



## EARTH'S CORE - GEOGRAPHY

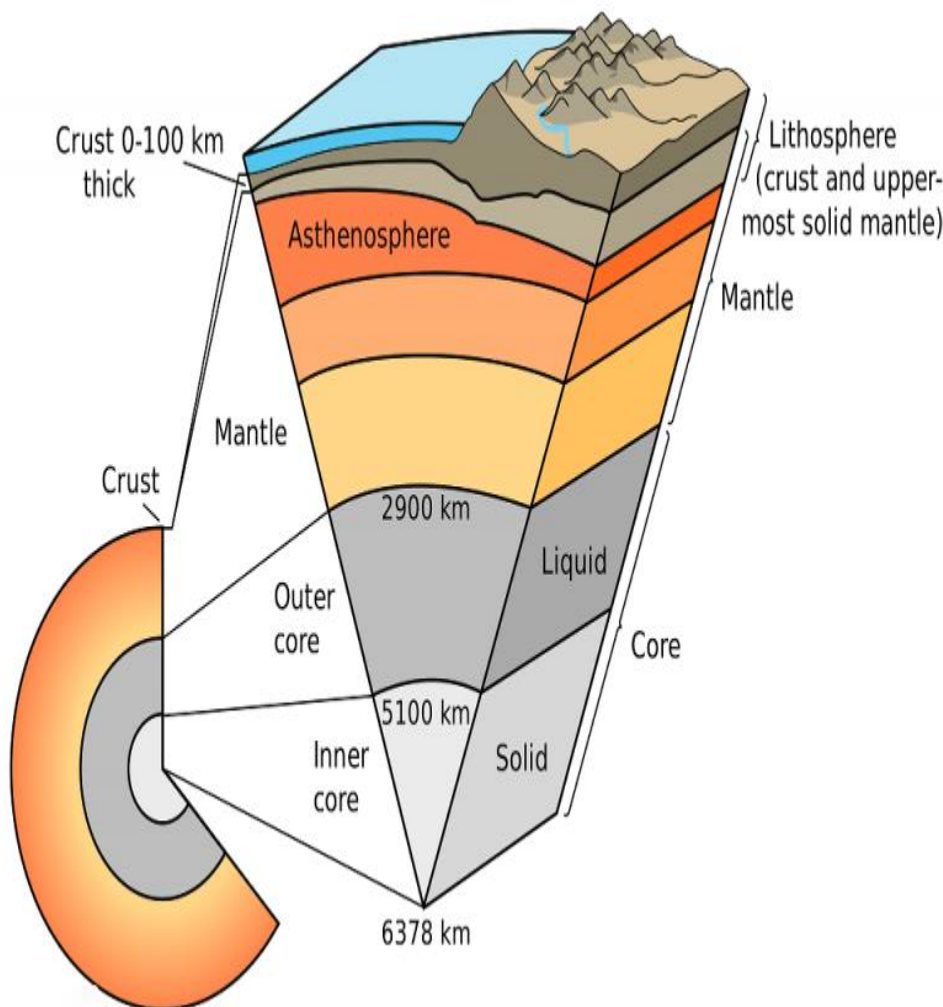
### News: Earth's Core is Rotating in Reverse Direction

#### What's in the news

A research by scientists has revealed that the rotation speed of Earth's core is slowing down and has even reversed, a phenomenon called 'backtracking'.

#### Earth's core

- The inner part of the planet can be divided into three different layers: **crust, mantle, and core.**
- Earth's core** is the hottest part of the planet, equivalent to that of the Sun's surface.
- It is around **5,180 kilometers** deep inside the Earth and consists mainly of **iron and nickel.**
- The inner core is surrounded by a **liquid metal outer core**, which acts as a barrier with the rest of the Earth.
- This barrier allows Earth's core, like a hot solid ball of metal, to spin independently and not necessarily align with the rest of the planet.



#### Rotation of inner core



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- Earth's magnetic field pulls on the solid ball of hot metal, causing it to spin.
- Also the gravity and flow of the fluid outer core and mantle exert a drag on the core.
- The push and pull of these forces have resulted in variations in the core's rotational speed.

## Impact

- When the core spins more slowly, the mantle speeds up. This shift makes **Earth rotate faster**, and the **length of a day shortens**.
- But such rotational shifts translate to mere thousandths of a second in day length.

**Source:** <https://www.livemint.com/science/news/earths-core-is-now-rotating-in-reverse-direction-slowing-down-what-does-it-mean-11720335849422.html>

