

Worksheet 2.7.4 Understanding global warming

1 What is global warming? >

- a) Work in a pair. Sequence the cards from page 3 of this worksheet correctly to describe how the natural greenhouse effect occurs.

Hint: start your sequence H–D–

Compare your sequence with that of another pair of students. Come to an agreement in your group of four before you write or stick down the final sequence.

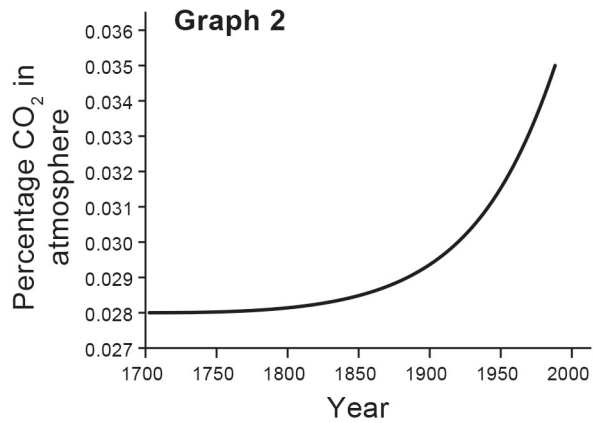
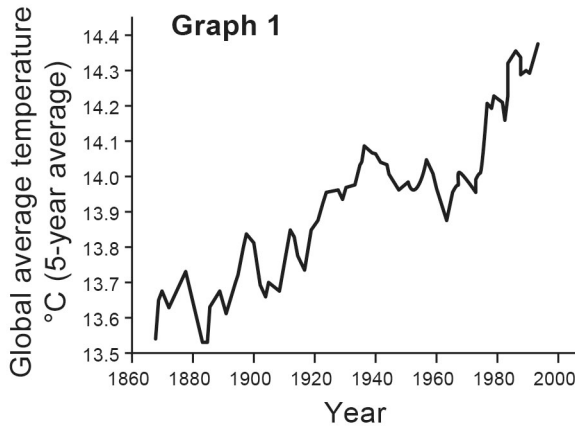
.....

- b) On your own, write a definition of 'global warming'. Compare your definition with your partner's. Agree to a combined, more accurate and complete definition.

.....

2 Is it happening? >>

Work with a partner to complete this task. Use the graphs below to answer the questions.



- a) What does Graph 1 tell you about the trend in global average temperature?

- b) What is the difference between the initial average temperature shown, in the 1860s, and the final average temperature shown, in the 1990s?

- c) What does Graph 2 tell you about the percentage of carbon dioxide in the atmosphere?

- d) Is there a relationship between the two graphs? How could they be connected?

Worksheet 2.7.4 Understanding global warming**3 The debate**

a) Work with a partner to brainstorm, research and complete this task:

Draw up a table, Venn diagram or other form of graphic organiser showing all the arguments for human activities causing global warming, all the arguments against human activities causing global warming, and any facts that both sides of the argument agree on.

b) Work on your own to complete this task:

Complete a piece of extended writing, giving a balanced argument and conclusion, about the cause(s) of global warming. Answer these questions in your writing:

- In your opinion, is global warming an imminent world threat? Why or why not?
- Based on your opinion, what actions do you believe should be taken to address the global warming issue? Support your opinions with specific information from your graphic organiser.

Worksheet 2.7.4 Understanding global warming

- A Radiation from the Earth is absorbed or reflected by the greenhouse gases.
- B The temperature of the Earth remains high.
- C The warm Earth radiates heat energy.
- D Radiation from the Sun passes through the Earth's atmosphere.
- E The radiation cannot escape into space.
- F The Earth's atmosphere traps heat.
- G The Sun's radiation is absorbed by the Earth's surface, heating it.
- H The Earth's atmosphere contains greenhouse gases, which are released by natural processes, for example, carbon dioxide from respiration.