

Objectives: Explain the differences between rocks and minerals; name and describe the three types of rocks; list some uses of rocks.

Most rocks are made of minerals

Minerals combine to form most rocks. It is important to know, though, that not all rocks are made of minerals. A rock is a _____ that is usually made up of one or more types of _____ that makes up the _____ of the earth.

The first thing to remember when learning about rocks is rocks are not minerals. Rocks are composed of different _____ of different _____. This means they lack a _____. Because the rock can be made of many minerals and each mineral can have a different crystal shape, a rock lacks its own _____.

While most rocks are made of several minerals, some are just made of one mineral and some aren't many of any minerals. Limestone is a rock that is composed nearly entirely of just one mineral: _____. We will still find trace amounts of another mineral in there, but it is so insignificant we ignore it as a major part of its chemical makeup. Therefore we say the rock is _____. This words means the rock is made mostly of one mineral.

Our world is built of rocks

When we look at the surface of the earth you see _____, plants, _____, oceans, and so on. These are what we call _____. They make up a tiny sliver of the earth's surface. Rocks are found below the surface features (and they are found in them, too!). Rocks are found in the first layer of earth. Here are the four layers:

- _____ (5-40km thick, avg: 32km). This is the first layer and holds the surface features and is made of solid _____. This layer accounts for only 0.5% of the earth's thickness!

- _____ (2900km thick). This layer is made of very hot, _____ but _____ rock. It's very similar to an extremely thick syrup, but it is not liquid.
- _____ (2550km thick). This layer is made of molten _____.
- _____ (1,200km thick). This layer is made of solid _____.
Why is it solid? There is so much pressure that the metal has no choice but to stay as a solid. It would be liquid if there wasn't so much pressure.

Rocks are very common in our crust and it should come as no surprise that we use them in our lives. Rocks are a source of:

- _____ for houses, skyscrapers, etc.
- _____ such as iron, aluminum and copper (think ores)
- _____ and other works of art
- Bases for _____ for roads and highways.

There are three types of rocks

There are hundreds of types of rocks in the world. Yet, each one can be classified into one of three groups. We classify the rocks based on how they _____.

- _____ rocks form when _____ rock cools and become _____.
- _____ rock forms when pieces of older rock, plants, and other loose material become _____ or _____ together. These rocks can also form through _____.
- _____ rocks form when existing rocks _____ into new types of rocks.