

Activity: Rocks

On SCOPE's Geology episode, you saw Julia find lots of different types of rocks!



Background:

Earth, which is also known as the 3rd rock from sun, is made up of rocks; from the mountains to the ocean floor, to deep below the surface, they are everywhere and they are all very different.

Depending on how they were formed, geologists classify rocks into three groups - igneous, sedimentary and metamorphic.

What to do:

Find as many rocks as possible! Here are just some of the many different types of rocks out there:

1. Igneous

Igneous, or volcanic, rocks are formed from rocks that have become molten far underground where it is extremely hot. When this molten rock moves closer to the surface or erupts out of volcanoes as lava, it cools and hardens into igneous rock.

Where can you find them?

Basalt is usually grey or black. It is used to form highways and is a major part of asphalt - the stuff that covers our roads so we can run, walk and cycle over the top of them!

Granite is often speckled with pink and dark grey grains. It is often used for kitchen benches, or flooring and monuments in big commercial buildings.

Pumice is a pale coloured rock with lots of tiny air bubbles. It is used to make light-weight cement but you can also find it in chemists - many people use it to scrub away dry skin. (Yuk!)

2. Sedimentary

Sedimentary rocks are formed when bits of rock and plants fall to the ground and get covered up by more layers of rock and plants. Eventually the pressure from all these layers causes the sediments to compress together into rock.

Where can you find them?

All you need to do to find **chalk** is go to school! Chalk is soft, white, has lots of tiny holes and is perfect for writing on blackboards.

You have probably heard of **coal**, but it might be hard to find. Coal is black and composed mainly of carbon. It burns easily which is why it is used as fuel at power plants to produce electricity.

Sandstone is composed of sand-sized grains and is often tan, brown or grey. **Limestone** is made up of smaller grains and can fizz in acid. Both are used as building materials so you might be in a house that is made of these rocks! There are also caves made completely out of these rocks, including the Naracoorte Limestone Caves which feature in Scope's Geology episode!

3. Metamorphic

These rocks are igneous or sedimentary rocks that have completely changed or gone through 'metamorphosis,' due to the intense pressures and temperatures deep underground.

Where can you find them?

Graphite is a very soft rock and you probably use it everyday- it is the 'lead' inside a pencil!

Slate is a rock that's often made into thin sheets to tile roofs or floors. In this form it is usually grey but it can also come in other colours.

Marble is a pale coloured rock full of crystals. Many famous statues and buildings that are hundreds of years old are made out of marble - like the Taj Mahal in India. Finely ground marble is even found in things like toothpaste and paints and believe it or not marbles aren't made of marble - they are usually made of glass!