

YEAR 7 TERM 3: THE EARTH

Key Words

Recycling - The process of collecting and processing materials that have been used so that the materials can be used again.

Sedimentary Rock - Rocks formed from the accumulation and compression of sediment, such as sand or mud, over time.

Igneous Rock - Rocks formed from the cooling and solidification of molten lava or magma.

Metamorphic Rock - Rocks that result from the alteration of existing rocks due to heat, pressure, or mineral activity.

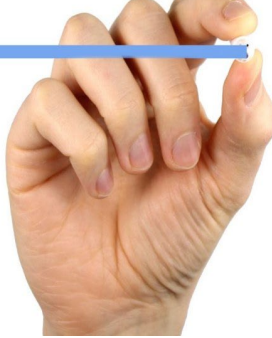
Troposphere - The lowest layer of the Earth's atmosphere, where weather events occur, and it contains the air we breathe.

Photosynthesis - The process by which green plants and some other organisms use sunlight to synthesize food from carbon dioxide and water.

Condensation - The process by which a gas or vapor changes into a liquid state, often forming clouds in the atmosphere.

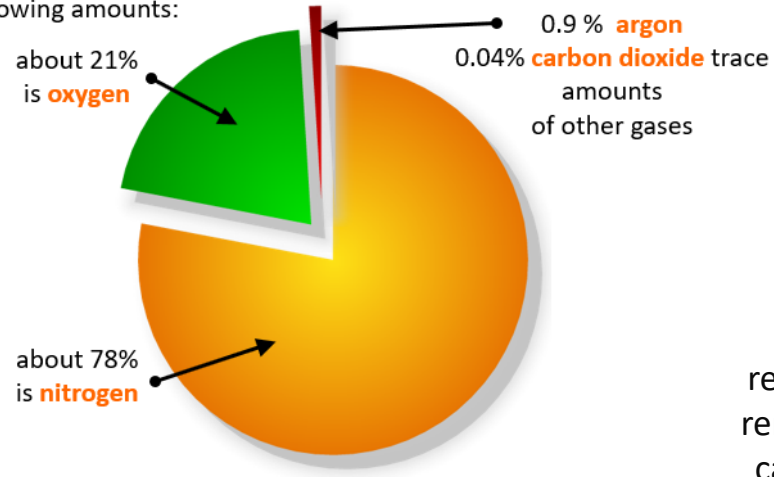
Evaporation - The process by which a liquid, such as water, transforms into a gas or vapor, usually due to heat.

KEYWORDS



THE EARTH'S ATMOSPHERE

The gases that make up the atmosphere are present in the following amounts:



Scan the QR code with your mobile phone to access a 5 minute video on the water and carbon cycle

THE CARBON CYCLE

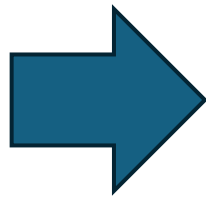
Carbon is put into the atmosphere by combustion and respiration. Photosynthesis and dissolving into the oceans removes carbon from the atmosphere. Marine animals use carbon for their shells. When they die they can over time form into sedimentary rock or fossil fuels which can be burnt releasing carbon back into the atmosphere.

keyfacts

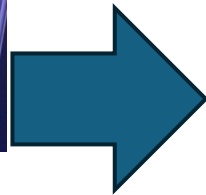
- The Earth's **early atmosphere** is believed to be formed by **volcanic activity**.
- It probably was composed of **high levels of carbon dioxide**. There may also have been **nitrogen** and **water vapour** and probably **trace amounts of ammonia** and **methane**.
- As **photosynthesising organisms spread** across the earth **oxygen levels increased** in the atmosphere.

WATER CYCLE

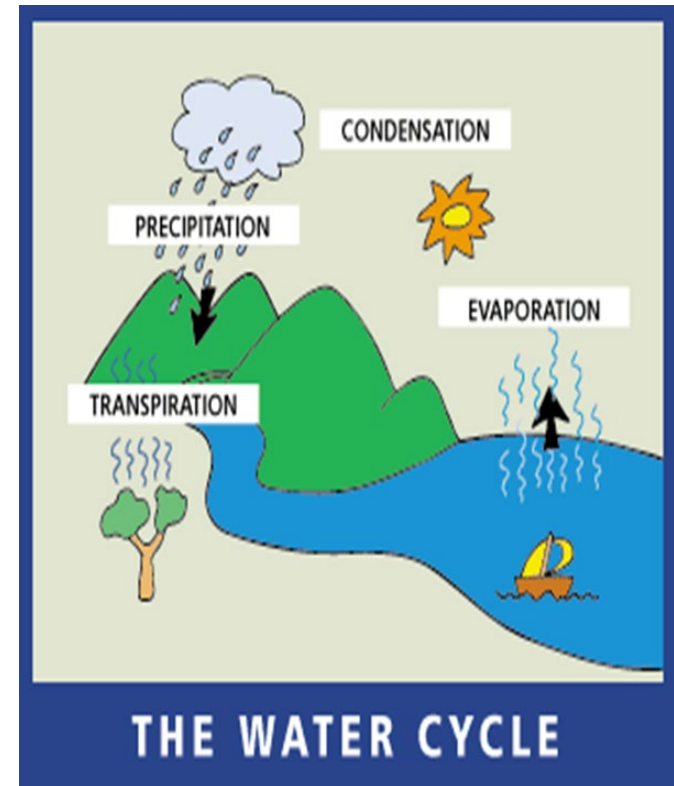
Evaporation is when liquid water turns into water vapour gas without boiling. This happens you leave your wet washing out to dry.



Condensation is when water vapour gas cools down and turns into liquid water.



Precipitation is any product of the condensation of atmospheric water vapor that falls from clouds due to gravitational pull.

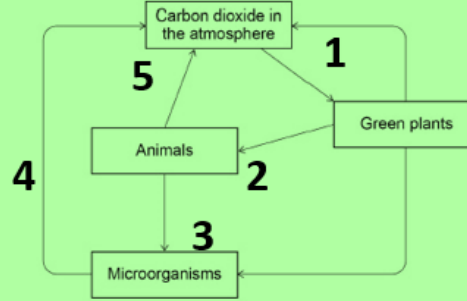


PRACTICE KNOWLEDGE QUIZ QUESTIONS

1. What was formed from the water vapour in the Earth's early atmosphere?
2. How can countries reduce carbon dioxide emissions?
3. Give two effects of climate change.
4. Create a table to show the advantages and disadvantages of recycling
5. What are ores?
6. Give examples of greenhouse gases.

(c) Plants take in carbon dioxide from the atmosphere.

The diagram shows part of the carbon cycle.



Describe how carbon from the atmosphere is cycled through living organisms.

Each of the numbers on the diagram represent a process that you need to write about.

When answering this question, you need to look at the process that plants use to make food, what eats the plants and what happens when organisms die. You also need to mention the other process plants and animals both do to increase carbon dioxide levels. Each of the numbers on the diagram represent a process that you need to write about.

1. Carbon dioxide is used in the process of to make
2. Plants are by animals which use compounds to make
3. When plants and animals they are de..... by
4. Microorganisms which releases back into the ...
5. Animals which releases into back into the

Keywords:

Respiration

Photosynthesis

Decompose

Carbon

Microorganisms

This question is about gases in the Earth's atmosphere.

- (a) Draw **one** line from each gas to the approximate percentage of the gas in the Earth's atmosphere today.

Gas	Approximate percentage of gas in the Earth's atmosphere today
	<1
	5
Carbon dioxide	10
Nitrogen	20
	50
Oxygen	80
	>90

This question is about the atmospheres of Earth and Mars.

- (a) What was formed from the water vapour in the Earth's early atmosphere?

Tick (✓) **one** box.

Crude oil

☐

Limestone

☐

Natural gas

☐

Oceans

☐