**Numeracy4All Tips**

**Data Handling**

### Surveys

<table>
<thead>
<tr>
<th>Do</th>
<th>Don’t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Give time frames when appropriate e.g. How many times do you go to the gym in a week?</td>
<td>Ask Biased Questions. Your favourite team is Man U Isn’t it?</td>
</tr>
<tr>
<td>Group figures together e.g. 0-15yrs 16-25yrs</td>
<td>Overlap categories e.g. 0-15yrs 15-25yrs</td>
</tr>
<tr>
<td>Use simple language</td>
<td>Be Vague</td>
</tr>
<tr>
<td>Use closed questions</td>
<td>Be too personal</td>
</tr>
</tbody>
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### Averages

**Hey diddle diddle!**

The **Median**’s the middle.
You add, then divide, for the **Mean**.
The **Mode** is the most common one that you see, and the **Range** is the difference between.

2, 2, 7, 9, 10

\[
\frac{(2+2+7+9+10)}{5} = \frac{30}{5} = 6\
\]

2, 2, 7, 9, 10

\[
10-2=8
\]

### Drawing Graphs

A graph to show teachers favourite colours.

<table>
<thead>
<tr>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Favorite Color</th>
</tr>
</thead>
</table>

Checklist
- Title
- Labelled axis
- Suitable Scale
- Plotted Accurately
- Key (if required)

### Bar Charts

**Discrete Data**
Can only take certain values. E.g. shoe size, hair colour and mode of transport. The bars should have **gaps** between.

**Continuous Data**
Can take any value within ranges. E.g. height, weight and time. There should be **no gaps** between bars.

### Pie Charts

\[
\text{Degrees} = \frac{\text{Category amount}}{\text{total}} \times 360
\]

### Reading from Graphs

You will often need to draw a line of best fit. This is a line with an equal amount of point on each side following the trend of the points.

### Correlation

The graph tells us if you weigh 62kg your estimated height is 148cm.

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