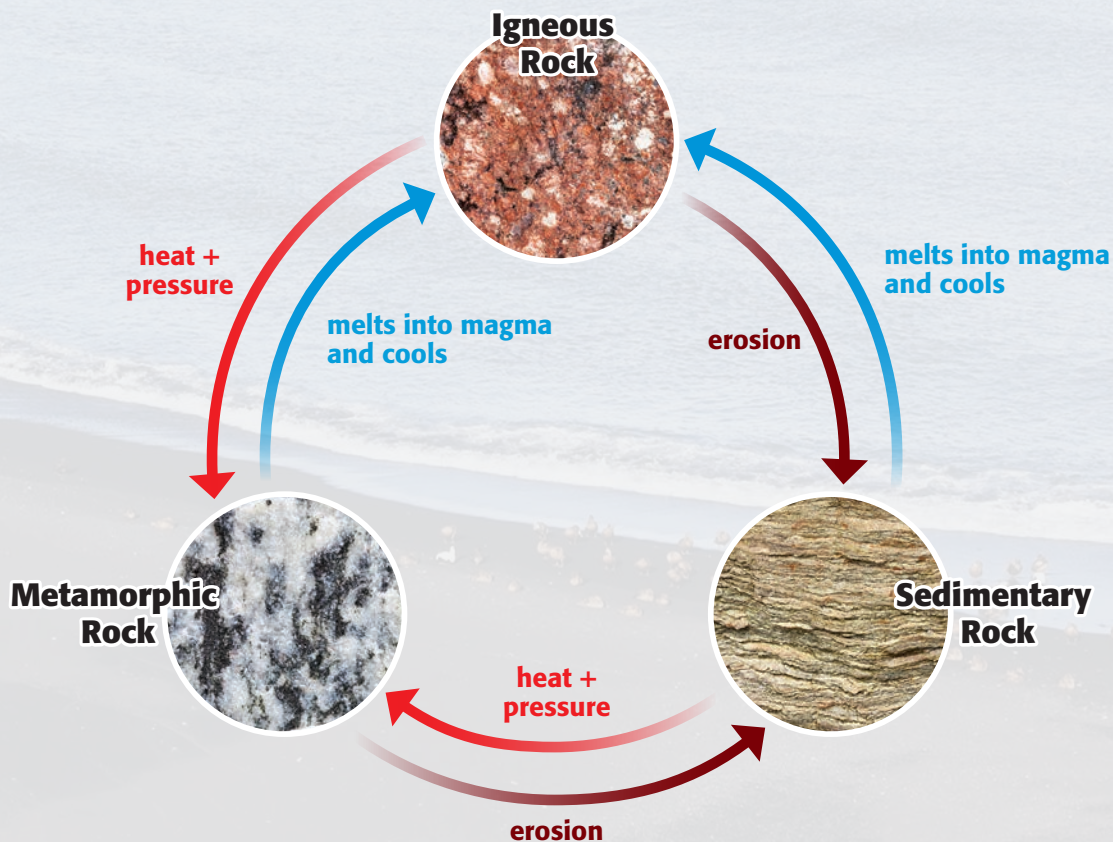
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- A wide-angle photograph of a black sand beach. The sand is dark and fine-grained. In the foreground, a person is standing on the beach, looking out at the ocean. The waves are breaking on the shore, creating white foam. The sky is clear and blue. The background shows a rocky coastline with green hills.
- 7** The size of a volcanic eruption can be measured by a Volcanic Explosivity Index (VEI), with 0 being the weakest and 8 the strongest. 8 is usually reserved for super eruptions, and the volcanoes producing VEI8 super-eruptions are typically called “supervolcanoes”. One of the VEI8 super-eruptions happened in Mount Toba on the Indonesian Island of Sumatra about 73 000 years ago.
- 8** Have you ever seen a beach with black sand? Because of constant volcanic activity, some volcanic islands such as Iceland and Hawaii have black beaches. The black sand is made of basalt, an igneous rock formed when cooled lava is broken down into sand particles by the pounding of the ocean waves. Don’t you think it is cool to walk on a beach with black sand?
- 9** Volcanic areas contain rich nutrients such as potassium and phosphorous and are fertile farmland for different agricultural activities. Nowadays, more than 300 million people live in the shadow of active volcanoes, including Mount Vesuvius in Italy, Mount Rainier in the U.S., and Popocatepetl in Mexico.
- 10** Iceland is made up almost entirely of volcanic rocks like those found on the ocean floor. It gradually built up above sea level through intense and prolonged eruptions.



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Together, igneous, sedimentary, and metamorphic rocks form a cycle. The rock cycle is a continuous process of change that all kinds of rocks go through over a long period of time. Melting, extreme heat and pressure, and erosion are involved in different processes which act on rocks to change them from one type to another.



Igneous and sedimentary rocks can become metamorphic rocks under intense heat and pressure.

When igneous and metamorphic rocks break down into small pieces and are carried away in a process called erosion, they become sedimentary rocks.

Metamorphic and sedimentary rocks can become igneous rocks if they melt into magma and cool.