Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Per \_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_

**Graphing Quaternary CO2 Data**

By Vicky Jordan

Data from Vostok ice cores, EPICA Dome C ice cores, and Mauna Loa Observatory

**Objectives**:

1. Graph the level of carbon dioxide over a 10,000 year period of time.

2. Combine your graph with graphs made by other students in order to build an historical record from 800,000 years ago to the present as a timeline in the hallway.

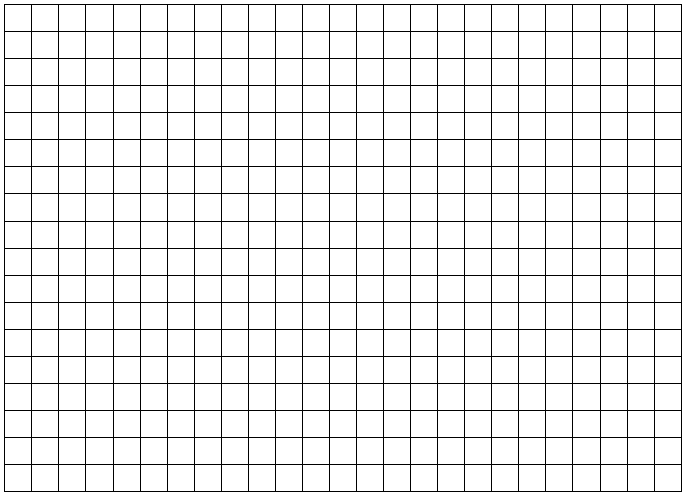
3. Evaluate the data looking for trends and anomalies (things that don’t fit the pattern.)

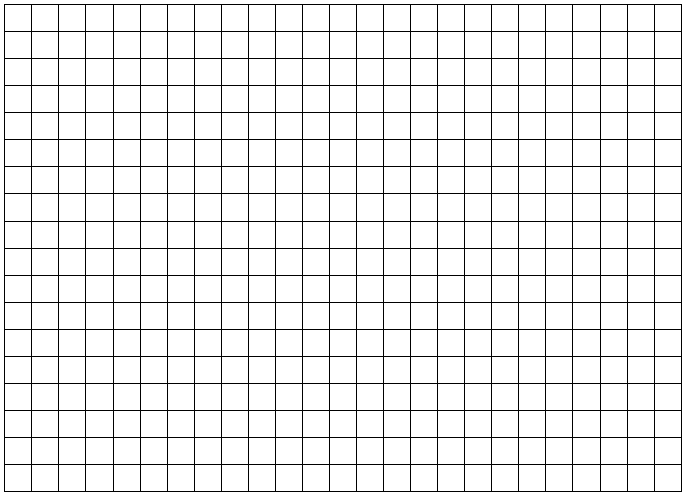
4. Identify ice ages by looking at the hallway graph.

5. Use the “infographics” to make inferences about other time periods where similar events may have occurred.

**Procedure** (check them off the list as you proceed.)

* Obtain a data set from the teacher.
* What type of graph should you be making? *Circle the correct choice*: BAR LINE PIE
* Graph the data using the grid on the other side of this page. To insure consistency for the hallway graph, turn the grid to a landscape orientation (sideways, the way this page is while you are reading it right now.) Use a 10 ppmv increment on the Y axis, and a 400 year increment on the X axis. Add a title to your graph that includes what the graph is showing, and make sure the years assigned to you are included in your title.
* Be sure your axes are labeled correctly.
* If you are assigned to work with a partner, find a way to trade off with the pencil so both of you are engaged in writing and helping each other be accurate.
* If your data set included a picture with a caption, cut out the picture with the caption. Find a blank spot on your graph where you can tape the picture and caption and not cover up any of the graph data points or line.
* When the teacher tells you to, go into the hallway and figure out where your graph should be placed.





\_\_\_\_\_\_600

\_\_\_\_\_\_200

\_\_\_\_\_\_800

\_\_\_\_\_\_400

\_\_\_\_\_\_000

\_\_\_\_\_\_000

**Years before present**

330

210

200

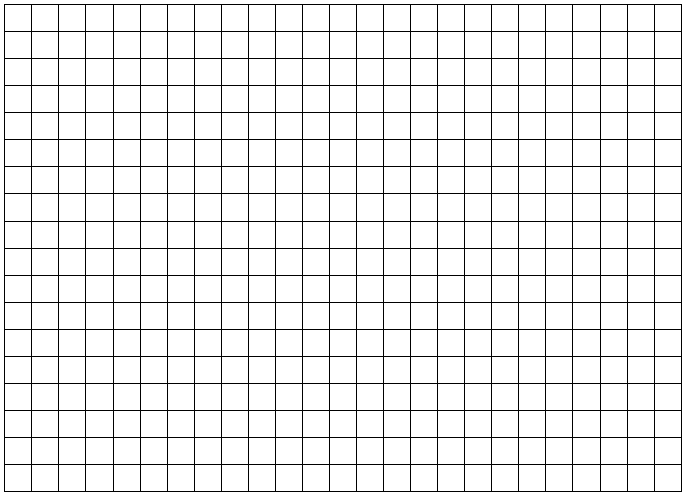
190

180

170

Title:

Carbon dioxide concentration in the atmosphere (ppmv)



\_\_\_\_\_\_400

\_\_\_\_\_\_800

\_\_\_\_\_\_000

\_\_\_\_\_\_200

\_\_\_\_\_\_600

\_\_\_\_\_\_400

\_\_\_\_\_\_800

\_\_\_\_\_\_000

\_\_\_\_\_\_200

\_\_\_\_\_\_600

\_\_\_\_\_\_400

\_\_\_\_\_\_800

\_\_\_\_\_\_000

\_\_\_\_\_\_200

\_\_\_\_\_\_600

\_\_\_\_\_\_400

\_\_\_\_\_\_800

\_\_\_\_\_\_000

\_\_\_\_\_\_200

\_\_\_\_\_\_600

\_\_\_\_\_\_400

\_\_\_\_\_\_800

\_\_\_\_\_\_000

\_\_\_\_\_\_200

\_\_\_\_\_\_600

\_\_\_\_\_\_000

**Years before present**

330

320

310

300

290

280

270

260

250

240

230

220

210

200

190

180

170

Title:

Carbon dioxide concentration in the atmosphere (ppmv)