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0	1

This question is about the temperature of the Earth's atmosphere.

1

Give **one** reason why it is difficult to produce models for future climate change.

[1 mark]

any one from:

- complex systems
- many different variables
- many alternative theories

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2

Describe how carbon dioxide helps to maintain temperatures on Earth.

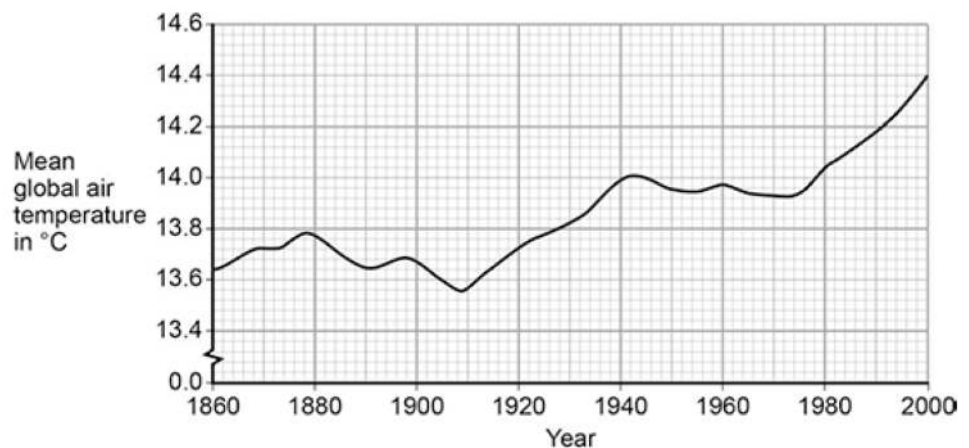
[3 marks]

carbon dioxide allows short wavelength radiation to pass through
allow greenhouse gas(es) for carbon dioxide [1]

the atmosphere to the Earth's surface [1]

carbon dioxide absorbs outgoing long wavelength radiation [1]

The figure below shows the change in mean global air temperature from 1860 to 2000.



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3

Explain how human activities have contributed to the main trend shown from 1910 in the figure above.

[3 marks]

general increase in temperature caused by increase in greenhouse gases [1]

any two human activities correctly linked to a named greenhouse gas [2]
e.g.

- increased burning of fossil fuels causes more carbon dioxide
- deforestation causes more carbon dioxide
- more cattle production causes more methane
- use of landfill causes more methane

(Total 7 marks)

End