56. Question 1 demonstrates how the 2015 framework largely maps onto the same categories as the 2006 framework, using the same competency and context categorisations. The 2006 framework included two categorisations of scientific knowledge; knowledge of science (referring to knowledge of the natural world across the major fields of science) and knowledge about science (referring to the means and goals of science). The 2015 framework elaborates on these two aspects, subdividing knowledge about science into procedural and epistemic knowledge. Question 1 requires students to understand not only how the data is represented in the two graphs, but also to consider whether this evidence scientifically justifies a given conclusion. This is one of the features of epistemic knowledge in the 2015 framework. The context categorisation is Environmental – global. A new feature of the 2015 framework is consideration of cognitive demand (see figure 23). This question requires an interpretation of graphs involving a few linked steps, and is therefore, using the descriptors from the framework, categorised as medium cognitive demand.

Question 2: GREENHOUSE

Another student, Jeanne, disagrees with André's conclusion. She compares the two graphs and says that some parts of the graphs do not support his conclusion.

Give an example of a part of the graphs that does not support André's conclusion. Explain your answer.

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Figure 8. Framework Categorisation for GREENHOUSE Question 2

Framework categories	2006 Framework	2015 Framework
Knowledge type	Knowledge about science	Epistemic
Competency	Explaining phenomena scientifically	Explaining phenomena scientifically
Context	Environmental, Global	Environmental, Global
Cognitive demand	Not applicable	Medium

57. Question 2 requires students to interrogate the two graphs in detail. The knowledge, competency, context and cognitive demand are in the same categories as question 1.

Question 3: GREENHOUSE

André persists in his conclusion that the average temperature rise of the Earth's atmosphere is caused by the increase in the carbon dioxide emission. But Jeanne thinks that his conclusion is premature. She says: "Before accepting this conclusion you must be sure that other factors that could influence the greenhouse effect are constant".

Name one of the factors that
Jeanne means.

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