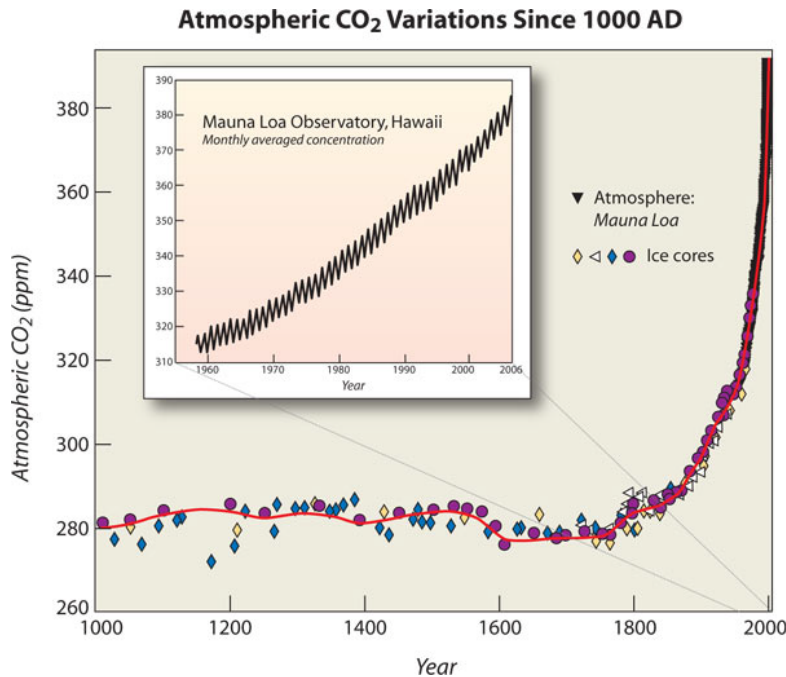


Name _____ Period _____ Date _____

Carbon Dioxide: Trends and Oscillations

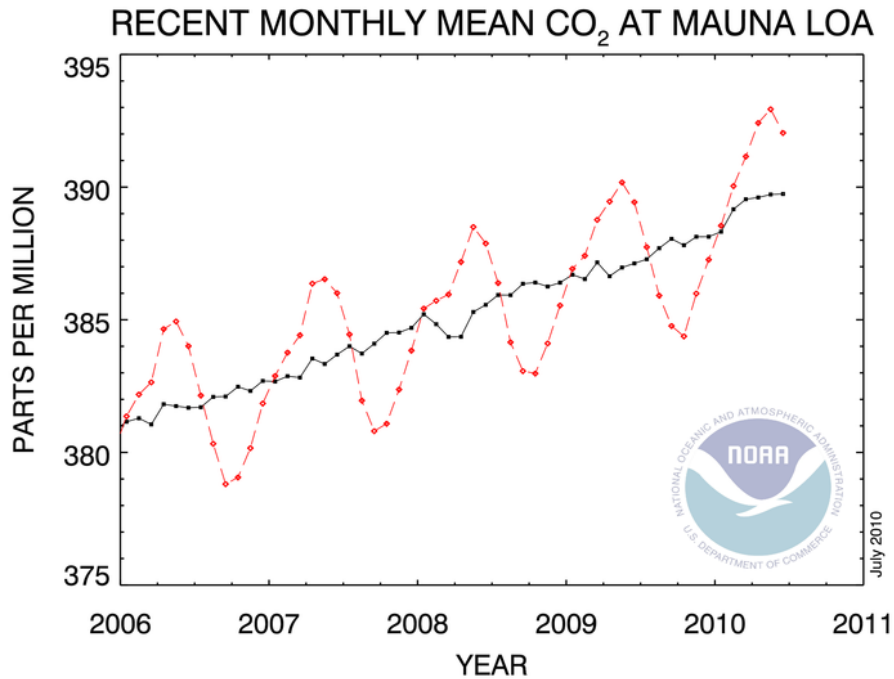
Carbon dioxide is in the news almost every day... and it is rarely good news. Let's take a look at measurement data for carbon dioxide and link it to what you know from the news and from biology.

The graphs below show the measurement data for carbon dioxide levels in the atmosphere over 1000 years ending in the year 2000 and 50 years ending in the year 2006.



1. What has been the general trend in the atmospheric CO₂ level during this time period?
2. Briefly describe the concern regarding this change in the carbon dioxide level in the atmosphere. (Why is carbon dioxide in the news so often?)
3. List two sources of atmospheric carbon dioxide.
4. In addition to an overall or general trend, there is a pattern within the general trend. Describe that pattern.

The graph below is focused on a small segment of the data shown in the graph on the front of this page. Atmospheric carbon dioxide levels are measured each month. The data points on the dotted line on the graph represent the monthly measurements.



5. Describe the pattern of the data observed for the year 2007.
6. Which other years follow a similar pattern?
7. Approximately when during each year does the carbon dioxide level begin to decrease?
8. Write a hypothesis regarding the reason for this decrease.
9. Based on your hypothesis, propose a method to possibly help control the increasing carbon dioxide levels and explain why this would help.
10. What type of models do the graphs in this activity represent?