

Chapter 16

STUDY GUIDE

Text Pages 470-475

● How Can Global Warming Be Slowed?

Match the words in Column I with the phrases in Column II. Write the letter of the correct phrase in the blank on the left.

Column I

- _____ 1. fossil fuels
- _____ 2. deforestation
- _____ 3. burning
- _____ 4. plants
- _____ 5. giant screen
- _____ 6. nitrous oxide

Column II

- a. remove carbon dioxide from atmosphere
- b. possible way to reduce global warming
- c. mass removal of trees
- d. adds carbon dioxide to atmosphere
- e. gas that contributes to global warming
- f. petroleum, natural gas, and coal

Answer the following questions on the lines provided.

7. What are some of the ways that people can reduce their use of fossil fuels? _____

8. What are examples of reasons why forests are being cleared in different parts of the world?

9. How can planting vegetation help reduce global warming? _____

10. Why have some scientists suggested that billions of aluminum balloons should be released into the atmosphere? _____

Chapter 16**ENRICHMENT**

Text Pages 470-475

● How Can Global Warming Be Slowed?

Greenhouse Gases

Many scientists think that the increase in greenhouse gases began in the nineteenth century after the Industrial Revolution. The burning of fossil fuels and trees has raised the levels of carbon dioxide in the atmosphere by 25 percent since 1860. During the 1980s, the world's nonindustrialized nations accounted for only 20 percent of carbon dioxide emissions. Among the industrialized nations, the United States led with 26 percent, followed by the Soviet Union with 21 percent, Western Europe with 17 percent, China with 11 percent, and Japan with 5 percent.

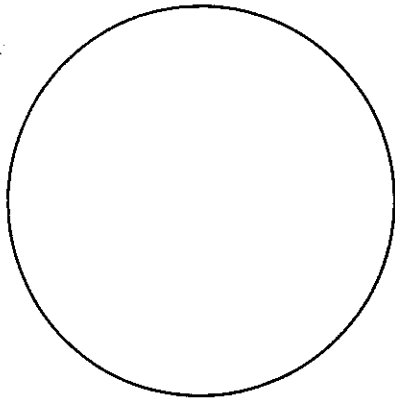
Amounts of other greenhouse gases increased, too. Methane is produced when dead things decay. It comes from feed lots, swamps, garbage,

mining, and petroleum production. Although it is not as abundant as carbon dioxide, it is much more effective as a heat-trapping gas. Nitrous oxide is released whenever nitrogen-based fertilizers are used. Chlorofluorocarbons, as you know from Chapter 14, are human-made gases that are even more effective than methane for trapping heat.

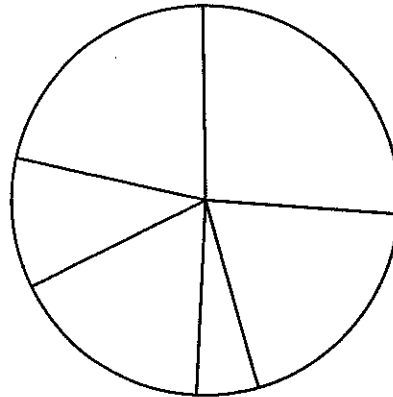
During the 1980s, more than half of the gases added to the atmosphere came from the production and use of fossil fuels for energy. Other industrial uses added 3 percent. Changes in land use such as burning forests contributed 9 percent, and agricultural practices accounted for 14 percent. Activities using chlorofluorocarbons added 17 percent.

Draw and label two pie graphs in the circles below. The information in the above paragraphs will give you the percentages you need. Then answer the question.

Contributions to greenhouse gases in the 1980s by human activity



Contributions to greenhouse gases in the 1980s by nations



Upon which nations will the burden of reducing emissions of greenhouse gases fall and why?
