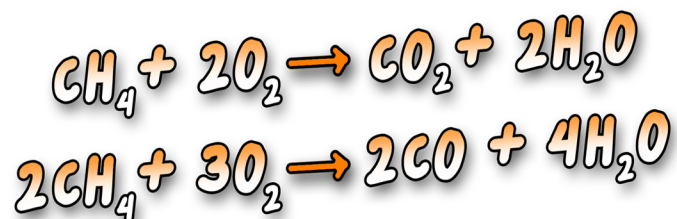
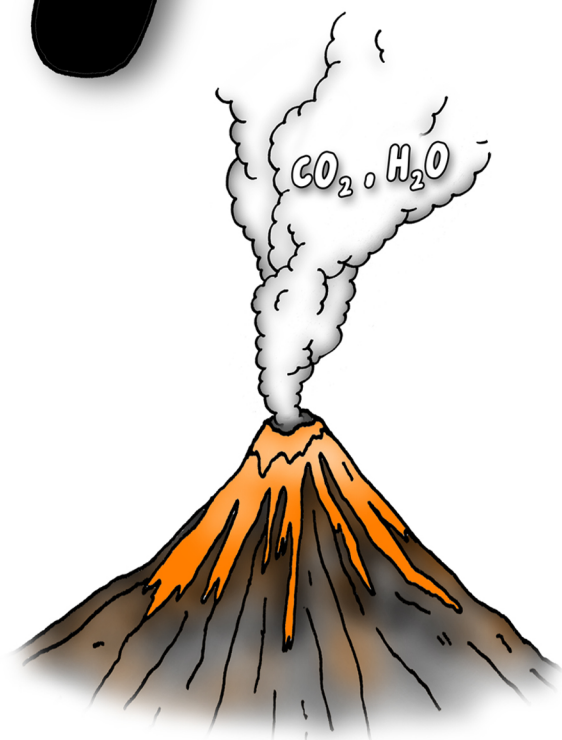


**AQA GCSE**  
**CHEMISTRY OF THE**  
**ATMOSPHERE**  
**THINK IT!**

*Greenhouse Gases*  
**CARBON DIOXIDE**  
**WATER VAPOUR**  
*Methane*



### **The proportion of gases in the atmosphere and the early atmosphere:**

- The Earth's atmosphere is dynamic. Explain what this statement means.
- Describe and explain the similarities and differences between the Earth's early atmosphere and the current atmosphere.

### **Greenhouse gases:**

- Explain the benefits to Earth of the different greenhouse gases.
- Explain why there is a greenhouse effect on Earth.
- Increased greenhouse gas levels in the atmosphere can lead to the acidification of the seas and oceans. Explain why this occurs and the implications of this on biodiversity.

### **Global climate change:**

- Explain in detail what global climate change is.
- Increasing global temperatures have a negative impact on the biodiversity in the polar regions. Explain this statement.
- Explain how global climate change leads to extreme weather conditions.

### **How oxygen increased:**

- Write the balanced symbol equation to show why the amount of oxygen in the atmosphere has increased.
- Explain why the amount of oxygen has increased in the atmosphere and the effects this has had on living things.
- Discuss why the levels of oxygen in the atmosphere are currently relatively stable.

# **AQA GCSE Chemistry of the atmosphere**

## **ThinkIT!**

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### **The carbon footprint and its reduction:**

- Describe your carbon footprint today.
- Explain how you could reduce this carbon footprint and explain why a reduction would occur.
- Many companies state that they are reducing their carbon footprint by using electric vehicles. Evaluate this.

### **How carbon dioxide decreased:**

- Write the balanced symbol equation to show why the amount of carbon dioxide in the atmosphere has decreased.
- Carbon dioxide is naturally captured from the atmosphere through biological, chemical, and physical processes. Explain these processes

### **Human activities that contribute to greenhouse gases:**

- Describe in detail two human activities that increase the amount of carbon dioxide and methane in the atmosphere.
- Why do many scientists agree that there is a greenhouse effect?
- the idea of the greenhouse effect still controversial?

### **Atmospheric pollutants from fuels and their effects:**

- Explain with a balanced symbol equation why burning coal may release sulfur dioxide (SO<sub>2</sub>).
- Explain the implications for humans and other animals of the increases of sulfur dioxide, oxides of nitrogen and particulates in the atmosphere.