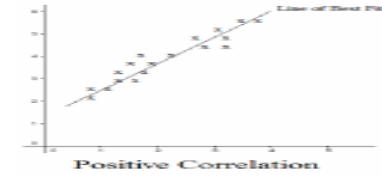
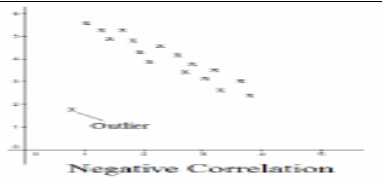
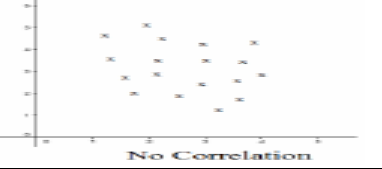
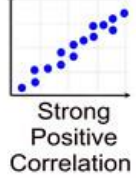
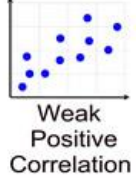
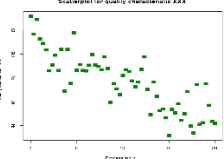
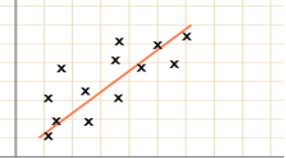
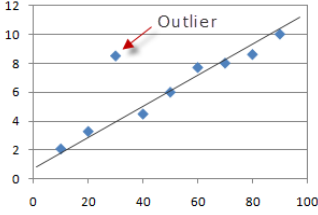
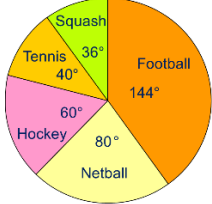


Year 8 Sets 3 and 4 Summer Half Term 2

Topic/Skill	Definition/Tips	Example
1. Correlation	Correlation between two sets of data means they are connected in some way.	There is correlation between temperature and the number of ice creams sold.
2. Causality	When one variable influences another variable.	The more hours you work at a particular job (paid hourly), the higher your income <u>from that job</u> will be.
3. Positive Correlation	As one value increases the other value increases .	
4. Negative Correlation	As one value increases the other value decreases .	
5. No Correlation	There is no linear relationship between the two.	
6. Strong Correlation	When two sets of data are closely linked .	
7. Weak Correlation	When two sets of data have correlation, but are not closely linked .	
8. Scatter Graph	A graph in which values of two variables are plotted along two axes to compare them and see if there is any connection between them.	
9. Line of Best Fit	A straight line that best represents the data on a scatter graph.	
10. Outlier	A value that 'lies outside' most of the other values in a set of data. An outlier is much smaller or much larger than the other values in a set of data.	

<p>11. Two Way Tables</p>	<p>A table that organises data around two categories.</p> <p>Fill out the information step by step using the information given.</p> <p>Make sure all the totals add up for all columns and rows.</p>	<p>Question: Complete the 2 way table below.</p> <table border="1"> <thead> <tr> <th></th> <th>Left Handed</th> <th>Right Handed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Boys</td> <td>10</td> <td></td> <td>58</td> </tr> <tr> <td>Girls</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td></td> <td>84</td> <td>100</td> </tr> </tbody> </table> <p>Answer: Step 1, fill out the easy parts (the totals)</p> <table border="1"> <thead> <tr> <th></th> <th>Left Handed</th> <th>Right Handed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Boys</td> <td>10</td> <td>48</td> <td>58</td> </tr> <tr> <td>Girls</td> <td></td> <td></td> <td>42</td> </tr> <tr> <td>Total</td> <td>16</td> <td>84</td> <td>100</td> </tr> </tbody> </table> <p>Answer: Step 2, fill out the remaining parts</p> <table border="1"> <thead> <tr> <th></th> <th>Left Handed</th> <th>Right Handed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Boys</td> <td>10</td> <td>48</td> <td>58</td> </tr> <tr> <td>Girls</td> <td>6</td> <td>36</td> <td>42</td> </tr> <tr> <td>Total</td> <td>16</td> <td>84</td> <td>100</td> </tr> </tbody> </table>		Left Handed	Right Handed	Total	Boys	10		58	Girls				Total		84	100		Left Handed	Right Handed	Total	Boys	10	48	58	Girls			42	Total	16	84	100		Left Handed	Right Handed	Total	Boys	10	48	58	Girls	6	36	42	Total	16	84	100
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<p>12. Primary /Secondary Data</p>	<p>Primary Data – collected yourself for a specific purpose.</p> <p>Secondary Data – collected by someone else for another purpose.</p>	<p>Primary Data – data collected by a student for their own research project.</p> <p>Secondary Data – Census data used to analyse link between education and earnings.</p>																																																
<p>13. Pie Chart</p>	<p>Used for showing how data breaks down into its constituent parts.</p> <p>When drawing a pie chart, divide 360° by the total frequency. This will tell you how many degrees to use for the frequency of each category.</p> <p>Remember to label the category that each sector in the pie chart represents.</p>	 <p>If there are 40 people in a survey, then each person will be worth $360 \div 40 = 9^\circ$ of the pie chart.</p>																																																
<p>14. Mean from a Table</p>	<ol style="list-style-type: none"> Find the midpoints (if necessary) Multiply Frequency by values or midpoints Add up these values Divide this total by the Total Frequency <p>If grouped data is used, the answer will be an estimate.</p>	<table border="1"> <thead> <tr> <th>Height in cm</th> <th>Frequency</th> <th>Midpoint</th> <th>F × M</th> </tr> </thead> <tbody> <tr> <td>$0 < h \leq 10$</td> <td>8</td> <td>5</td> <td>$8 \times 5 = 40$</td> </tr> <tr> <td>$10 < h \leq 30$</td> <td>10</td> <td>20</td> <td>$10 \times 20 = 200$</td> </tr> <tr> <td>$30 < h \leq 40$</td> <td>6</td> <td>35</td> <td>$6 \times 35 = 210$</td> </tr> <tr> <td>Total</td> <td>24</td> <td>Ignore!</td> <td>450</td> </tr> </tbody> </table> <p>Estimated Mean height: $450 \div 24 = 18.75\text{cm}$</p>	Height in cm	Frequency	Midpoint	F × M	$0 < h \leq 10$	8	5	$8 \times 5 = 40$	$10 < h \leq 30$	10	20	$10 \times 20 = 200$	$30 < h \leq 40$	6	35	$6 \times 35 = 210$	Total	24	Ignore!	450																												
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