

CHAPTER – 2 (GEOGRAPHY)
INSIDE OUR EARTH (MODULE - 1/1)
BRIEF OF THE LESSON

CLASS VII

INTERIOR OF THE EARTH

Just like an onion, the earth is made up of several concentric layers with one inside another.

CRUST

The uppermost layer over the earth's surface is called the crust. It is the thinnest of all the layers. It is about 35 km. on the continental masses and only 5 km. on the ocean floors.

MINERAL CONSTITUENTS OF CONTINENTAL MASS AND OCEANIC CRUST

The main mineral constituents of the continental mass are silica and alumina. It is thus called sial (si-silica and al-alumina). The oceanic crust mainly consists of silica and magnesium; it is therefore called sima (si-silica and ma-magnesium).

MANTLE

Just beneath the crust is the mantle which extends up to a depth of 2900 km. below the crust.

CORE

The innermost layer is the core with a radius of about 3500 km. It is mainly made up of nickel and iron and is called nife (ni – nickel and fe – ferrous i.e. iron). The central core has very high temperature and pressure.

ROCKS AND MINERALS

The earth's crust is made up of various types of rocks. Any natural mass of mineral matter that makes up the earth's crust is called a rock. Rocks can be of different colour, size and texture.

TYPES OF ROCKS

There are three major types of rocks: igneous rocks, sedimentary rocks and metamorphic rocks.

IGNEOUS ROCKS

When the molten magma cools, it becomes solid. Rocks thus formed are called igneous rocks. They are also called primary rocks. There are two types of igneous rocks: intrusive rocks and extrusive rocks.

EXTRUSIVE IGNEOUS ROCKS

When this molten lava comes on the earth's surface, it rapidly cools down and becomes solid. Rocks formed in such a way on the crust are called extrusive igneous rocks. They have a very fine grained structure. For example, basalt. The Deccan plateau is made up of basalt rocks.

INTRUSIVE IGNEOUS ROCKS

Sometimes the molten magma cools down deep inside the earth's crust. Solid rocks so formed are called intrusive igneous rocks. Since they cool down slowly they form large grains. Granite is an example of such a rock. Grinding stones used to prepare paste/powder of spices and grains are made of granite.

SEDIMENTARY ROCKS

Rocks roll down, crack, and hit each other and are broken down into small fragments. These smaller particles are called sediments. These sediments are transported and deposited by wind, water, etc. These loose sediments are compressed and hardened to form layers of rocks. These types of rocks are called sedimentary rocks. For example, sandstone is made from grains of sand. These rocks may also contain fossils of plants, animals and other microorganisms that once lived on them.

METAMORPHIC ROCKS

Igneous and sedimentary rocks can change into metamorphic rocks under great heat and pressure. For example, clay changes into slate and limestone into marble.

USES OF ROCKS

Rocks are very useful to us. The hard rocks are used for making roads, houses and buildings. You use stones in many games. For example, seven stones (pitthoo), hopscotch (stapu/kit kit), five stones (gitti). Find out some more such games by asking your grand parents, parents, neighbours, etc.

ROCK CYCLE

One type of rock changes to another type under certain conditions in a cyclic manner. This process of transformation of the rock from one to another is known as the rock cycle.

MINERALS

Rocks are made up of different minerals. Minerals are naturally occurring substances which have certain physical properties and definite chemical composition. Minerals are very important to humankind. Some are used as fuels. For example, coal, natural gas and petroleum. They are also used in industries – iron, aluminium, gold, uranium, etc, in medicine, in fertilisers, etc.