

## ACT Preparation- Greenhouse Gases



1. Give an example of a greenhouse gas.
2. What does the author of the research say that greenhouse gases do to the Earth's climate?
3. Study the Key for figure 1. This graph shows both \_\_\_\_\_ and \_\_\_\_\_ for \_\_\_\_\_ thousand years.
4. What quantities are shown on the vertical axis on the left of the graph?
5. What quantities are shown on the vertical axis on the right of the graph?
6. What does "ppb" stand for? The number of \_\_\_\_\_ of CH<sub>4</sub> per \_\_\_\_\_ of parts of the atmosphere.
7. What was the concentration of solar radiation 150,000 years ago? \_\_\_\_\_ (Include a number and a unit)
8. What was the concentration of methane gas 150,000 years ago? \_\_\_\_\_ ( Include a number and a unit)
9. About 160 thousand years ago, the lines for solar radiation and CH<sub>4</sub> concentration seem to overlap. Does this mean that they had equal concentrations? \_\_\_\_\_ Explain your answer.
10. According to figure 1, do solar radiation and methane concentration seem to be directly or inversely proportional? \_\_\_\_\_ Explain your answer.
11. If the concentration of CH<sub>4</sub> is related to the temperature of Earth, can you conclude that the temperature of Earth for the past 250 thousand years has been steady or fluctuating? \_\_\_\_\_ Explain your answer.
12. How is the time period for Figure 2 different from Figure 1?

13. According to figure 2, what seemed to start happening about 5,000 years ago?
  
14. If the correlation between CH<sub>4</sub> and Earth's temperature is true, what can you conclude about the Earth temperature for the past 5 thousand years?
  
15. You have learned in science class, and from your own personal observations, that the energy from the sun warms the earth. But what is the assumption that is made about the temperature of the earth in this passage?
  
16. Do either of these graphs show the temperature of the earth?
  
17. What hypothesis is supposedly supported by the data in figure 2?
  
18. You have learned that science should be testable and repeatable. Is the data in this passage testable or repeatable? Explain your answer.