

## UPSC Civil Services Examination

### UPSC Notes [GS-I]

#### Topic: Inside Our Earth [Geography Notes for UPSC]

##### Inside Our Earth

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- The earth, is a dynamic planet.
- It is constantly undergoing changes inside and outside.

##### Interior of the Earth

- The earth is made up of several concentric layers with one inside another.
- Crust-
- The uppermost layer over the earth's surface.
- 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.
- The main mineral constituents of the continental mass are silica and alumina. It is thus called si-al (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.
- 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.
- Rock- Any natural mass of mineral matter that makes up the earth's crust.
- There are three major types of rocks-

- Igneous rocks-when the molten magma cools; it solidifies to become igneous rock.
- Sedimentary rocks- igneous rocks are broken down into small particles that are transported and deposited to form sedimentary rocks.
- Metamorphic rocks- When the igneous and sedimentary rocks are subjected to heat and pressure, they change into metamorphic rocks.
- 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.

