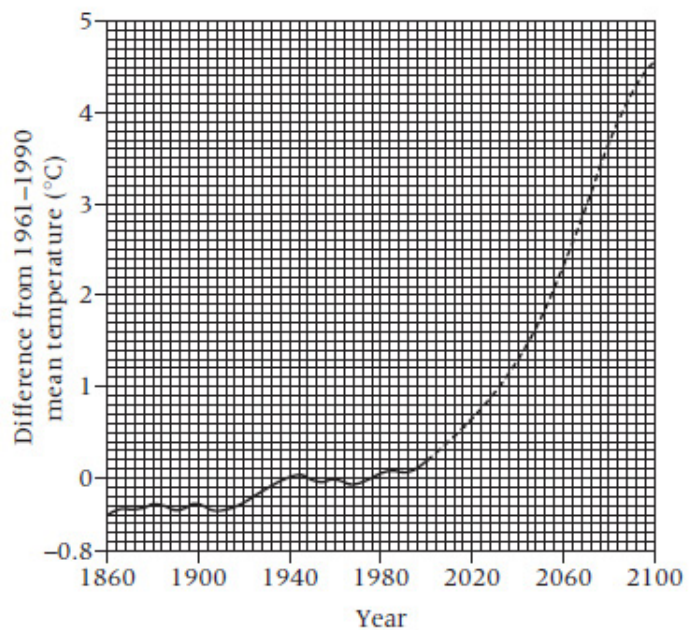
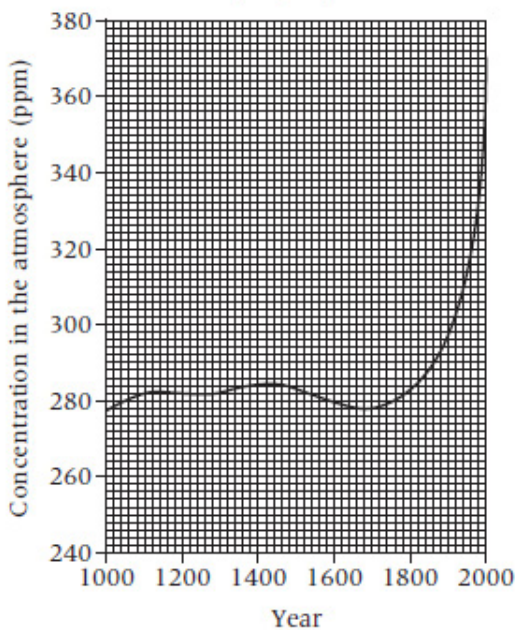


# Global warming – inquiry activity

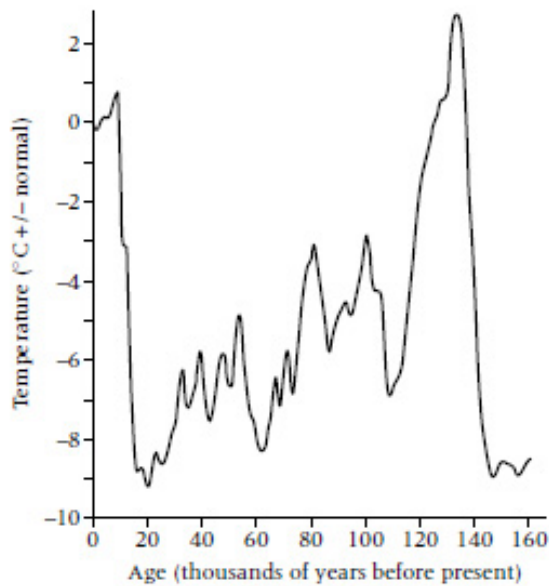
Recently there has been some debate as to whether global warming is real or if we are simply experiencing a warmer phase in the Earth's history.

- ① What is meant by the greenhouse effect?
- ② What are the causes of the greenhouse effect?

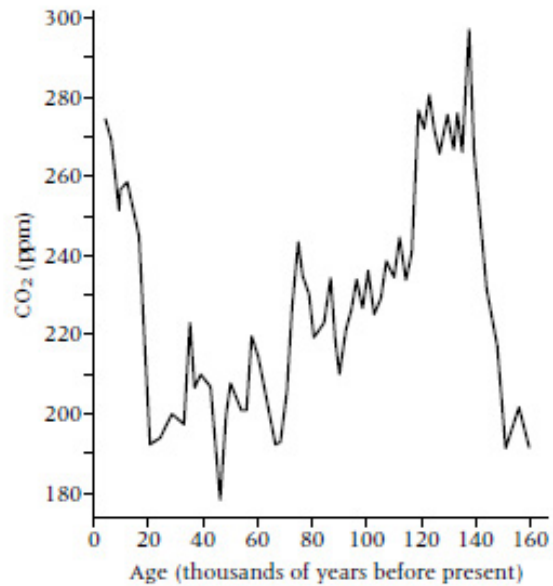


Graph 1 shows how carbon dioxide levels have changed over the past 1000 years. Graph 2 shows the mean temperature of each year compared to the mean temperature for the years 1961 – 1990.

- ③ What year did the carbon dioxide levels start to rise?
- ④ What year did mean temperatures start to rise?
- ⑤ Describe the current trends in carbon dioxide from the year 1000 to the year 2000.
- ⑥ Do you think these graphs provide enough evidence that rising temperatures are caused by rising levels of carbon dioxide. Explain your answer.



Graph 1: Mean world temperatures over the last 160 000 years.



Graph 2: Mean world carbon dioxide levels over the last 160 000 years.

Nowadays glaciers are only found in certain areas of the Earth such as the North and South pole. Millions of years ago, during the ice age these glaciers were found everywhere. Over the last 2 million years there have been 20 glacial advances and then retreats.

- ⑦ Do you think rise in temperatures is caused by carbon dioxide or does carbon dioxide rise because of temperature rise? Use the graphs to help explain your answer.  
 (Hint: pick 2-3 points of comparison)

From the graphs above and any additional research you carry out, decide whether you believe in global warming or not. Present your argument in any way you wish.