

Bar Graphs

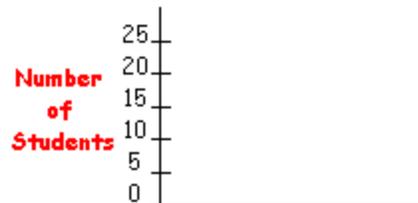
Bar graphs are graphical data representations based on frequency. The bar graph is a visual display used to compare the amount or frequency of occurrence of different characteristics of data. Bar graphs are used to graph frequencies or amounts of data in discrete groups. In other word, bar graphs compare measurements of different values and give us a lot of information quickly!

Histograms are a type of bar graph. The feature, which distinguishes a histogram from a bar graph, is that each bar on a histogram represents a range of data, where each bar on a bar graph represents a specific category.

Parts of a Bar Graph

1. *Title of Graph*: The title gives an overview of the information presented in the graph. The title is written at the top of the graph.
2. *Axes and their labels*: Each graph has two axes. The labels tell us the information presented on each axis.
 - One axis represents grouped data (determines the specific groups) The grouped data axis is always at the base of the bars. This axis displays the type of data being graphed.
 - The other axis represents the amounts or frequency of data groups. The frequency axis has a scale that is a measure of the frequency or amounts of the different data groups.

3. *Axes Scale*: The scale is the range of values being presented along the frequency axis. Decide the scale your bar graph will have. The scale is determined by the biggest and the smallest numbers in your data set. Label the scale on your graph.



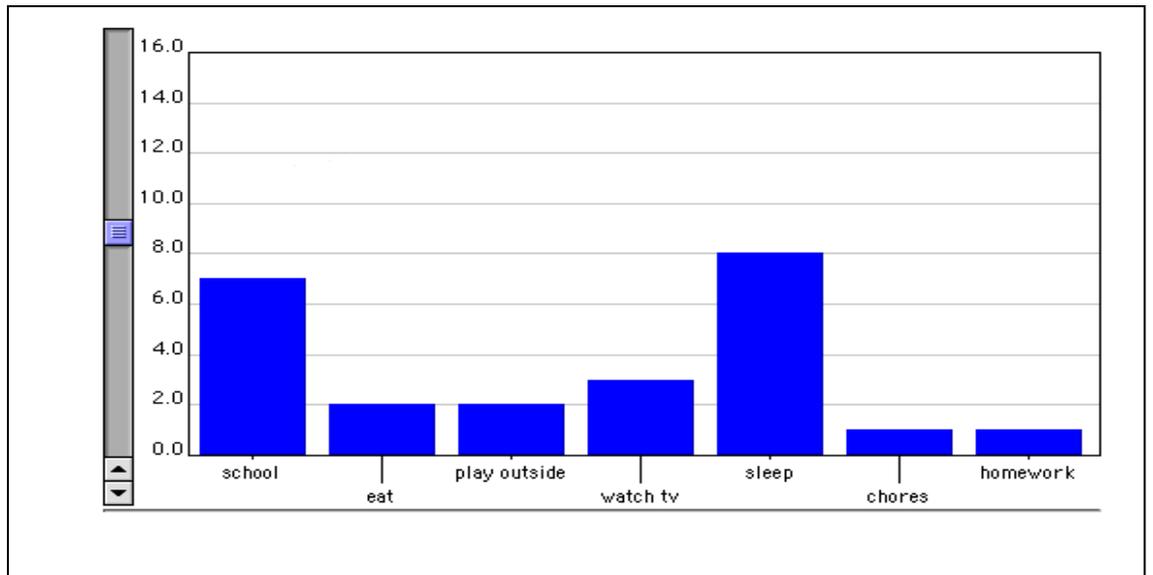
4. *Bars*: The bars on the graph are rectangular blocks that can have their base at either the vertical axis or horizontal axis. The rectangular bars have lengths proportional to the values that they represent. Each bar represents the data for one of the data groups. Draw the rectangles the right length to represent the data. Pick a good width for the data bars. Color coding can make a graph easier to read.

The height of the bars are particularly important since they give us information about specific data. The bars can be horizontally or vertically oriented.

Bar graphs are an excellent way to show results that aren't continuous - especially samplings such as surveys, inventories, etc. Bar graphs are often used for comparing two or more values or groups of data.

My 24 Hour Day

Hours



Ways I Spent Time

Graph from Shodor <http://www.shodor.org/interactivate/activities/barGraph/>

<http://illuminations.nctm.org/ActivityDetail.aspx?id=63> (another great site)