

UNIT 1 – PLANET EARTH



PRIMARY 6 – SCIENCE
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UNIT 1 – PLANET EARTH

- **Introduction (Big Bang [video](#), Visions of the Earth [video](#))**
- **What is the Earth like?**
- **The three layers of the Earth**
 - **The atmosphere**
 - **The hydrosphere**
 - **The geosphere**

INTRODUCTION

Why is the Earth called 'the blue planet'?










WHAT IS THE EARTH LIKE?

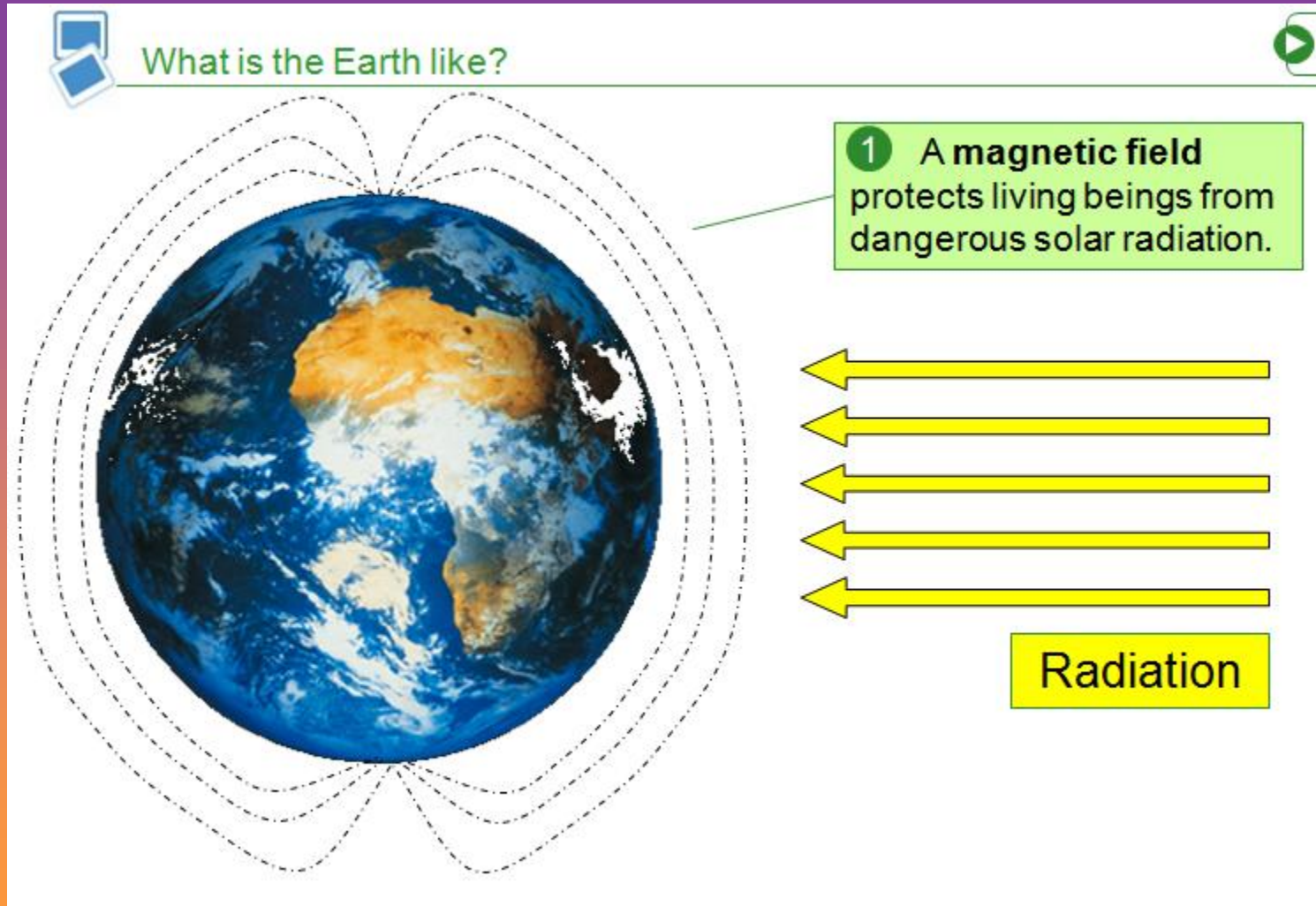


What is the Earth like?



-  Intense magnetic field
-  An atmosphere containing oxygen
-  Moderate average temperature (15 °C)
-  A water cycle
-  A large, natural satellite, the Moon
-  Geological activity
-  Conditions for life exist.

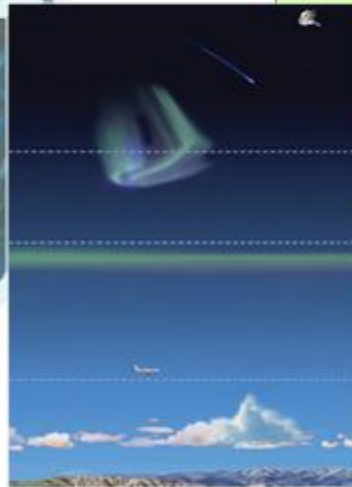
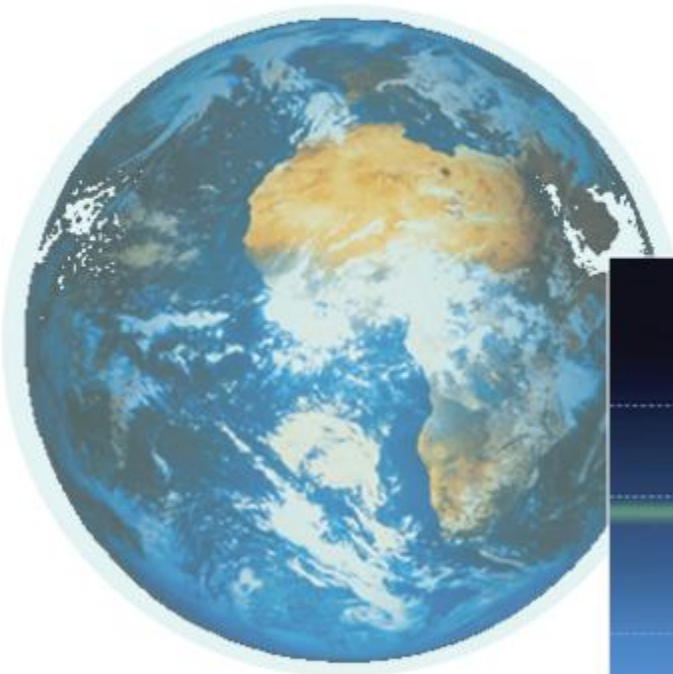
WHAT IS THE EARTH LIKE?



WHAT IS THE EARTH LIKE?



What is the Earth like?



2 The **atmosphere** consists of a mixture of gases.

Main components:

nitrogen (4/5)

oxygen (1/5)

WHAT IS THE EARTH LIKE?



What is the Earth like?



3 Moderate average temperature
(15 °C)

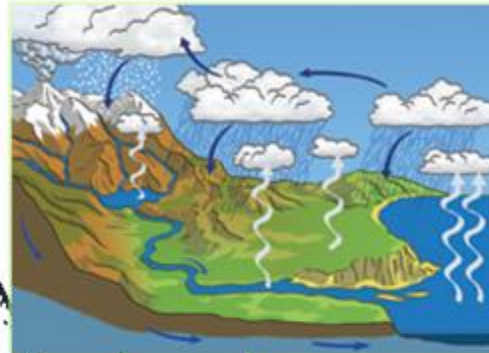
This is possible because of:

- the distance from the Sun
- the composition of the atmosphere

WHAT IS THE EARTH LIKE?



What is the Earth like?



4

A water cycle

Water exists in three states due to temperature variations:

- ice
- liquid
- water vapour

WHAT IS THE EARTH LIKE?



What is the Earth like?



⑤ A relatively large, **natural satellite**, the Moon.

The gravitational attraction of the Moon causes ocean tides.



WHAT IS THE EARTH LIKE?



What is the Earth like?



6 Geological activity:
earthquakes,
volcanoes,
mountain building,
erosion, etc.

WHAT IS THE EARTH LIKE?



What is the Earth like?



7 Conditions for life exist.

THE THREE LAYERS OF THE EARTH

The atmosphere

The hydrosphere

The geosphere

THE THREE LAYERS OF THE EARTH

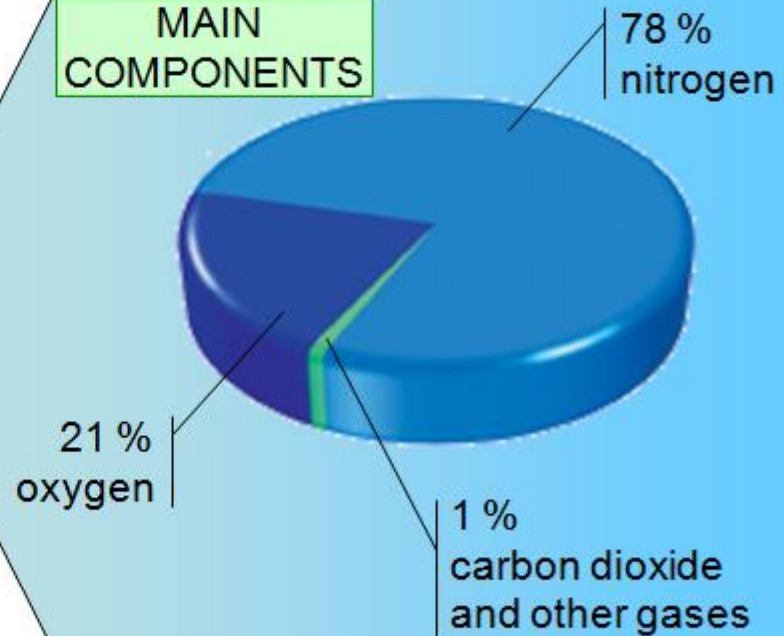


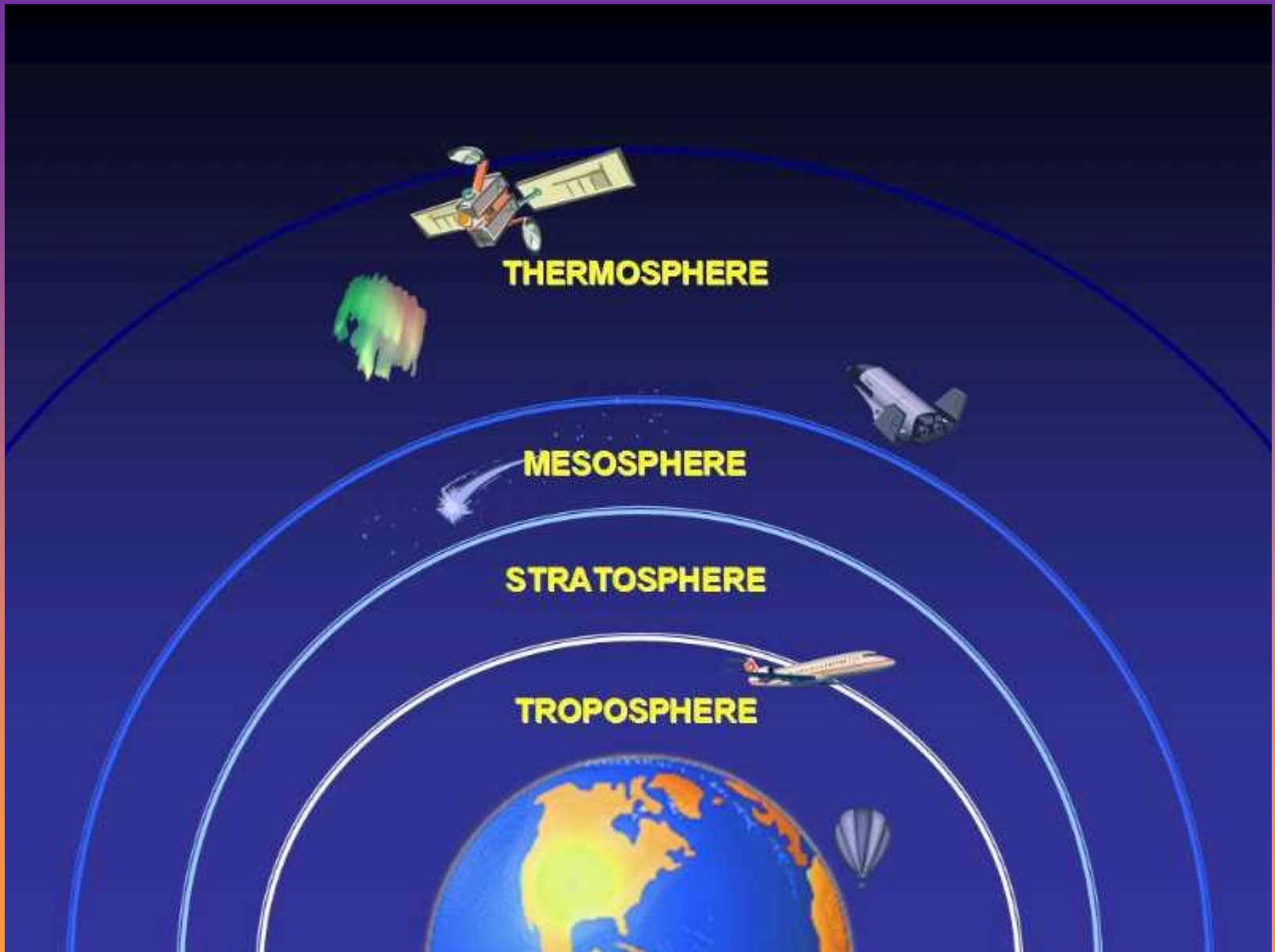
The atmosphere



The layer of air
which surrounds the Earth

MAIN
COMPONENTS





TROPOSPHERE:

Very thin layer, but contains the 80% of the total mass of the atmosphere. The meteorological phenomena occur here.

STRATOSPHERE:

About 30 km thick. The ozone layer is here.

MESOSPHERE:

About 40 km thick. It contains clouds of ice and dust.

THERMOSPHERE:

Highest and thickest layer. Artificial satellites are sent here from the Earth.

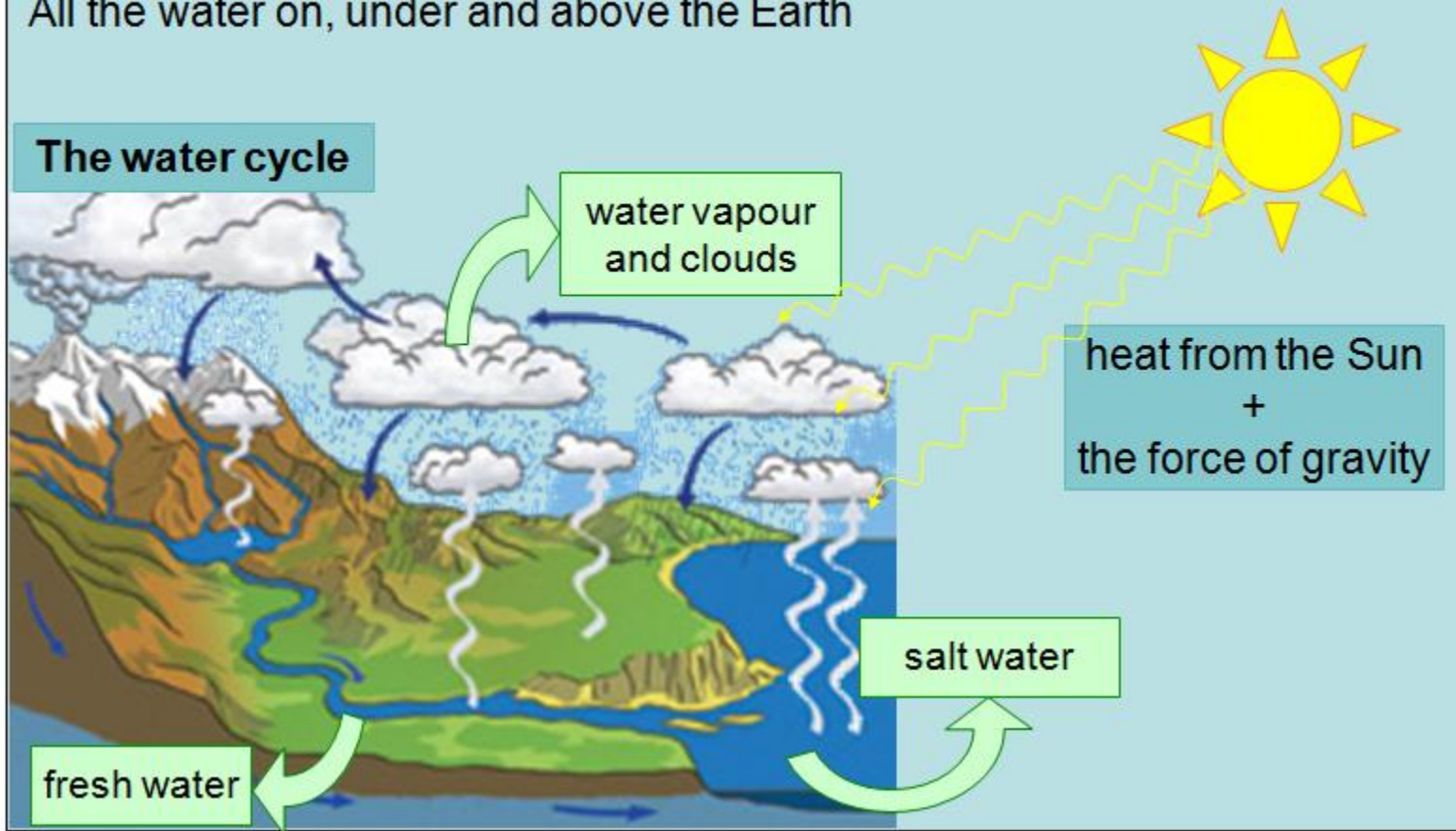
THE THREE LAYERS OF THE EARTH



The hydrosphere

All the water on, under and above the Earth

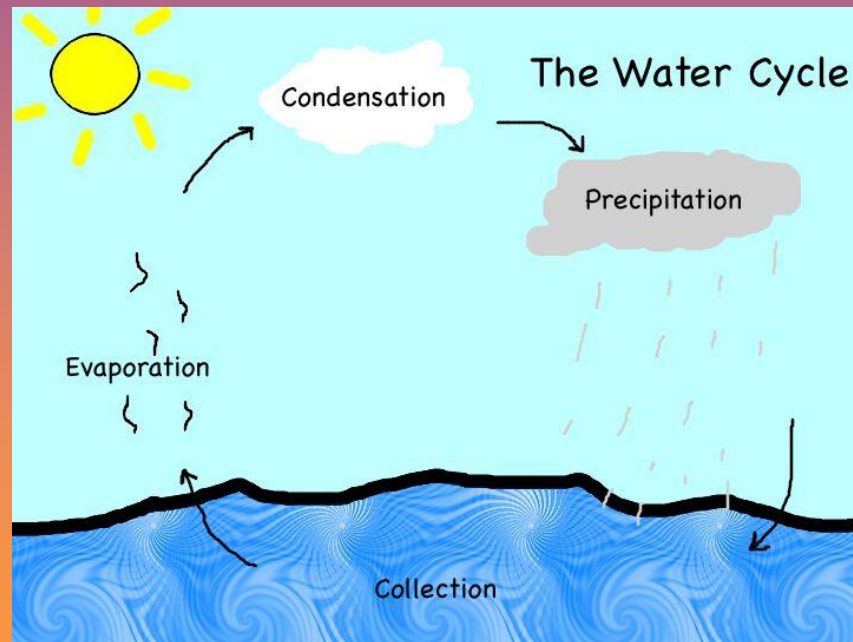
The water cycle



THE WATER CYCLE

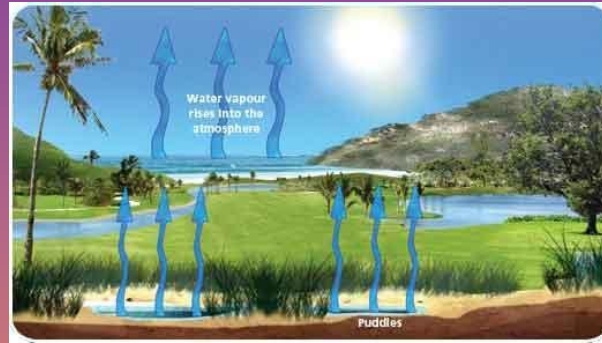
This cycle is made up of these processes:

- evaporation (and transpiration)
- condensation
- precipitation
- collection



Evaporation:

Evaporation is when the sun heats up water in rivers or lakes or the ocean and turns it into vapor or steam.



Condensation:

Water vapor in the air gets cold and changes back into liquid, forming clouds.



Precipitation:

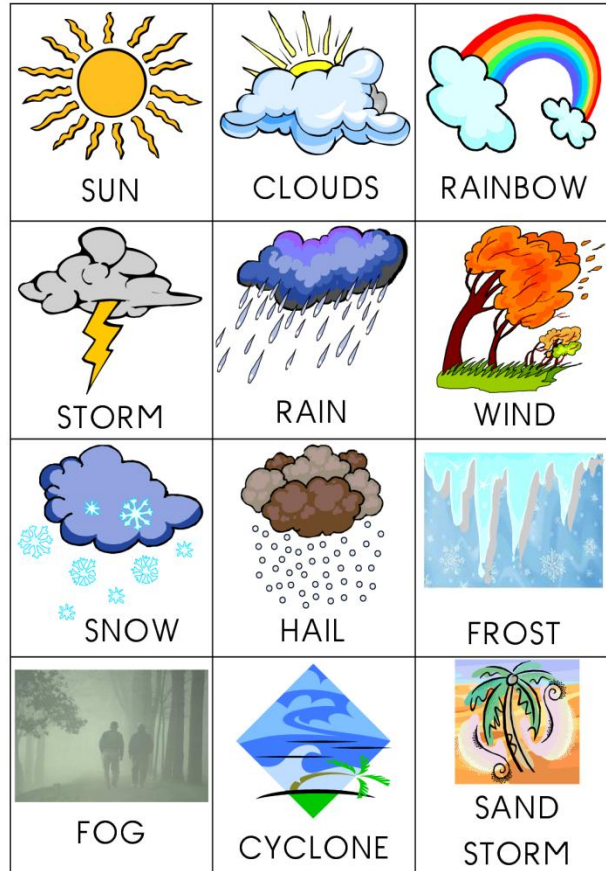
Precipitation occurs when the clouds get heavy and water falls back to the earth in the form of rain, hail or snow.



Collection:

When water falls back to earth as precipitation, it may fall back in the oceans, lakes or rivers or it may end up on land.

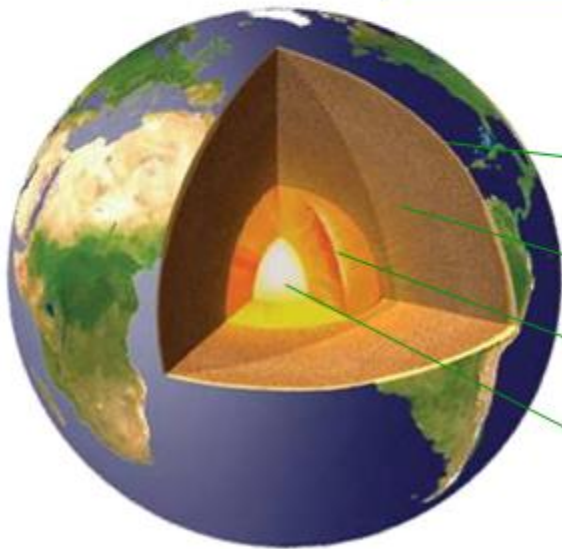
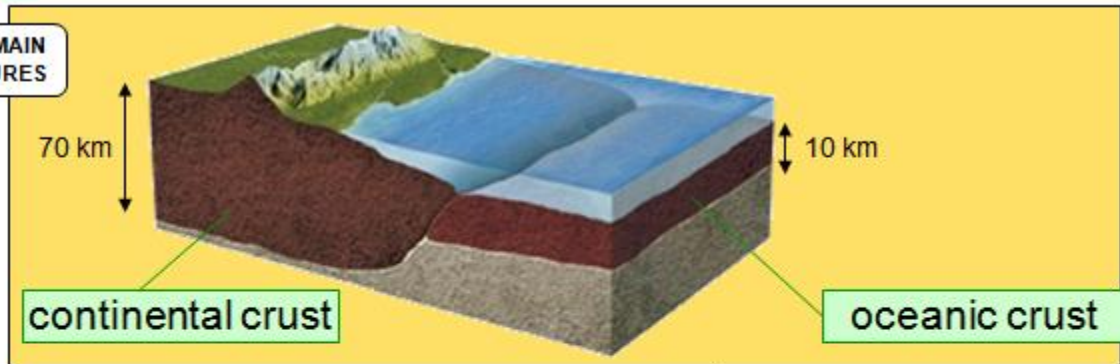
The weather in English



THE THREE LAYERS OF THE EARTH



The geosphere

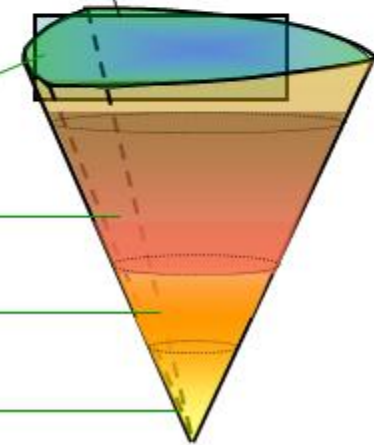


crust

mantle

outer core

inner core



THE LAYERS OF THE GEOSPHERE

CRUST : the rigid, rocky outer surface of the Earth

MANTLE : a rocky layer located under the crust

CORE : is the centre of the Earth

OUTER CORE - the molten iron-nickel layer that surrounds the inner core.

INNER CORE - the solid iron-nickel center of the Earth that is very hot and under great pressure.