

Work Sheet 3: Evidence on Climate Change

Remote Sensing and Environmental Monitoring Entrance

'Parts per million (ppm)' is a unit of concentration. 300 ppm of CO₂ means that 300 in every 1 million air particles are carbon dioxide particles.



We are now at the 'Satellite Remote Sensing Station.' Here we can explore the impacts of global warming both generally around the world and in Hong Kong in particular.

Question 3.1a

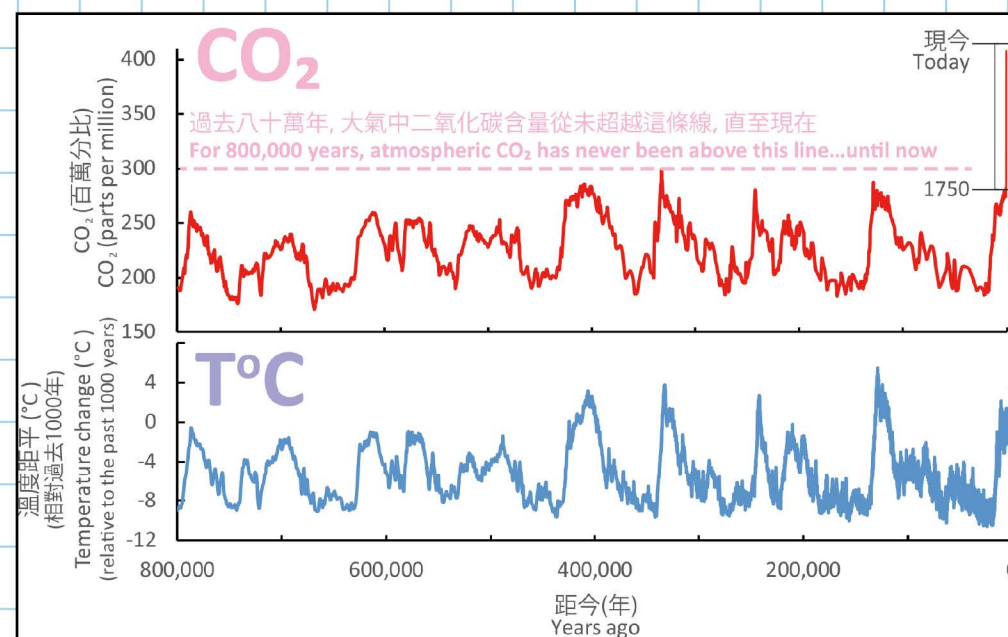
Scientists can often obtain important climatic data from ice cores. For example: During the past 800,000 years, atmospheric carbon dioxide (CO₂) content has not exceeded ___ parts per million (ppm).

- A. 1
- B. 10
- C. 30
- D. 300

Question 3.1b

Currently, atmospheric carbon dioxide (CO₂) content is higher than it has ever been during the past 800,000 years, and has now reached ___ parts per million (ppm).

- A. 1
- B. 300
- C. 400
- D. 4,000



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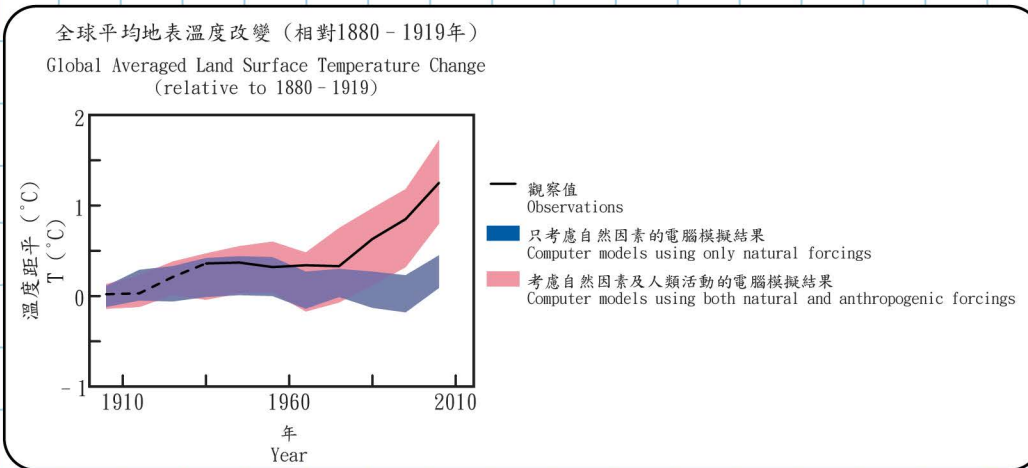
Most scientists agree that humans are responsible for climate change.



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Question 3.2 (Please cross out as appropriate)

Scientists have also been using computer simulations to model the changes in the global average surface temperature. Their models show that the recorded temperature increase in recent decades can only be effectively explained when human activities are / are not considered.



Question 3.3

Scientists use remote sensing and environmental monitoring technologies to collect surface data on climate-related parameters over a specific time range. Let's help our scientists to analyse the data collected from changes in sea ice coverage, sea levels, carbon dioxide concentrations and global temperatures. Study the changes in the past decades and summarize the analytical results in the following table: (select the correct answer from the table)

My observations are...	Sea ice coverage	Sea levels	Carbon dioxide concentrations	Global temperatures
Overall change:	<input type="checkbox"/> expanding <input type="checkbox"/> shrinking	<input type="checkbox"/> rising <input type="checkbox"/> falling	<input type="checkbox"/> increasing <input type="checkbox"/> decreasing	<input type="checkbox"/> rising <input type="checkbox"/> falling