

# Summary Information Sheet THE EARTH



The Earth is the third planet from the Sun and is the only planet known to support life. Equally unique is the presence of a large amount of water in different conditions: liquid in lakes, rivers and oceans, frozen as ice and vapour in clouds. It gives Earth its blue colour and so our planet also is called the Blue Planet.



**Rocky upper mantle**  
640 km thick with convection streams which move the plates

**Rocky inner mantle**  
2290 km thick with convection streams

**Molten outer core**  
1820 km thick

**Solid inner core**  
7600 km diameter

**Pacific Ocean**  
Part of the watershell Hydrosphere 4 km

**Continental and ocean crust boundary**

**Crust**  
- oceanic 10 km thick  
- continental 40 km  
The crust is divided in about a dozen plates which are moving

**Electrical currents in the core produce the magnetic field**

**Magnetic field, shield and polar lights**

**North Polar ice cap (frozen ocean)**

**Mid-ocean ridge plate boundary**

**South Polar icecap (frozen continent)**

**Inclination of the Equator to orbital plane 23,5°**

**~70 km thick Atmosphere**  
composed of  
78% nitrogen  
21% oxygen  
0,9% argon  
0,03% carbon dioxide

**Atmosphere layers:**  
Exosphere (1000 km)  
Ionosphere (200 km)  
Thermosphere (100 km)  
Mesosphere (50 km)  
Stratosphere (Ozone Layer)  
Troposphere (10 km)

**Earth and seasons:**  
One revolution around the Sun lasts 365 days



Earth's crustal plates

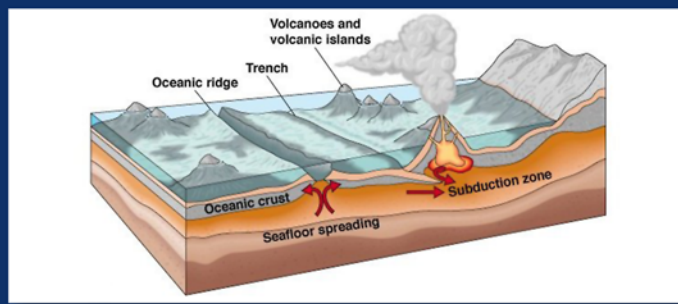


Plate tectonics

## Physical Data

Property	Earth
Distance from the Sun	150 million km
Rotation period	23 hrs 56 min
Equatorial Radius	6378 km
Mass	$5.97 \times 10^{24}$ kg
Density	5520 kg/m <sup>3</sup>
Satellites	1

## For comparison

Property	Venus	Mars
Distance from the Sun	108 million km	228 million km
Rotation period	243 days	24 hrs 37 min
Equatorial Radius	6052 km	3397 km
Mass	$4.87 \times 10^{24}$ kg	$6.42 \times 10^{23}$ kg
Density	5240 kg/m <sup>3</sup>	3940 kg/m <sup>3</sup>
Satellites	0	2

Images: ESO, ESA, NASA, except otherwise stated

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