

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Period: \_\_\_\_\_

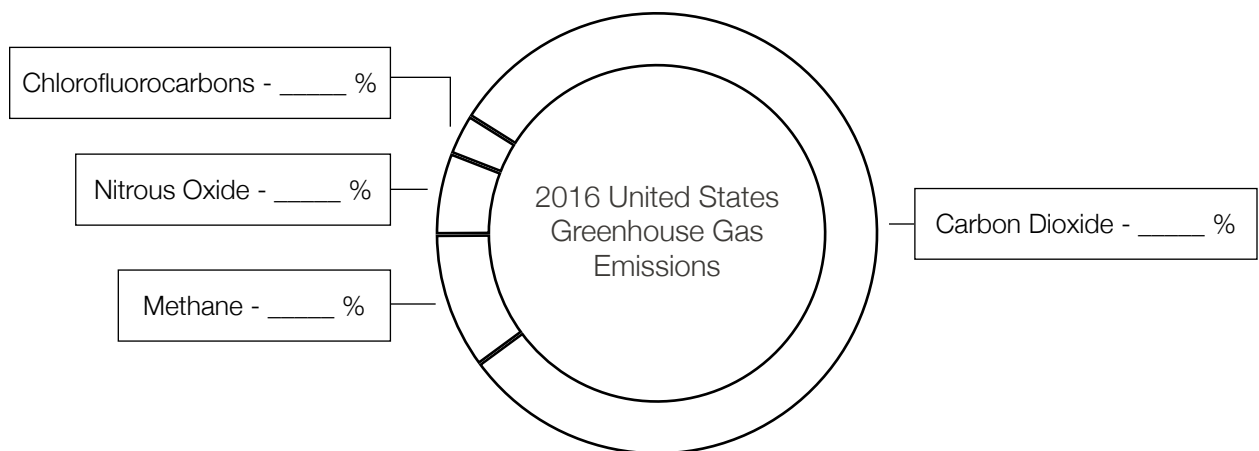
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## Packet: Climate Change

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### CLASS NOTES

- Climate Change - \_\_\_\_\_  
\_\_\_\_\_
- Global Warming - \_\_\_\_\_  
\_\_\_\_\_
- Greenhouse Effect - \_\_\_\_\_  
\_\_\_\_\_
- Green House Gases:



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- Contributing Factors:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

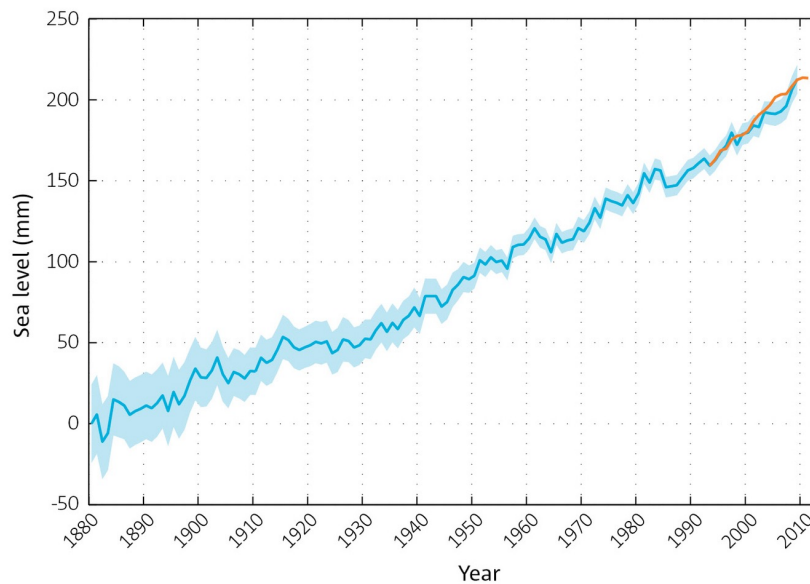
- Potential Effects:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

- 90% of the US population lives within \_\_\_\_\_ miles of the ocean and if sea level were to rise these areas would be inundated with water

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Global Sea Level Rise [mm]



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## PART I QUESTIONS: MULTIPLE CHOICE

1. Which greenhouse gas has increased in Earth's atmosphere partly as a result of deforestation?
  - a. ozone
  - b. oxygen
  - c. nitrogen
  - d. carbon dioxide
2. Most scientists infer that a major factor in the increased rate of melting of Earth's glaciers is
  - a. a decrease in the output of energy from the Sun
  - b. a decrease in Earth's atmospheric transparency
  - c. an increase in Earth's orbital distance from the Sun
  - d. an increase in carbon dioxide in Earth's atmosphere
3. Which list contains three major greenhouse gases found in Earth's atmosphere?
  - a. carbon dioxide, methane, and nitrous oxide
  - b. carbon dioxide, oxygen, and nitrogen
  - c. hydrogen, oxygen, and methane
  - d. hydrogen, water vapor, and nitrogen
4. Most scientists infer that increasing levels of carbon dioxide in Earth's atmosphere are contributing to
  - a. decreased thickness of the troposphere
  - b. depletion of ozone
  - c. increased absorption of ultraviolet radiation
  - d. increased global temperatures
5. Global warming is most likely occurring due to an increase in
  - a. carbon dioxide and methane gases in the atmosphere
  - b. oxygen and nitrogen gases in the atmosphere
  - c. ultraviolet radiation and x rays reflected from Earth
  - d. visible light and radio waves reflected from Earth
6. In addition to carbon dioxide, two other major greenhouse gases in Earth's atmosphere are
  - a. oxygen and nitrogen
  - b. oxygen and methane
  - c. water vapor and nitrogen
  - d. chlorofluorocarbons and methane
7. Which gas in Earth's upper atmosphere absorbs large amounts of ultraviolet radiation?
  - a. water vapor
  - b. methane
  - c. nitrogen
  - d. ozone

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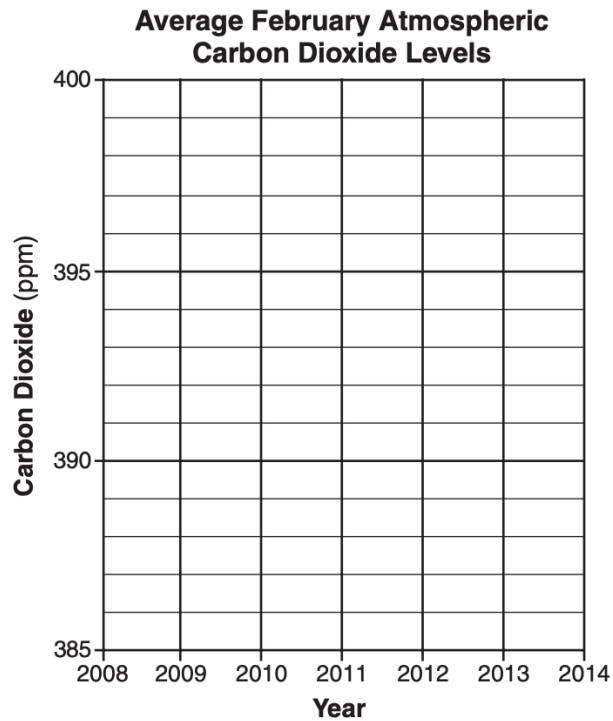
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## PART II QUESTIONS: FREE RESPONSE

Base your answers to questions 8 through 10 on the data table below and on your knowledge of Earth science. The data table shows the average level of atmospheric carbon dioxide [CO<sub>2</sub>], measured in parts per million [ppm], for the month of February at the Mauna Loa observatory in Hawaii from 2008 to 2014.

Year	Average February Atmospheric CO <sub>2</sub> Levels (ppm)
2008	386
2009	387
2010	390
2011	392
2012	394
2013	396
2014	398



8. On the grid above, construct a line graph by plotting the data for the average February atmospheric carbon dioxide [CO<sub>2</sub>] levels for the years 2008 to 2014. Connect the plots with a line.
  
9. These measurements of atmospheric carbon dioxide were collected at an altitude of 3.4 kilometers. Identify the temperature zone of the atmosphere where these data were collected.
  
10. Describe two human activities that would decrease the amount of CO<sub>2</sub> in Earth's atmosphere.