4. Graph Drawing Activity
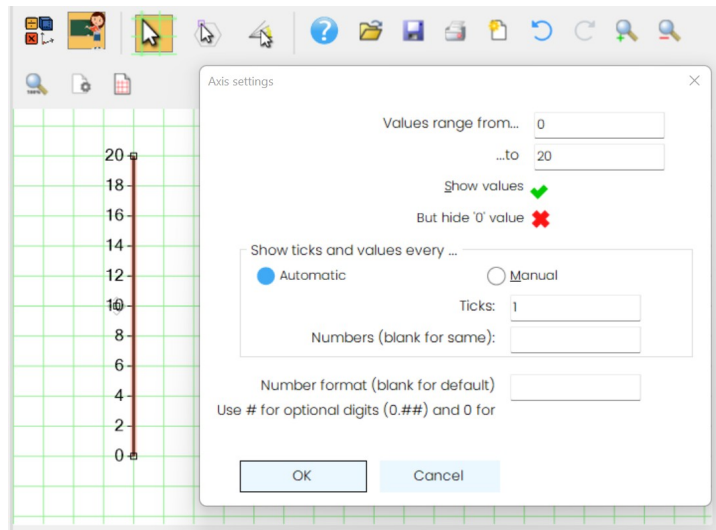
The Graph Activity

Here you can create bar charts, line graphs and pie charts.

The **Graph Axis Tool** (I) can be used to create a vertical or horizontal axis with the numbers set out. Alternatively the Line Tool (L or SH+L) can be used to draw a blank axis.

Make sure Snap to Grid is on so that the axis line fits onto the grid lines accurately

The graph axis sets out numbers 1 – 10 but this can be changed. Go to **Teacher Mode** and double click on the graph axis you have drawn. This will open the graph axis editing box:

You can change the range of values and whether the axis shows every second or fifth number etc. Here the axis has been changed to show every second number. You can decide whether to remove some numbers and you can use decimal numbers.

When using the graph axis to create a bar chart, it is best to use the "**Rectangle Tool** (R) to set out the bars. **Snap to Grid** will need to on when starting the rectangle but bear in mind that you will have to turn Snap to grid off if you need to place the graph against an odd number:

Milkshakes bought at Joe's cafe last yesterday:

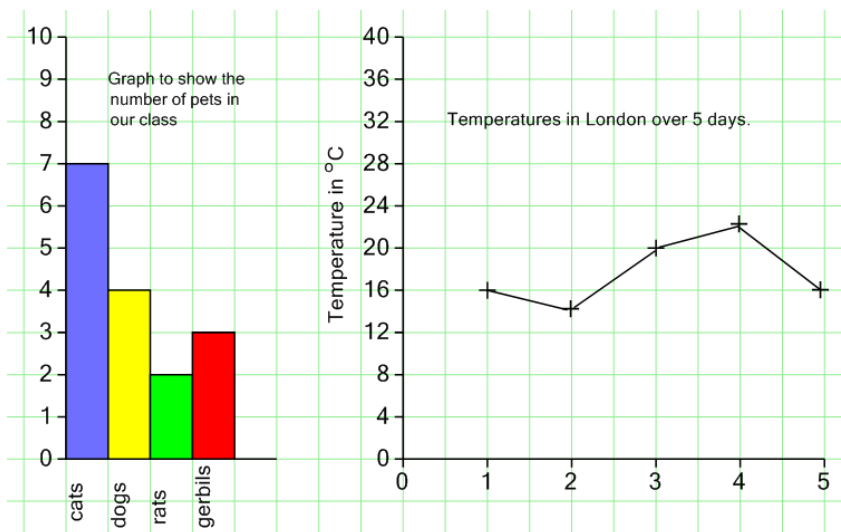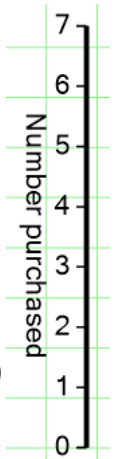| Flavours	Numbers
chocolate	19
strawberry	12
vanilla	15
banana	5
toffee	8

To automatically change the colour of each rectangle as it is placed, select the "rainbow" tool on the fill colour palette.

Always start the rectangle with "Snap to Grid" on. If you are placing the top of the rectangle onto an odd number you will need to unselect Snap to Grid before finishing the rectangle.

To add an overall label describing the axis, click on the axis with the **Writing Tool** (Sh+W). The label will be drawn vertically for Y-axes.

To create your own custom labels for values, you can use the **Simple Text** (T) tool for horizontal text, or **Text at an Angle** tool (W) to write text vertically - such as the label below the bars in the picture above.
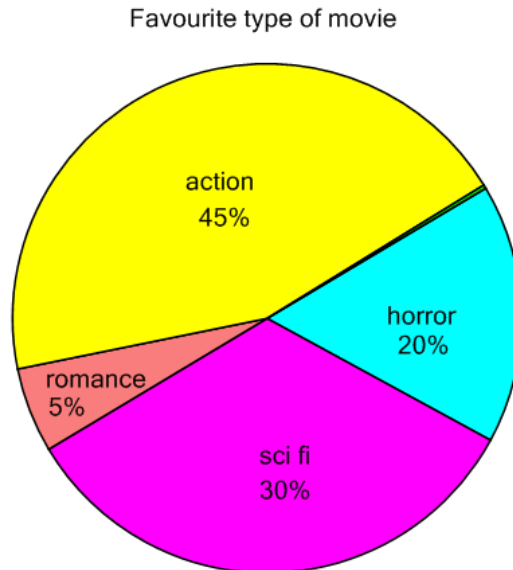
If you are creating a line graph use the **Marker Tool** (Sh+M) to create points which can then be joined together using the **Line Tool** (L), Multiple Line (Z). "Snap to Shape" will help draw the line through the points more accurately. If a curved line graph is required, use the **Curved Line Tool** (C)

Pie Charts (Sh+O)

Select the **Pie Chart Tool** (Sh+O) and left click where you would like the centre of the pie chart to be. Click again where you want to start the first slice. Keep moving and clicking to add more slices and double click to finish when you reach you first slice. You may want to place the **protractor** (Sh+P) onto the workspace first for accuracy when creating each slice.

Favourite type of movie

Editing the pie chart

Select the **Fill Tool** (Q) then choose the colour you want on the right side of the screen, then left click on the slice of the pie chart you want to change.

The fill palette has a "rainbow" option which will give each new slice a different colour if selected when starting the pie chart. The colours are then selected randomly each time you colour difference sections of the pie chart.

Add text to the pie chart using the **Writing Tools** (Sh+W, or T, W).