Science Graphs

Graphs are way to display information. Graphs tell a story. Graphs usually include information that explain amounts, size, or speed. Amounts include

The tally sheet below is a way to record and report information. The information being gathered and reported on this tally sheet is the scores students earned on a test.

Test Scores

Interval	Tally	Frequency
90-100	THA HAL	10
80-89	111	3
70-79	th <u>k</u>	5
60-69	11	2
Below 60	j	1

The column marked interval tells the grouping or range of data. In this case, the data is being recorded according to the range of scores. Students who got a score of 90 or higher are recorded in the first row. Students with a score between 80 and 89 are recorded in the second row, etc.

In the column marked tally, the person recording the data makes a mark in the appropriate box for each piece of data they record.

When this is finished, the number of tally marks in each interval are added and the total is written in the column marked frequency. The **frequency** is the number of occurrences for each interval or the number of times something happened. For example, the frequency of 10 in the first row tells that 10

http://earthobservatory.nasa.gov/Experiments/Biome/graphindex.php

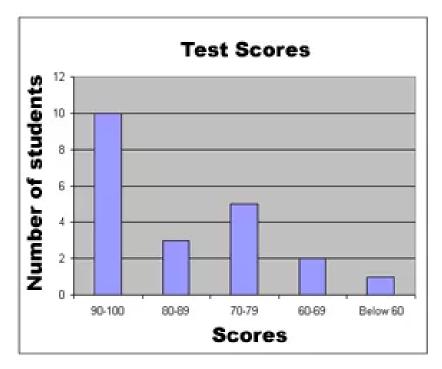


students got a score of 90-100.

After the frequencies are figured out, people often want a nice way to show the data. Graphing is one way to do this. It's another way to tell the story about how students did on the test. There are many types of graphs.

The type of graph that is used depends on the data and which graph will show the information best.

One type of graph is a **bar graph**. This is a bar graph of the test score data from our frequency table:



The bar graph above is telling the same information as the tally sheet above. A bar graph is useful for reporting the amount of things that are similar and in the same group. The students in the Test Scores graph all took the same test but some got different scores.

A line graph is similar to a bar graph except that it describes how something changes over time, like the temperature from one day to the next. Line graphs are also useful for reporting how much rain falls on a certain place over a period of time.

Go to <u>this site</u> and click the 'For Beginners' link. (At the bottom of the page below 'Enter Mission.) Choose the correct answer for the name of the place that is described by the graphs of rainfall and temperature over a year.

http://earthobservatory.nasa.gov/Experiments/Biome/graphindex.php



Then write an explanation for each choice. Use the links on the right of the page on the web site for more information about each of the places. Use specific information from the graphs and the information links to explain your answer.

Label each answer with the name of the city. For instance:

Koombooloomba, Australia (Rain Forest)

I know these graphs describe Koombooloomba, Australia (Rain Forest) because

http://earthobservatory.nasa.gov/Experiments/Biome/graphindex.php

