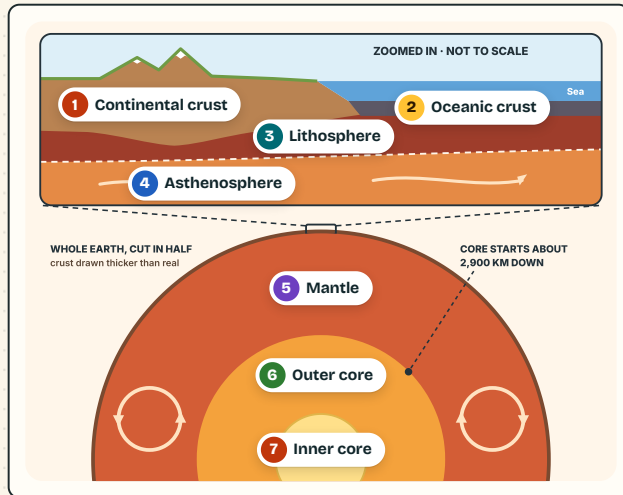


Plate Tectonics Explained

Earth's stiff outer shell is broken into plates that slide over a softer layer of hot rock, a few centimetres every year.



1 Continental crust

The thick crust that forms the land: about 25 to 70 km deep, thickest under big mountain ranges.

2 Oceanic crust

Thin, dense crust under the sea floor, only about 5 to 10 km thick. New oceanic crust forms at mid-ocean ridges.

3 Lithosphere

The crust plus the stiff top of the mantle, averaging at least 80 km thick. It is broken into tectonic plates.

4 Asthenosphere

Hot, softer rock in the upper mantle. It is mostly solid but can flow very slowly, so the plates above can move.

5 Mantle

About 2,900 km of hot, dense rock. Slow convection currents carry heat upwards and help to drive the plates.

6 Outer core

About 2,200 km of liquid iron and nickel. Earthquake S waves cannot pass through it, which is how we know it is liquid.

7 Inner core

A solid ball of iron and nickel about 1,250 km thick at Earth's centre, kept solid by enormous pressure.



Slow but unstoppable

The Atlantic widens about 2.5 cm a year at the Mid-Atlantic Ridge. That is 25 km every million years, enough to build an ocean.

NEXT IN THE SERIES

2. Types of Plate Boundary, with Real Examples