Historical sources

More recent climate change can be seen in:

- old photos, drawings and paintings
- written records
- recorded dates of regular events (for example, harvests, arrival of migrating birds).

These records are not very accurate.

Human causes of climate change



Figure 4 The greenhouse effect

Greenhouse gases include carbon dioxide (CO_2) and methane. People adding more and more greenhouse gases to the atmosphere has led to the **enhanced greenhouse effect**. Most scientists believe this is the cause of recent global warming.

Fossil fuels

- Burning fossil fuels releases carbon dioxide into the atmosphere.
- Fossil fuels are used in transport, industry and power stations.
- As population increases and people are becoming wealthier, more energy is used, which means more fossil fuels are burnt.

Agriculture

- Produces large amounts of methane, especially cattle and rice farming.
- As population increases, more food is required, especially in Asia where rice is a main part of the diet.

Deforestation

- Deforestation means there are fewer trees to take in carbon dioxide.
- Forests are carbon stores. When they are burned to clear an area, the carbon dioxide that has been stored is released.

SNAPIT!

Draw your own diagram of the greenhouse

effect. Snap an image of it and use it to remind yourself of how it works. Can you explain how it affects the climate?

> Plan an answer to a question that asks you about how humans have contributed to climate change.



Human and natural causes

Make sure that you understand the difference between **human** and **natural** causes of climate change.