

DATA HANDLING

What Is Data?

Data is information.

An example:

In my fifth grade class we took a pizza lovers survey.

We learned that ten kids liked pepperoni pizza best.

Nine kids liked sausage pizza best.

Seven kids liked cheese pizza best.

This information is called **DATA**.

What Is Data?

Your report card is another example of data.

Math: 88%

Reading: 94%

Science: 75%

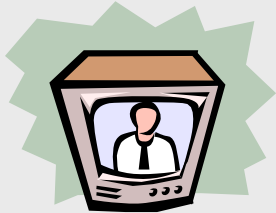
Social Studies: 80%

Language Arts: 55%



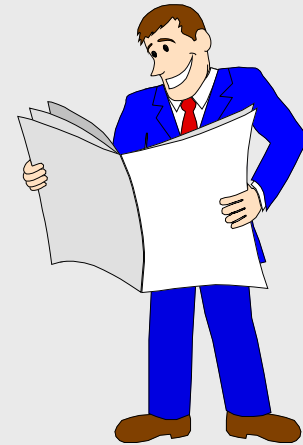
My Language Arts teacher may not like me.

Data Is Everywhere.



TV

Newspaper



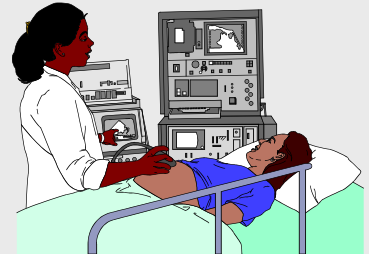
Books



There is way too
much data in
school!

How Do People Use Data?

The data from the test will help us cure your disease.

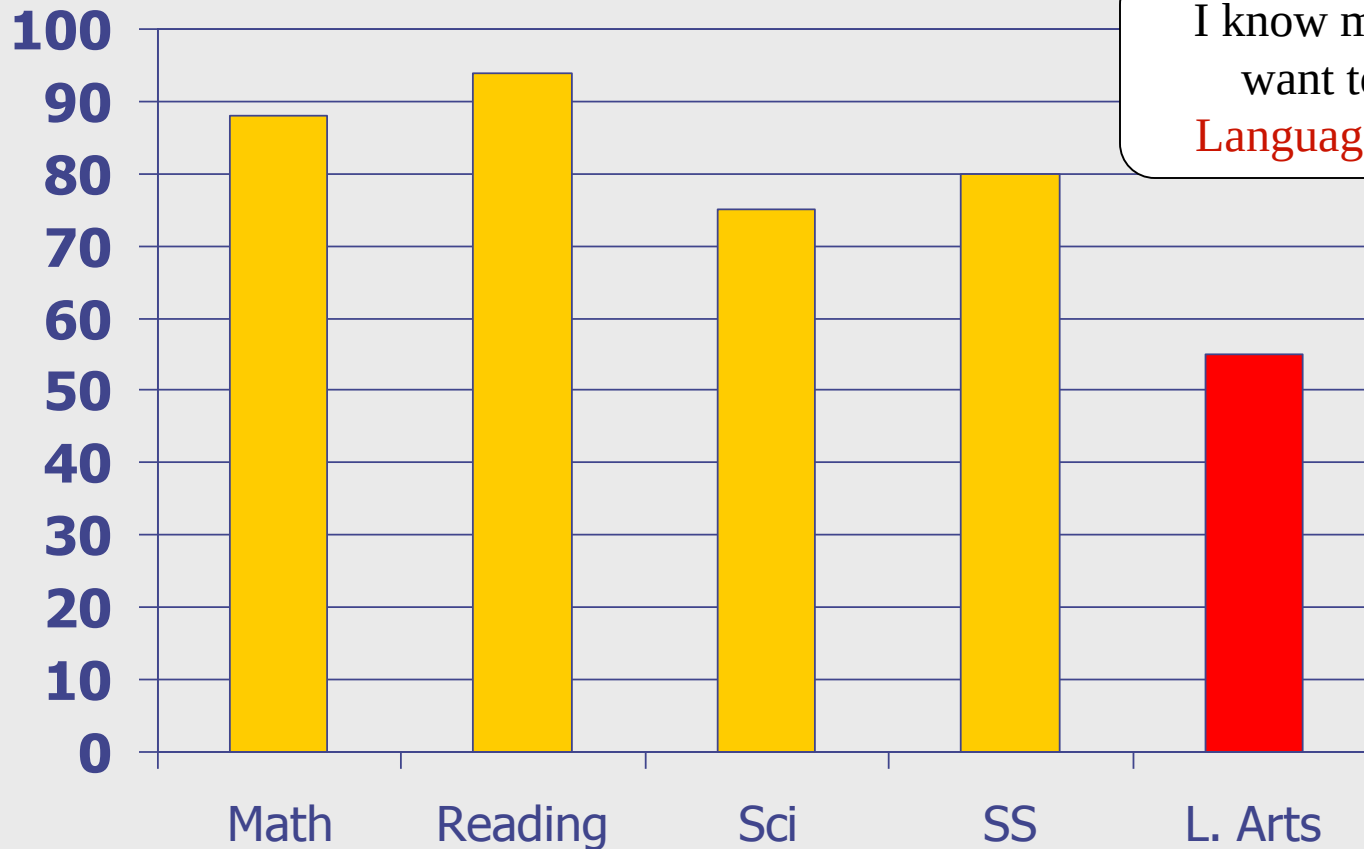


We use data to make money.

Data is needed to build things.



We Use Graphs to Organize Data.



I know my parents will
want to talk to my
Language Arts teacher.

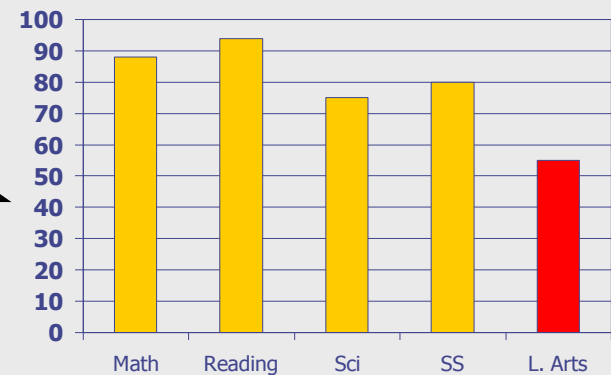
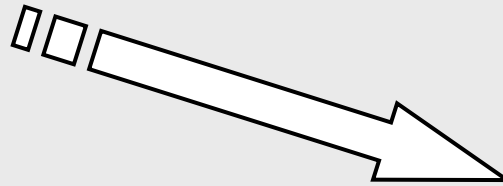


Let's Learn About Graphs.

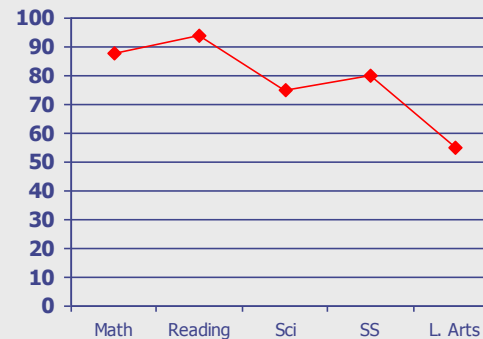
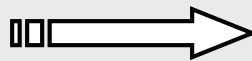
There are many different types of graphs.

Let's learn about two kinds.

1. The bar graph



2. The line graph



GRAPHS

Parts of a graph

- There are a few elements common to any graph.

Data Range

- The graph is a pictorial interpretation of data. Generally, you will create a spreadsheet that holds or generates some type of data, then use the graph to illustrate the data. When you define a graph, you will need some way to explain the data being depicted. You can always select the data you want from a spreadsheet range.

X and Y axes

- As you may remember, the X axis is the horizontal border of the chart. The Y axis is the vertical border. Most spreadsheet programs try to guess what data you want plotted as the X axis and what data you want as the Y axis. If the graph looks completely wrong, you might want to look for some kind of feature that allows you to change the X - Y orientation.

Labels

There will usually be an option for setting or changing the labels on a graph. This will allow you to put informative labels on the graph to make it easier to read. At the minimum, you should label the X and Y axes.

Graph type

You have the option to select/change the type of graph that is displayed. The chart type should be chosen carefully and is dependent on the data to be displayed.

GRAPHS

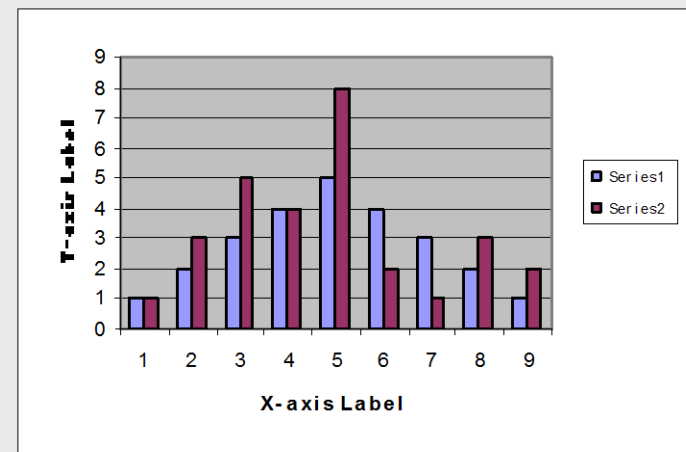
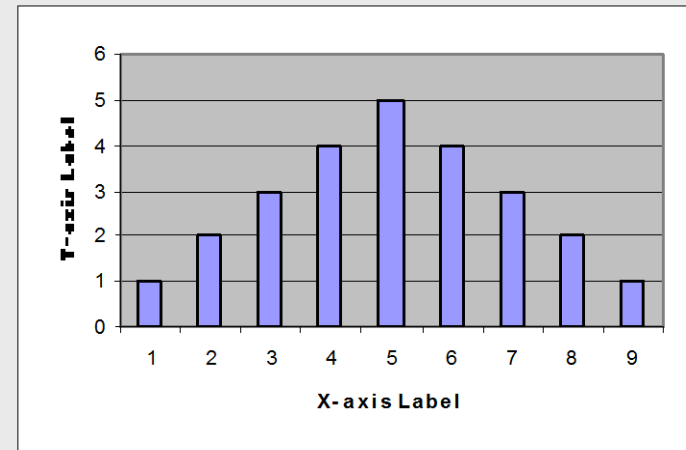
•Charts

- Used as a data analysis tool. Graphical representations of data are easier to interpret than numbers.
- Used as a presentation tool for the same reason.

•Chart Types

•Column/Bar

- Data represented as vertical columns or horizontal bars that run from 0 to the value of the datum.
- The height of a column corresponds to the magnitude of the datum.
- Data values are on the y-axis for a column chart and the x-axis in a bar chart. Opposite axis contains data labels only.
- You may chart multiple data series in a single chart for comparison purposes.



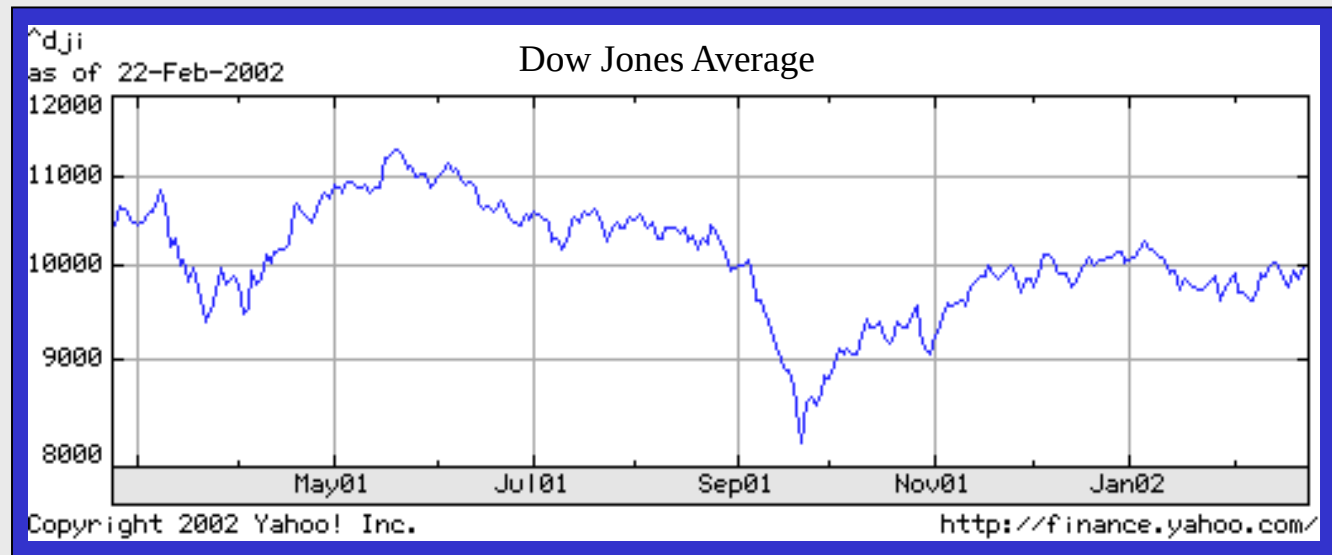
GRAPHS

- Chart Types

- Line

- Data values are on the y-axis. X-axis contains data labels only.

- Best used for showing a trend over a given period of time.



GRAPHS

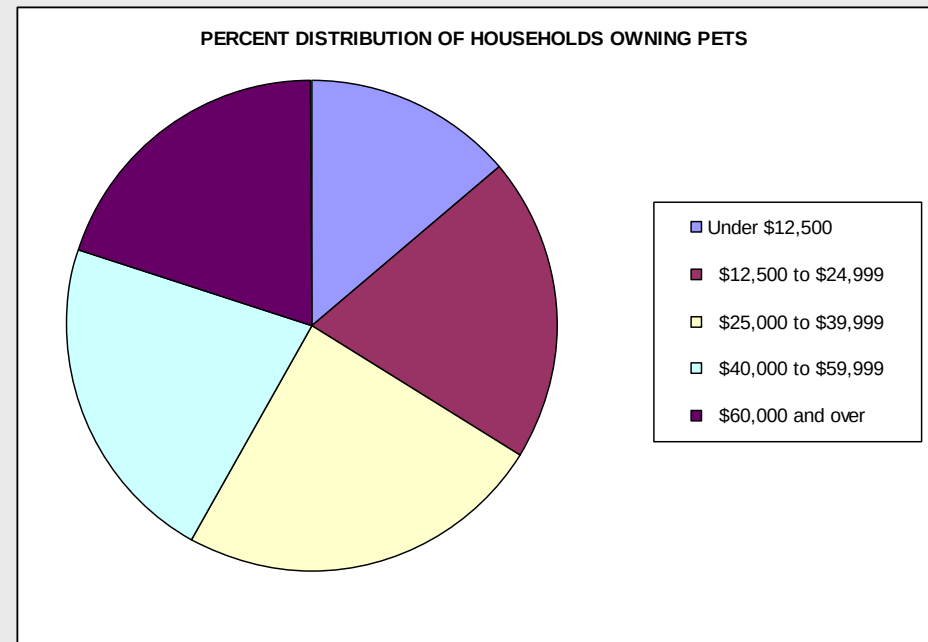
- **Chart Types**

- **Pie**

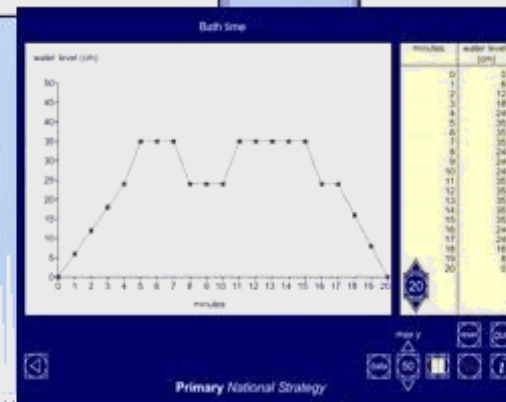
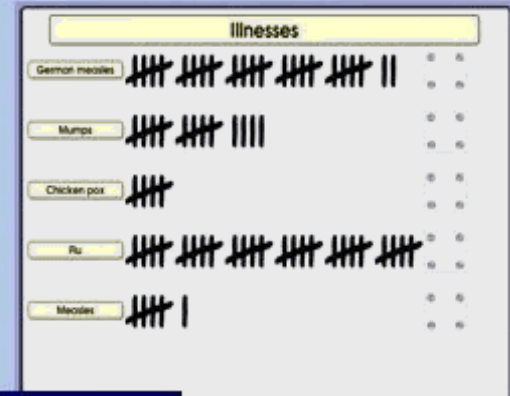
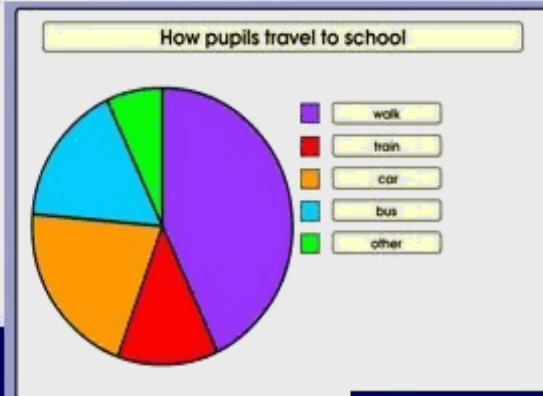
- Data represented as an area in a circle expressed as a percentage of a whole.

- Number of categories should be kept to a minimum (<10).

- “Other” category should represent a small percentage (if used).



Data Handling



CONCEPT MAP

