

Earth's
Materials and
Systems



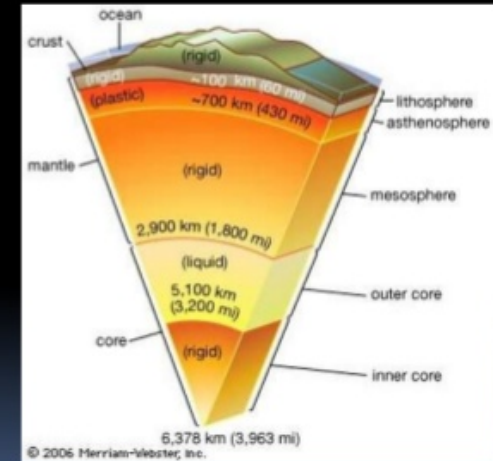
Geosphere

The Geosphere is any of the almost spherical concentric regions of matter that make up the earth and its atmosphere, as the lithosphere and hydrosphere.

The Geosphere contains **Sediments, Soil, Solid and Molten Rock.**

What are the PHYSICAL layers of the Geosphere?

- Lithosphere
 - Crust and uppermost mantle
 - Consists of tectonic plates
- Asthenosphere
 - Mantle rock that moves slowly. Solid yet plastic
 - Allows tectonic plates to move
- Mesosphere
 - Lowest part of mantle
- Outer core
 - Liquid nickel and iron
- Inner core
 - Solid nickel and iron
 - 4,000-5,000°C
 - Enormous pressure



Sediments

matter that settles to the bottom of a liquid
Sedimentary rocks cover 75% of the Earth's surface.



Coastal Sediments



Gravel

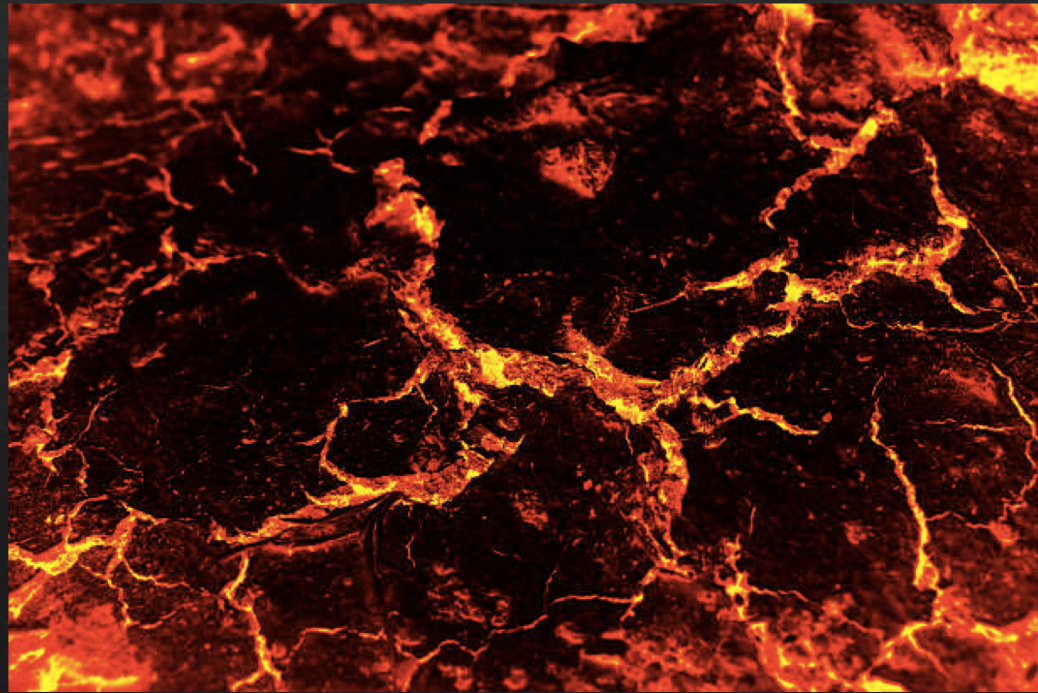
Soil

Soil is a mixture of organic matter, minerals, gases, liquids, and organisms that together support life.



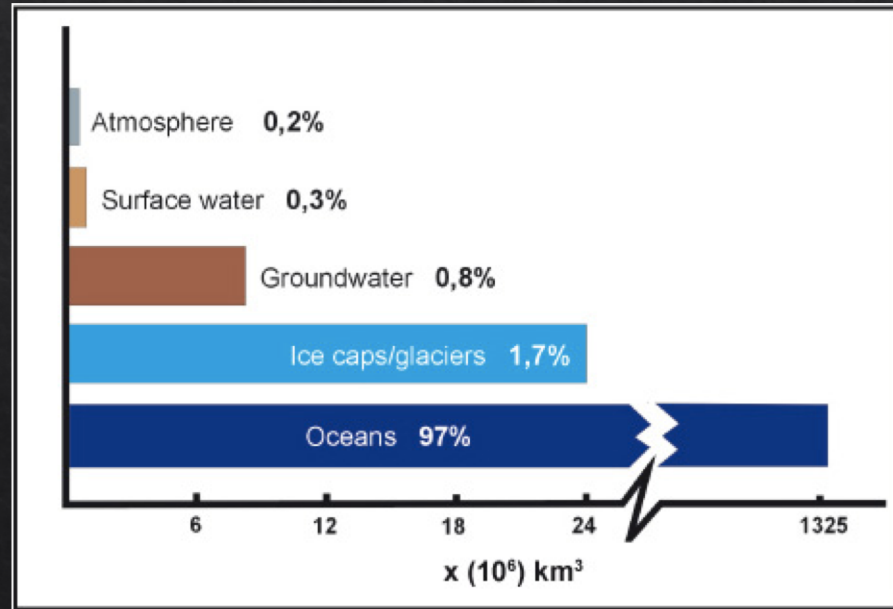
Solid and Molten Rock

Molten rock refers to **rock** that has been melted. **Molten rock** can refer to: Lava, **molten rock** above ground. Magma, **molten rock** underground.



Hydrosphere

A **hydrosphere** is the total amount of water on a planet. The **hydrosphere** includes water that is on the surface of the planet, underground, and in the air.



Water

Water is a transparent, tasteless, odorless, and nearly colorless chemical substance, which is the main constituent of Earth's streams, lakes, and oceans, and the fluids of most living organisms.



Ice

Ice is water frozen into a solid state.



Atmosphere

The envelope of gases surrounding the earth or another planet



Biosphere

The regions of the surface, atmosphere, and hydrosphere of the earth (or analogous parts of other planets) occupied by living organisms

