

Surprising heart of Earth's inner core

Scientists from China and the U.S. say that new research indicates the innermost core of our planet has another, distinct region at its centre

EARTH ANATOMY

Earth
12,742km in diameter

Crust
5-50km thick

Upper mantle
360-405km

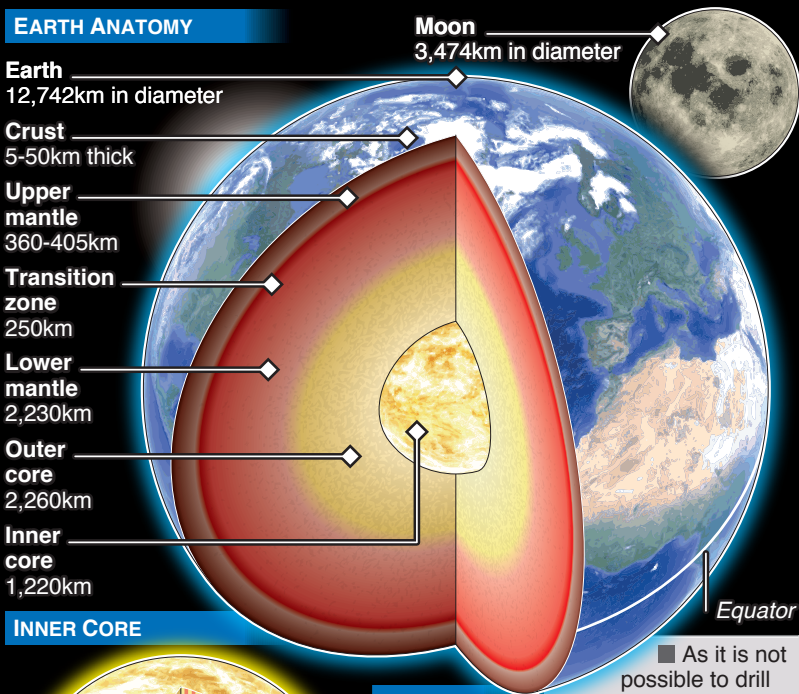
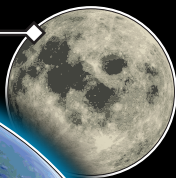
Transition zone
250km

Lower mantle
2,230km

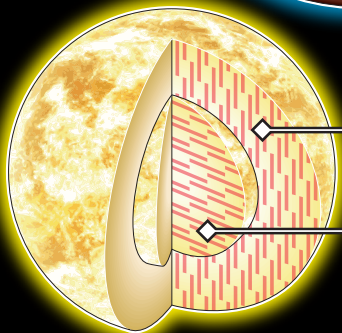
Outer core
2,260km

Inner core
1,220km

Moon
3,474km in diameter



INNER CORE



NEW THEORY

Outer inner core: Iron crystals aligned north-to-south

Inner inner core: Iron crystals aligned east-to-west

■ As it is not possible to drill into core, scientists collected data from echoes generated by earthquakes

■ Seismic wave data implies significant event could have flipped orientation of core, switching magnetic field from equatorial to polar axis