

Review 1

Combined Science - Chemistry - Key Stage 4

C9 - Chemistry of the Atmosphere

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Make flash cards for the key definitions I am about to bring up on the screen.



Key Definitions 1

- **Atmosphere** - the layers of gases that surround the Earth.
- **Fossil fuel** - coal, oil and natural gas formed from marine organisms.
- **Finite** - a resource that is limited in supply, it is formed slower than it is used.
- **Greenhouse gas** - a gas that absorbs heat energy in the atmosphere.
- **Greenhouse effect** - the process by which greenhouse gases absorb heat energy causing the Earth's temperature to rise.
- **Climate change** - a change to the average global temperature of the Earth.



Key Definitions 2

- **Carbon footprint** - the total amount of carbon dioxide (and other greenhouse gases) which are emitted.
- **Combustion** - burning a fuel in oxygen.
- **Incomplete combustion** - when a fuel burns in a limited supply of oxygen.
- **Complete combustion** - when a fuel burns in a plentiful supply of oxygen.
- **Atmospheric pollutant** - a substance that pollutes (negatively effects) the atmosphere.
- **Global dimming** - decrease in solar radiation reaching the Earth's surface.



Greenhouse effect

Atmospheric pollutant

Fossil fuel

Greenhouse gas

Atmosphere

Combustion

Incomplete combustion

Carbon footprint

Global dimming

Finite

Complete combustion

Climate change



Carbon dioxide made up most of the Earth's early atmosphere

TRUE

FALSE



Nitrogen makes up most of the Earth's modern atmosphere

TRUE

FALSE



The development of photosynthesising organisms caused the level of oxygen in the atmosphere to increase.

TRUE

FALSE



Water vapour evaporated to form the Earth's oceans.

TRUE

FALSE



Limestone is made from marine organisms, sand and silt.

TRUE

FALSE



Fossil fuels take 100 years to make.

TRUE

FALSE



Methane is an example of a greenhouse gas

TRUE

FALSE



Short wave infrared radiation is able to pass through the greenhouse layer

TRUE

FALSE



Driving a car has less of a carbon footprint than riding on a bus.

TRUE

FALSE



The pollutant sulfur dioxide can form acid rain.

TRUE

FALSE



Step 1: Topic in the middle
Step 2: Scatter key words
Step 3: Draw lines between keywords
Step 4: Write along the arrow - how are they linked?

Consequences

Causes

Climate Change

Ways to reduce

Greenhouse gases

Key words:	Electricity	Fuel	Combustion	Temperature	Carbon dioxide	Methane
	Drought	Water vapour	Flooding	Extinct	Sea level	Diseases
	Beef and rice farming	Landfill rotting	Recycling	Solar panels		



Extreme weather e.g. **drought** and **flooding**
Ice caps melt and **sea levels** rise
Species become **extinct**
Spread of **diseases** like malaria
Water shortages

Burning **fossil fuel** for generate **electricity**
Beef and rice farming
Landfill rotting
Petrol in cars
Release greenhouse gases

Consequences

Causes

Climate Change

Ways to reduce

Greenhouse gases

Recycling

Turn of lights when not in use
Insulate home

Solar panels

Work instead of car
Holiday in UK
Eat less beef and rice

Methane

Carbon dioxide

Water vapour

Produced by **combustion** of fossil fuels



See you next time.

