Introduction to Graphing Activity

Tables are used to organize exact amounts of data and to display numerical information. Tables do not show visual comparisons. As a result, tables take longer to read and understand. It is more difficult to examine overall trends and make comparisons with tables, than it is with graphs.

Line graphs are used to display data or information that changes continuously over time. Line graphs allow us to see overall trends such as an increase or decrease in data over time.

Bar graphs are used to compare facts. The bars provide a visual display for comparing quantities in different categories or groups. Bar graphs help us to see relationships quickly. However, bar graphs can be difficult to read accurately. A change in the scale in a bar graph may alter one's visual perception of the data.

Circle Graphs are used to compare the parts of a whole. Circle graphs represent data visually in the same proportion as the numerical data in a table: The area of each sector in a circle graph is in the same proportion to the whole circle as each item is to the total value in the table. You must first find each part of the whole through several calculations and then use a protractor to draw each angle. Circle graphs are best used for displaying data when there are no more than five or six sectors, and when the values of each sector are different. Otherwise they can be difficult to read and understand.


You Try It:

First, find a partner. With your partner, decide on a trend that you would like to explore graphically.

Examples of trends:
- Baseball stats
- Economic status of countries
- Life expectancy
- SAT Scores

Our trend: ______________________________________________________

What you’ll do: You are going to create three kinds of graphs. Your data should fall into a set of 3 related but distinct sets. Be sure the data you select is appropriate for the type of graph you are creating.

Examples of data sets: Baseball stats:

1) Number of homeruns vs. batter weight
2) average age of manager vs. record
3) number of strikeouts vs. handedness of pitchers

Create your graphs in the space provided on the back of this page. Be sure to include all of the parts necessary for a graph:

- Title
- Axes Labels (description with units)
- Appropriate scale
- Key/legend