Journey to the centre of the Earth

As you know, the Earth is surrounded by a thin layer of gases. But have you ever wondered what is inside our planet?

If you started digging a hole straight down, about 13,000 kilometres later you would come out in Australia!

But what would you find on the way?

First of all you would go through the Earth’s thin crust. All of our resources for raw materials come from the crust, the oceans and the atmosphere.

It can be as thin as 5 km under the oceans, going up to about 70 km under the continents. The thin crust is the least dense of the Earth’s layers.

Under the crust you find the mantle. This layer goes down almost half way to the centre of the Earth. The mantle is almost entirely solid. However, there is a small amount of molten material under the lithosphere (crust and uppermost part of the mantle). This zone, under the lithosphere, is called the asthenosphere.

Next, you reach the outer core. This is a dense liquid, made of molten iron and nickel. Both of these metals are magnetic. They make the Earth behave like a giant magnet itself.

Finally there is the inner core. This is the densest part of the Earth. Unlike the outer core it is solid because of the very high pressure. It is also made of iron and nickel.

The outer and inner core make up just over one-half of the Earth’s radius.

- Draw a fully labelled cross-section of the Earth, sliced from North pole to South pole.