Many relationships between variables can be represented by an equation. All disciplines (across Sciences, Technology, Business, Education, ...) use equations in this way.

Such equations can be used to represent the relationship between, say, the amount a family may spend, given a particular disposable income; the retained heat given time away from the heat source; the proportion of students remaining to the end of Y12 given the SES of the school’s area.

A simple irrefutable equation is the relationship between temperature Centigrade “C” and temperature Fahrenheit “F”. The equation is $F = 32 + \frac{9}{5}C$

To plot the graph, substitute the value 0 for C (freezing point) and the equation tells you that $F = 32$. Then, another point to plot is boiling point. Substitute the value 100 for C, and the equation gives you $F=212$. These two substitutions provide two points on the graph. Because the relationship is linear, a straight line can be drawn between these two points, showing the relationship. The graph one can produce looks like this:

The following videos are recommended:
http://patrickjmt.com/graphing-equations-by-plotting-points-example-1/