# PLANET EARTH

## Inside the Earth
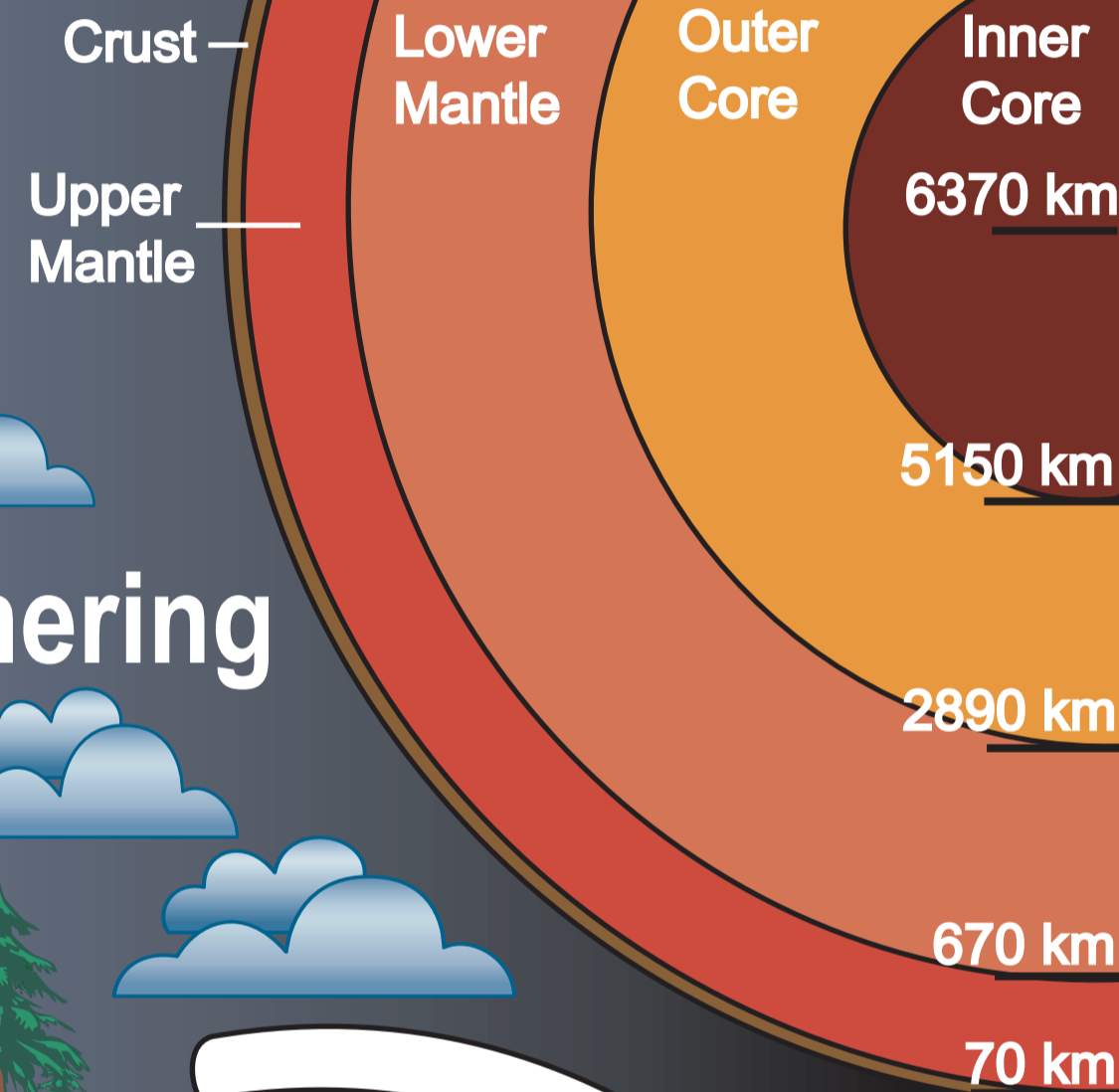
Planet Earth is made up of layers. All are solid except for the outer core. Internal heat causes movement of rocks in the mantle and in the thin surface crust.
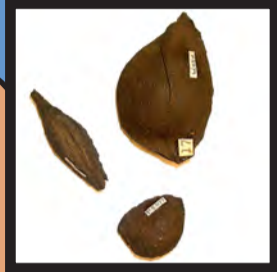
The planet is a dynamic place. The surface of the Earth is always changing as part of the rock cycle.

Crust —

Upper Mantle

Lower Mantle

Outer Core

Inner Core

6370 km

5150 km

2890 km

670 km

70 km

### Volcanic bombs



### Intrusions and Volcanoes

Some **IGNEOUS** rocks are formed from lava erupted by volcanoes. Others, like granite, cool down below the surface.

### Basalt, Co. Antrim



### Weathering

### Granite, Co. Carlow



As magma approaches the surface it cools and crystallises to become **IGNEOUS** rock.

Rocks at the surface are worn away by weathering and erosion and are transported as particles by rivers and the wind...

### Magma

## The Rock Cycle

### Deposition

The particles end up in the ocean and settle to form layers on the sea bed...

Magma rises upwards towards the surface of the Earth...

### Peridotite, Co. Galway



At extremely high temperatures, all crustal rocks melt and become magma...

### Marble, Italy



### Heat and Pressure

### Slate, Co. Kerry



When **SEDIMENTARY** rocks are subjected to pressure and temperature, they may become **METAMORPHIC** rock...

### Crustal melting

### Limestone with fossils, Co. Longford



### Sandstone, Co. Kerry



The layers become compacted and may form **SEDIMENTARY** rock. These rocks may contain fossils...