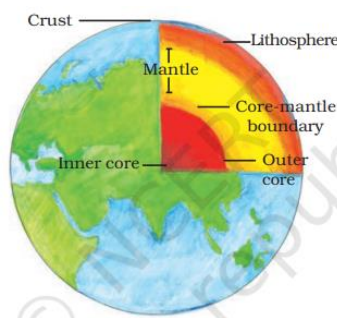


Chapter – 2: Inside our Earth

- Earth – homeland – dynamic planet
- Constantly changing – inside and outside
- Ever wondered – what's inside?

Interior of the Earth

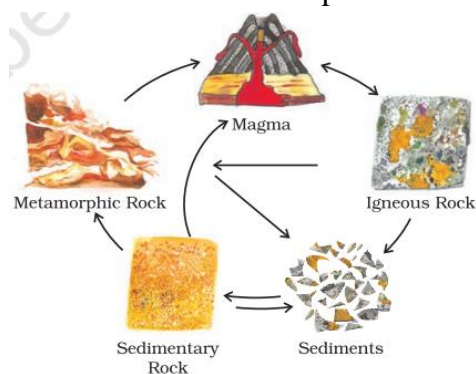
- Earth – made up of several layers – one inside other
- Crust –
 - Outermost layer – thinnest – 35 km – continents – 5 km – ocean beds
 - Main minerals – continents – **silica** and **alumina** (**sial**) – ocean beds – **silica** and **magnesium** (**sima**)
- Mantle –
 - Extends upto 2900 km
- Core –
 - Innermost layer – radius – 3500 km
 - Main minerals – **nickel** and **iron** (**nife** – **ni** for **nickel** and **fe** for **iron**)
 - Very high temperature and pressure



Rocks and Minerals

- Earth's crust – various types of rocks – natural mass of mineral matter
- 3 major types – **igneous rocks**, **sedimentary rocks**, **metamorphic rocks**
- Igneous rocks –
 - Molten magma – cools down – becomes solid (rocks)
 - Also called primary rocks
 - 2 types – **intrusive**, **extrusive**
 - Intrusive –
 - Molten magma – cools down inside crust
 - Cools down slowly – form large grains
 - Example – granite – grinding stones
 - Extrusive –
 - Lava – comes out of volcano – cools down rapidly
 - Formed on the outside of crust
 - Fine structure – basalt – Deccan plateau
- Sedimentary rocks –
 - Rocks – roll down, crack, breaks into smaller fragments – **sediments**

- Sediments – transported by wind, water
- Loose sediments – compressed and hardened – form layers of rocks
- Example – sandstone – made from grains of sand
- May also contain – fossils of plants, animals, micro-organism
- Metamorphic rocks –
 - Igneous and sedimentary – change into metamorphic – under heat and pressure
 - Example – clay changes to slate, limestone to marble
- Rocks – very useful
- Hard rocks - making roads, houses, buildings
- Stones – used in many games – *pitthoo, stapu, gitti*
- Rocks changes into one another – **rock cycle**
- Molten magma –cools down – igneous rocks – breaks down – sedimentary rocks – both under heat and pressure – metamorphic rocks – under heat and pressure – melts – molten magma



- Rocks – made of different minerals – naturally occurring substances – certain physical and chemical properties
- Minerals – very useful
- Some – used as fuels – coal, natural gas, petroleum
- Some – used in industries – iron, aluminium, gold, uranium – medicine, fertilisers also