**Graphing Tips**

**INTRODUCTION**

**Graphing** is a good method to show the results of a large amount of data very quickly. There are three main types of graphs:

**Line Graphs** are used to indicate changes over time and trends.

**Bar graphs** are used to compare things between different groups or to track changes over time.

**Pie charts** are best to use when you are trying to compare parts of a whole. They do not show changes over time.

A graph contains five major parts:

a. **Title**   
b. **The independent variable**c. **The dependent variable**d. **The scales for each variable**e. **A legend**

**Step 1** – With a ruler draw the x and y axis.

**Step 2** – Label each axis. Independent variable is usually on the x-axis (eg. time, temperature, distance). Dependent Variable is usually on the y-axis)

**Step 3** – Decide the scale and interval. Must encompass all the data points. Should start with 0 and climb based on intervals such as: multiples of 2, 5, 10, 20, 25, 50, or 100. The scale of numbers will be dictated by your data values.

**Step 4** – Plot your points

**Step 5** – Connect the dots (if making a line graph)

**Step 6** – Include a legend if necessary

**Step 7** – Give your graph a title – a concise statement indicating what the graph is about. Placed above the graph

For Full Marks your Line Graph must have:

1. Descriptive title
2. Correctly labelled x-axis, with units
3. Correctly labelled y-axis, with units
4. Axis drawn with a ruler
5. Origin starting at zero
6. Consistent scale with sensible intervals
7. Dots are connected
8. Colour, if more than one data set plotted
9. Legend if more than one data set plotted
10. Take up AT LEAST half a page.