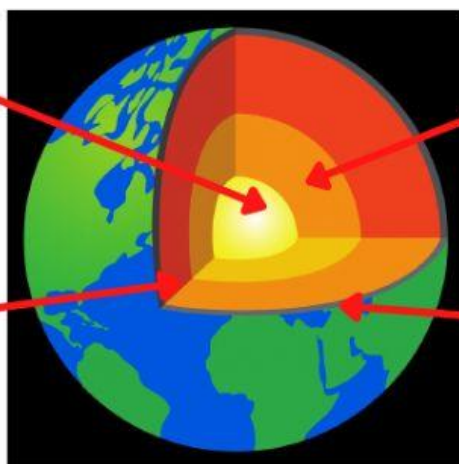


## WHERE CAN WE FIND MAGMA?

The solid part of the Earth is called **geosphere**. It is made up four **layers**:

**Innes core** is the centre os the Earth.

**Mantle** is the thickest layer. It is made up of **magma**, wich is semi-liquid.



The **outer core** is the layer around the inner core. It is liquid.

The **crust** is the top layer. It is thinner than the other layers.

The **litosphere** is the solid outer part of the geosphere, including the crust and top part of the mantle.

## WHY ARE ROCKS IMPORTANT?

The **litosphere** is made up of **rocks**. Rocks are made up of **minerals**. Some rocks are made up of different minerals and other are made up of only one mineral.



**Granite** is made up of 3 different minerals: quartz, feldspar and mica.



**Marble** is made up of only one mineral: calcite.

# CLASSIFYING ROCKS

We classify rocks into **3 mains groups**:

## SEDIMENTARY ROCKS

**Sedimentary rocks** are formed by **sediments** that are carried by rivers and settle at the bottom of lakes, seas or oceans. The sediments are compressed over millions of years. The **solidify** and become rocks.



## IGNEOUS ROCKS

**Igneous rocks** are formed by **magma**. When magma comes to the surface through **volcanic eruptions**. Igneous rocks can also form from below the Earth's surface. These are called *intrusive* rocks.



## METAMORPHIC ROCKS

**Metamorphic rocks** are originally sedimentary or igneous rocks. These rocks are **transformed** over time by intense **heat** and **pressure** below the Earth's surface.



## HOW DO WE USE ROCKS?

We use them in all types of things:

- Floors and work surface
- Roofs of houses
- Board
- Build houses



# IS A DIAMOND A ROCK?

**Minerals** are solid substances which form naturally. Minerals are used to make things.

## CLASSIFYING MINERALS:

We classify minerals by observing some of their **characteristics**:

### COLOUR

Minerals occur in many different colours.  
Example: blue, green, pink, etc.

### LUSTRE

Lustre is another way of saying "shininess". We classify minerals depending on how shiny or dull they are.  
Example: vitreous, metallic, dull, waxy,...

### CLEAVAGE AND FRACTURE

Minerals can occur in crystal form. Some crystals break into different parts with flat surfaces. This is called cleavage. Others leave a more uneven surface. This is called fracture.

### HARDNESS

The hardness of a mineral is how difficult it is to **scratch** it. We use the **Mohs scale** to measure the hardness of a mineral. On the scale, each mineral can scratch the one previous to it.

1 Talc	2 Gypsum	3 Calcite	4 Fluorite	5 Apatite
6 Feldspar	7 Quartz	8 Topaz	9 Corundum	10 Diamond

## HOW DO WE USE MINERALS?

Minerals are an important part of our daily lives. We use them in all types of things.

- Cement
- Watches
- Toasters
- Coins