

# Climate change

1. Describe evidence that suggests that climate change is occurring globally

(4 marks)

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2. Study Figure 1 that shows an Ice core being collected from the Arctic.

Figure 1



Suggest how ice cores like the one shown in Figure 1 can provide evidence of climate change

(2 marks)

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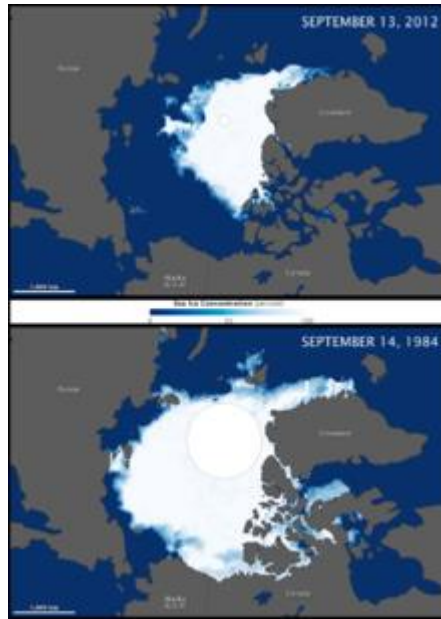
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3. Study Figure 2 showing changes to the extent of the Arctic between September 1984 and September 2012.

Figure 2



Suggest how Figure 2 could show that climate change is occurring

(2 marks)

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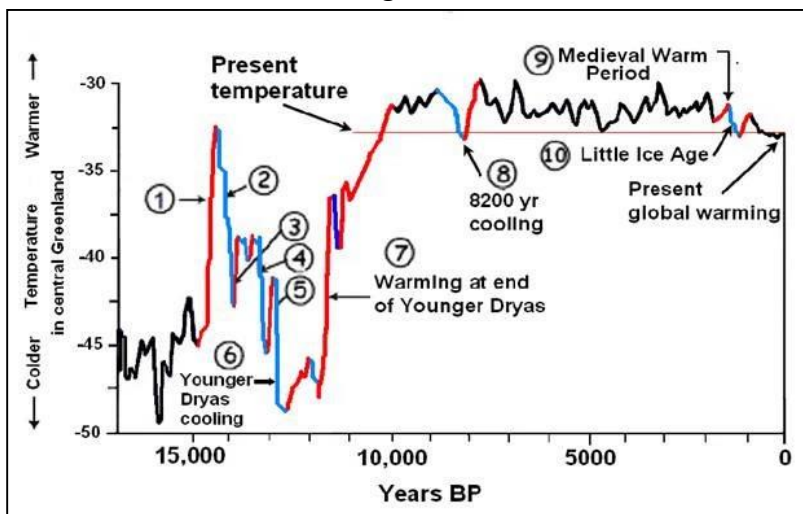
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4. Study Figure 2 that shows the history of changing global temperatures

Figure 2



4. Choose two pieces of evidence from Figure 2 and describe how they indicate that global climate has changed over time. (2x2 marks)

Evidence 1

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Evidence 2

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5. Complete the following sentences using the words from the word bank below: (4 marks)

There are a variety of natural causes of climate change. Orbital changes cause climate change because they affect the amount of \_\_\_\_\_ the earth receives. Solar output is observed by monitoring \_\_\_\_\_ on the sun's surface. Volcanic eruptions contribute to climate change because volcanoes emit \_\_\_\_\_ such as sulphur dioxide which are called greenhouse gases because they help to \_\_\_\_\_ solar radiation in the atmosphere.

**Trap**

**radiation**

**sunspots**

**gases**

6. Study Figure 3 which shows the eruption of Mount Pinatubo in 1991.

Figure 3



6. Explain how the eruption of volcanoes like the one shown in Figure 3 contribute to climate change. (4 marks)

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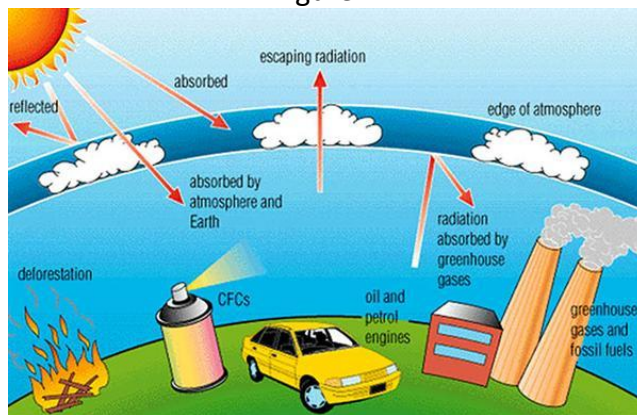
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7. Study Figure 4 showing some human causes of global warming

Figure 4



With reference to Figure 4, choose **two** human causes of climate change and explain how they cause a change in global temperature. (2x2 marks)

Cause 1 \_\_\_\_\_

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Cause 2 \_\_\_\_\_

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11. Using examples, explain how the following strategies can help to manage climate change:

a) Alternative energy production

(2 marks)

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b) Carbon capture

(2 marks)

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c) International agreements

(2 marks)

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12. Explain the benefits of using afforestation to manage climate change

(4 marks)

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13. What does adaptation mean in the context of managing climate change?

(2 marks)

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14. Using examples, explain how the following adaptation strategies can help humans to respond to climate change:

a) Change in agricultural systems

(2 marks)

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b) Managing water supply

(2 marks)

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c) Reducing the risks caused by level rise

(2 marks)

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15. Assess the importance of mitigation compared to adaptation in managing climate change.

(9 marks +3 SPaG)

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