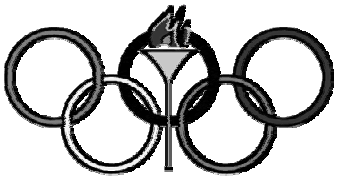
Name_____



Olympic Bar Graphs

Background Information:

Why we use bar graphs in science:

A bar graph is a visual display used to **compare** amounts or how often an event occurs.

Bar graphs let us compare groups of data and make **generalizations** about the data.

They help us see **differences** in data.

Bar graphs also let us find the value of one variable when we know the value of the other.

The scale of the graph is very important. The same data can be plotted on different scales and not look like the same data at all.

To make a bar graph:

- The independent variable is plotted on the X-axis.
- The dependent variable is plotted on the Y-axis.
- Decide on an appropriate scale for each axis.
- Label each axis:
  - Put the specific and general independent variables on the X-axis
  - Put the dependent variable and the unit of measurement on the Y-axis
- Plot your data.
- Title your graph with a descriptive title (ex. A comparison of…)

What to do:

1. Pick a sport or event from the summer Olympic Games.
2. Use the following website to find data for your event: http://www.athens2004.com/athens2004/
3. Collect data about the scores of the medal winners (points, times, distance, speed….) in a table:

Medal	Score

4. Plot the data on a bar graph.
    a. Put the medals on the X-axis
    b. Put the time, distance, speed (whatever was measured in your event) on the Y-axis.
5. Label both of the axes.
6. Give your graph a title that describes comparison you are making with the data.
7. Analyze your data.
    a. What is the independent variable? _____
    b. The dependent variable? _____
8. What differences can we see with this graph?

    _____

9. What are we comparing with this graph?

    _____

10. List at least three other types of data from the Summer Olympics that could be shown with a bar graph: (*Extra credit: make one of these graphs on your own!)*
    a. _____
    b. _____
    c. _____

Title _____