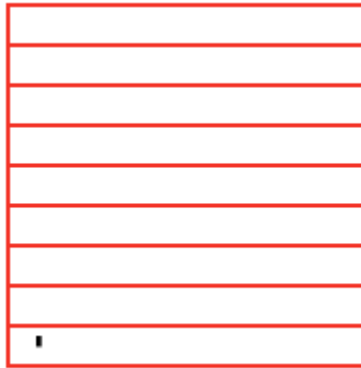# Examples of Graphs

LINE GRAPHS

A line graph is most useful in displaying data or information that changes continuously over time. The example below shows the changes in the temperature over a week in January. Notice that the title of the graph is "Average Daily Temperature for January 1-7 in degrees Fahrenheit".

To the left is a table that shows the date in one column and the corresponding temperature in the second column. The line graph on the right shows the degrees of temperature going up the vertical axis (up and down numbers on the left of the graph) and the days of the week on the horizontal axis (going sideways from left to right). The points for the temperature for each day are connected by a line - thus the graph is a line graph.

Average Daily Temperature for January 1-7 in Degrees Fahrenheit

Date	Temperature
1	10
2	25
3	30
4	42
5	23
6	25
7	40
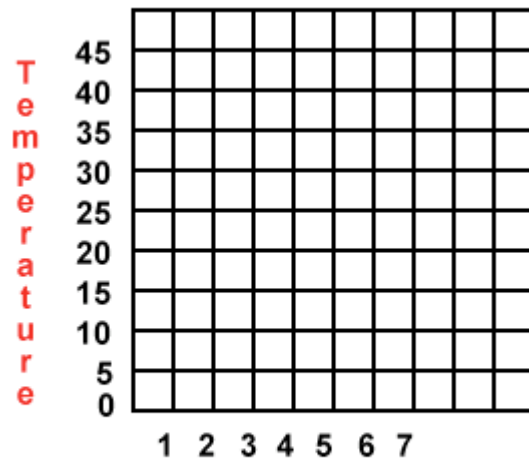
**Average Daily Temperature for January 1-7 in Degrees Fahrenheit**
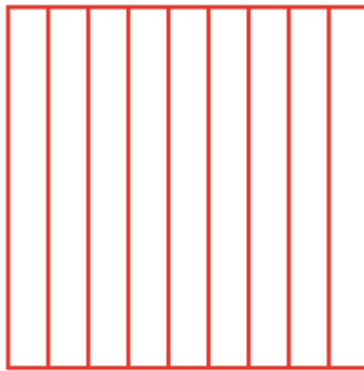
BAR GRAPHS

Bar graphs are an excellent way to show results that are one time, that aren't continuous - especially samplings such as surveys, inventories, etc. Below is a typical survey asking students about their favorite after school activity. Notice that in this graph each column is labeled - it is also possible to label the category to the left of the bar. In this case, the numbers for each category are across the bottom of the chart.

A bar chart is marked off with a series of lines called grid lines. These lines typically mark off a numerical point in the series of numbers on the axis or line. In this case, each grid line going up and down marks a multiple of 20 as the graph is divided. More gridlines can make it easier to be exact with the amounts being shown on the bar graph, but too many can make it confusing. Notice that for data that does not fall evenly on a multiple of 20, the bar is in between two grid lines. Bar graphs are useful to get an overall idea of trends in responses - which categories get many versus few responses.

Favorite Student After School Activity

Activity	Number
Visit W/Friends	175
Talk on Phone	168
Play Sports	120
Earn Money	120
Use Computers	65
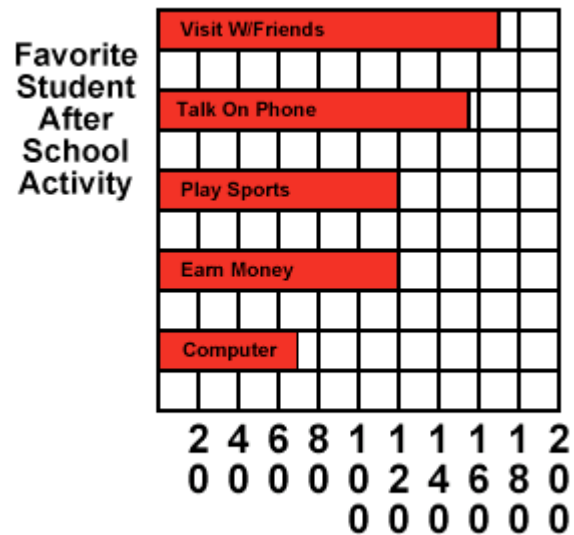
CIRCLE/PIE GRAPHS

Circle or pie graphs are particularly good illustrations when considering how many parts of a whole are inception. In the table below both the number of hours in a whole day devoted to certain activities is listed as well as the percent of time for each of these activities. The pie chart is then divided very much as a baker's pie would be into slices that represent the proportional amounts of time spent on each activity.

To the right of the pie chart is a legend that tells which color stands for which category. In addition, the percents are also near the pie slice that stands for that particular amount of time spent.

Percent of Hours of a Day Spent on Activities

ACTIVITY	HOURS	PERCENT OF DAY
Sleep	6	25
School	6	25
Job	4	17
Entertainment	4	17
Meals	2	8
Homework	2	8

Percent of Hours of a Day Spent on Activities

ENTERTAINMENT 17%
SLEEP 25%
MEALS 8%
HOMEWORK 8%
JOB 17%
SCHOOL 25%

Legend:
- SLEEP
- SCHOOL
- JOB
- HOMEWORK
- MEALS
- ENTERTAINMENT