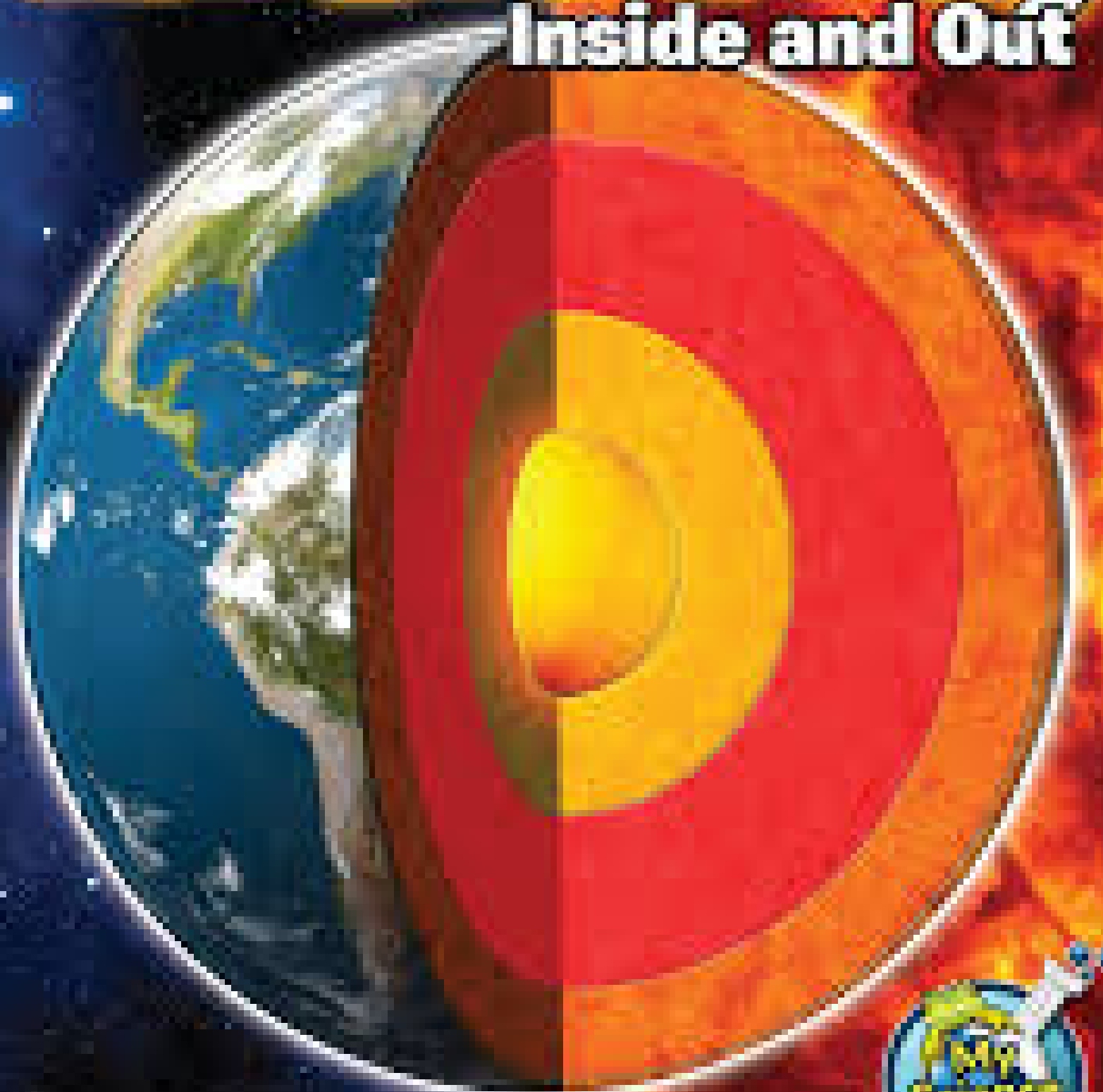


Studying Our

EARTH

Inside and Out

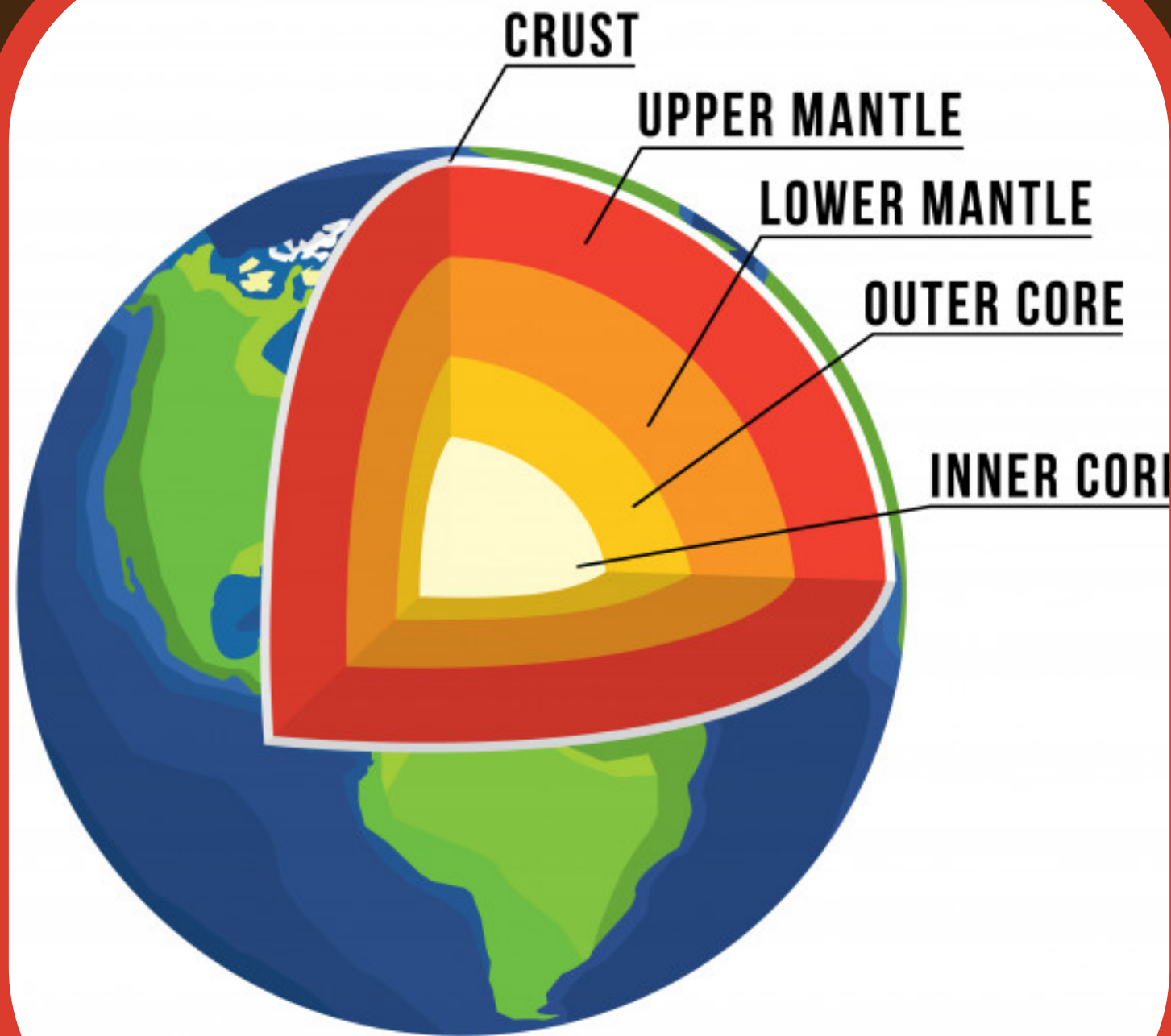


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Inside Our Earth Class 7

PRESENTED BY ALKA GARG

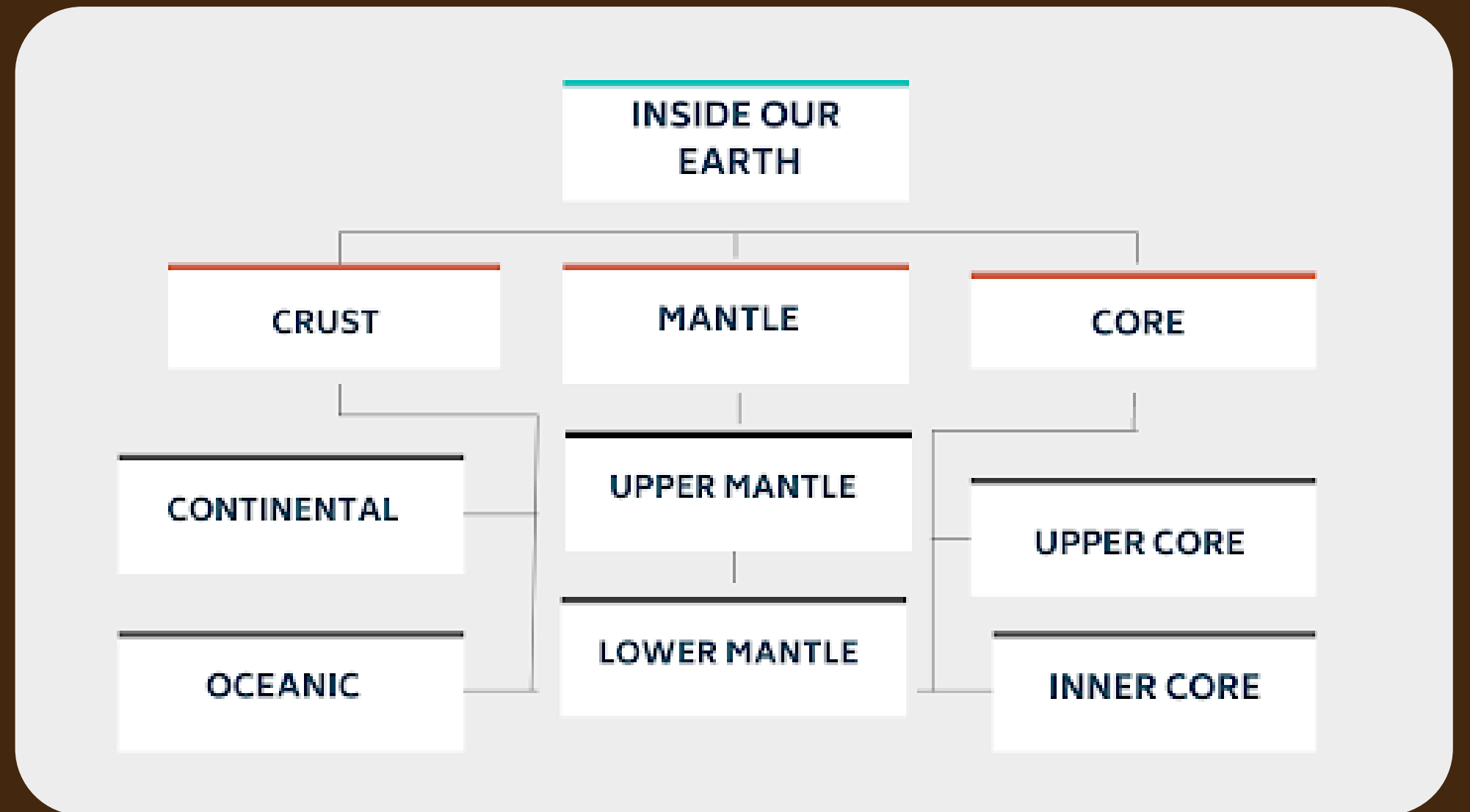
Topics to be Covered



- The layers of the Earth
- Crust
- Types of Earth's crust
- Mantle
- Core
- Rock and Minerals
- 3 types of rocks
- Igneous Rocks
- Sedimentary Rocks
- Metamorphic Rocks
- Uses of rocks and minerals
- Rock Cycle

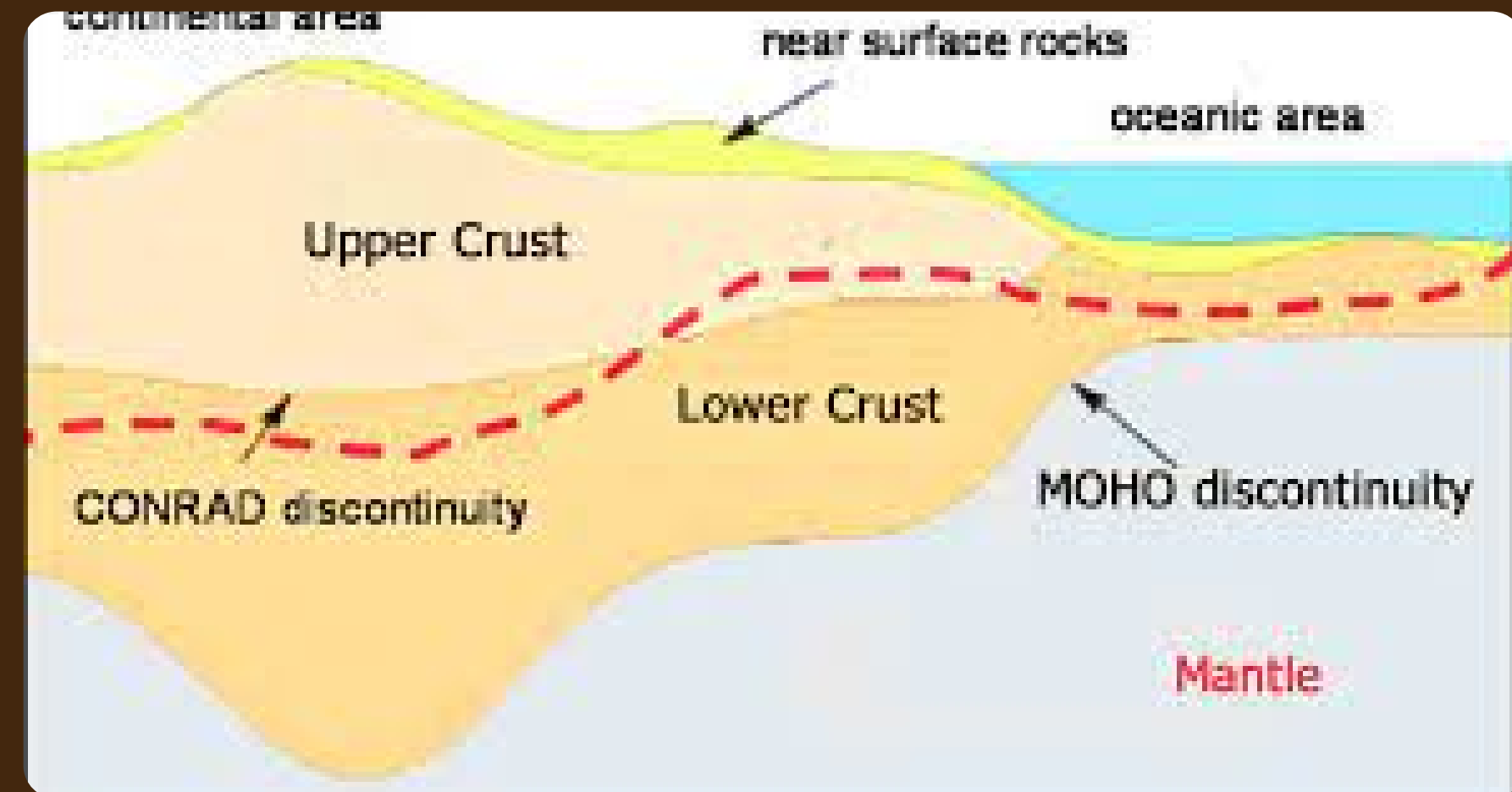
The Layers of the Earth

The Earth has been undergoing continuous transformation, both internally and externally. So it is known as a dynamic planet. The interior part of our Earth is divided into three layers – Crust, Mantle, and Core.

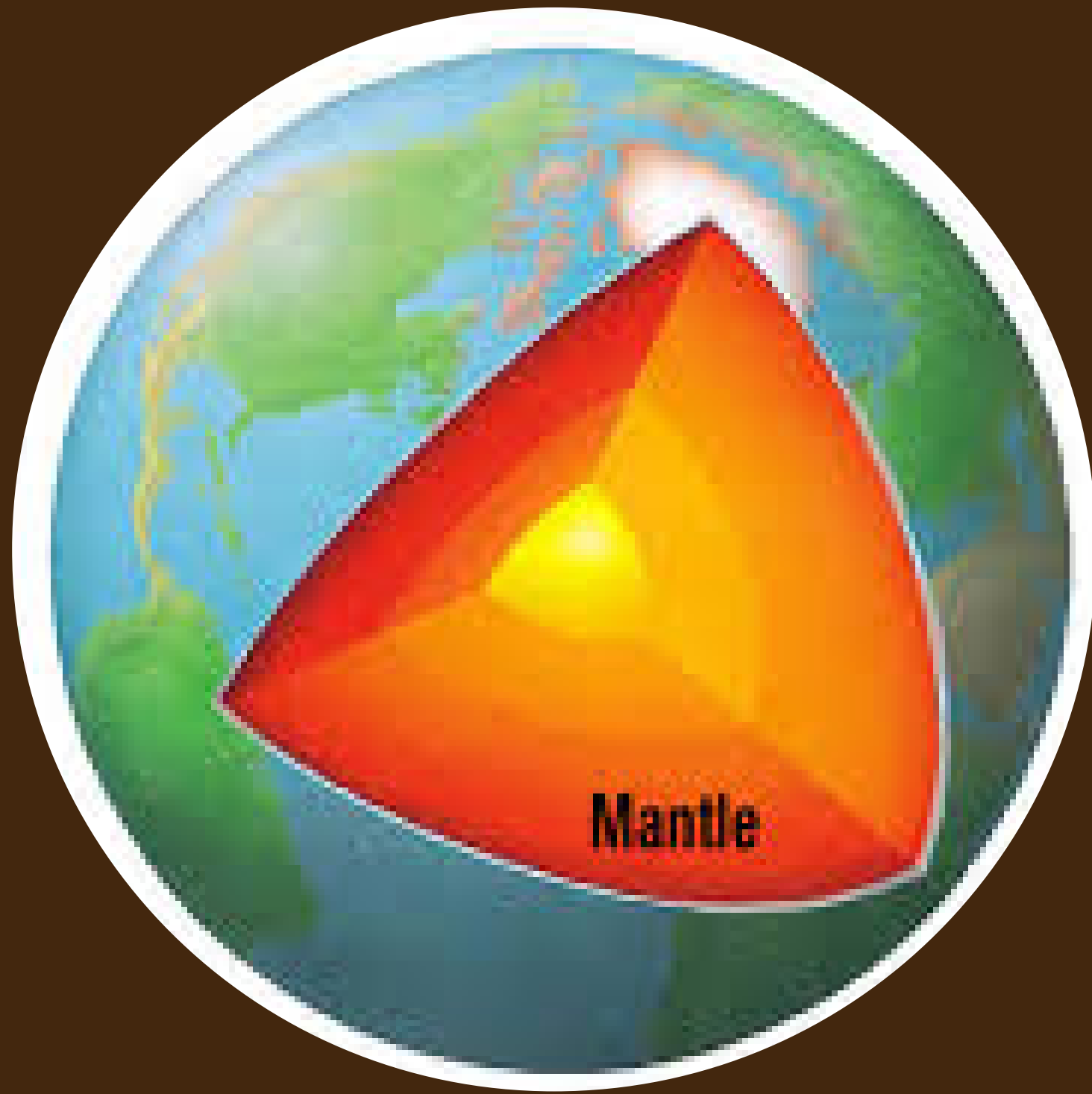


The Crust of the Earth

- It is the uppermost layer of the Earth's surface.
- It is the thinnest layer.
- It is composed of rocks and minerals.
- Its surface is covered with soil and minerals.
- The crust is divided into two layers- the upper continental crust & the Lower Oceanic Crust.



The Mantle of the Earth



- It is under the crust and the second layer.
- It extends up to a depth of 2900 km. under the crust.
- It is located between the mantle and core.
- Its thickness is about 2900 km.
- It contains molten magma.
- It is composed of olivine, a combination of iron, magnesium, and silicon.
- It consists of two layers-the upper mantle and the lower mantle.

The Core of the Earth



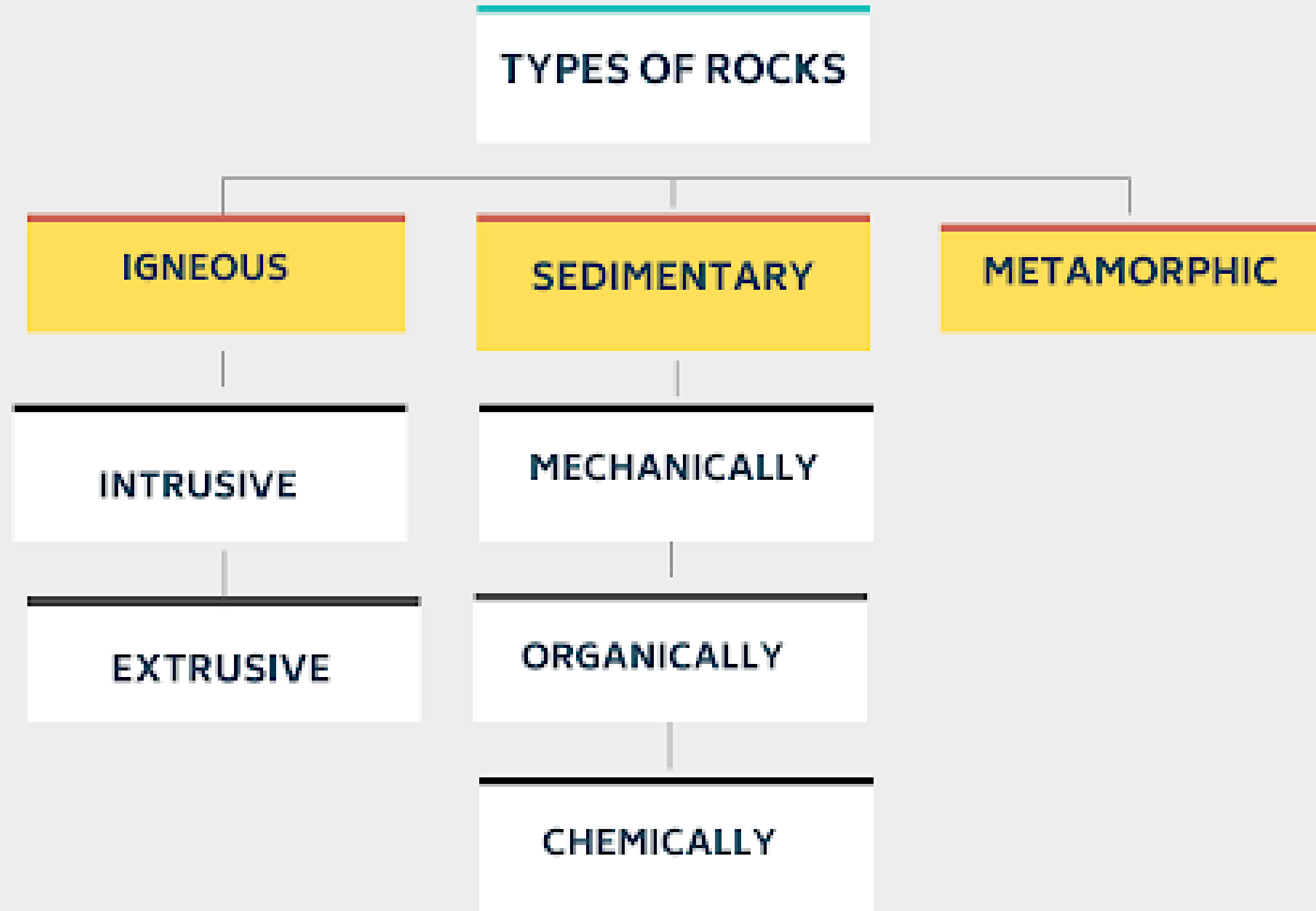
- The core is the innermost layer.
- It extends about 3500 km.
- It is made up of nickel and iron and is called life (ni-nickel and fe-ferrous i.e. iron.
- It has a very high temperature and pressure.
- It consists of two layers-the outer core and the inner core.

Rock and Minerals

The Earth's crust is made up of different types of rocks. A rock is a natural substance composed of solid crystals of different minerals that form the earth's crust. Rocks are of different types of sizes, colors, and textures. The study of rocks is called petrology.



Types of rocks



Igneous Rocks



These are formed by the cooling and solidification of molten magma under the earth's crust.

These are called Primary rocks as all other rocks are formed from these.

Igneous rocks are of two types-

Intrusive Rocks

Extrusive Rocks

Sedimentary Rocks



These are formed by the deposition of small fragments on the Earth's surface. These are carried by the agents of nature as rain, wind, ice plants, and animals. Sedimentary rocks are of three types:-

Mechanically

Organically

Chemically

Metamorphic Rocks

These rocks are formed when igneous and sedimentary rocks are completely changed due to excessive heat and pressure inside our Earth. These processes may take millions of years.

Ex. clay into slate, Limestone into marble, Sandstone into quartzite, Coal into graphite.

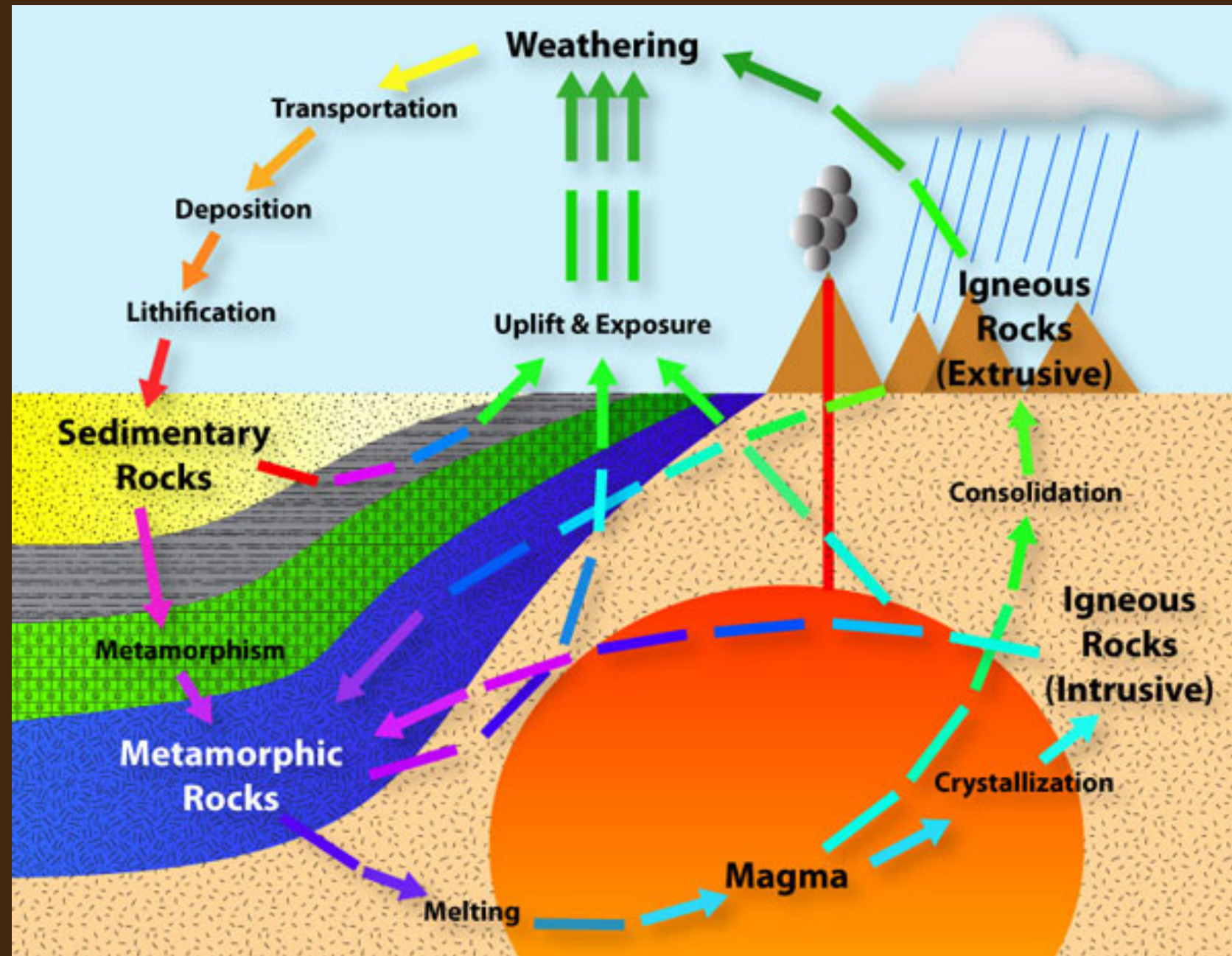


Uses of Rocks & Minerals



1. Rocks are used in building materials.
2. Rocks are used for making roads and houses.
3. Many machines and tools are made of metals.
4. Many useful things such as a pen, computers, cars, and cooking pots are made of minerals.
5. Minerals such as coal, petroleum, and natural gas are essential power sources.
6. Chemicals found in rocks are used to make fertilizers.

Rocks Cycle



A process in which rocks are continuously transformed from one type of rock to another through erosion, deposition, heat, pressure, melting, and cooling is called the rock cycle.

Let's test Our Knowledge.

1. What are the three layers of the Earth?
2. Which is the uppermost and thinnest layer of the earth?
3. Where is the deepest mine in the world?
4. What is the earth's crust made up of?
5. Which is the innermost layer of the earth?
6. Name the three types of rocks.
7. What is lava?
8. What is rock?
9. What is petrology?
10. What is mineralogy?



Thank you

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