

## **Creation of Shimane: Geological Composition Chart**

The geological composition of Shimane Prefecture can be broadly divided into three geographical zones: the eastern area, western-central area, and coastal area.

The eastern half is largely composed of igneous rock (formed by cooling magma or lava) and is represented by the red and darker pink areas on the map. These rocks formed between the Cretaceous and Paleogene periods, roughly 145 million to 23 million years ago.

The central and western areas of Shimane are predominantly made up of two kinds of rock: sedimentary rock, which is formed of compressed particles, and metamorphic rock, which was created when tectonic plate movement exerted extreme pressure on the sedimentary rock. These areas date from the Permian period through the end of the Mesozoic era, from 299 million to 66 million years ago, and correspond to the large areas of pale yellow, blue, and orange on the map.

Finally, Shimane's coastal areas consist mainly of igneous and sedimentary rock that formed between the start of the Miocene epoch, roughly 23 million years ago, and the present. This is the era in which the Sea of Japan formed, and areas of what is now the coast were part of the ancient seafloor. These rocks are represented on the map by the many small, individually colored sections distributed along the coastline, including the fragmented blue and orange areas along the central coast and on the Shimane Peninsula.

In the upper-left corner of the map is a diagram of the Oki Islands, located off the coast of the Shimane Peninsula. The dark pink ring on Dōgo represents gneiss—a layer of metamorphic rock that formed during the Mesozoic era (252 million to 66 million years ago), while Japan was still part of the Eurasian supercontinent. It is one of the oldest rocks in Japan and is visible in very few places in the country.