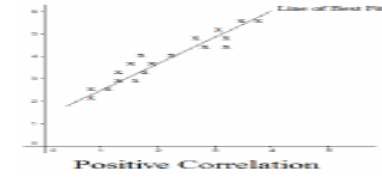
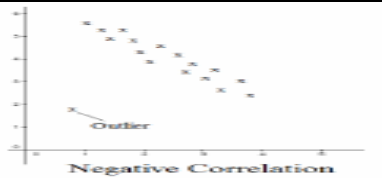
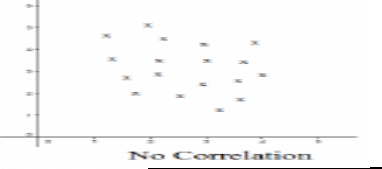

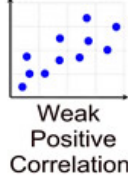
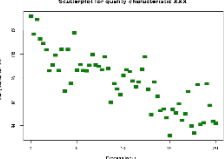
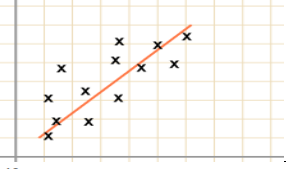
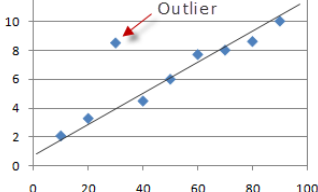


KS3 Unit 17 Scatter Graphs

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 .	 A scatter plot with a grid. The x-axis is labeled 'Positive Correlation' and has values from 0 to 10. The y-axis has values from 0 to 10. Data points are scattered but generally follow an upward trend. A solid line labeled 'Line of Best Fit' is drawn through the points, sloping upwards from left to right.
4. Negative Correlation	As one value increases the other value decreases .	 A scatter plot with a grid. The x-axis has values from 0 to 10. The y-axis has values from 0 to 10. Data points generally follow a downward trend. One point at approximately (1, 9) is significantly higher than the rest and is labeled 'Outlier' with an arrow pointing to it. A line of best fit is drawn through the main cluster of points, sloping downwards.
5. No Correlation	There is no linear relationship between the two.	 A scatter plot with a grid. The x-axis has values from 0 to 10. The y-axis has values from 0 to 10. Data points are scattered randomly with no discernible trend. A horizontal line is drawn across the plot at y=5, labeled 'No Correlation'.
6. Strong Correlation	When two sets of data are closely linked .	 A scatter plot with a grid. The x-axis has values from 0 to 10. The y-axis has values from 0 to 10. Data points are very tightly clustered along a diagonal line sloping upwards from left to right. The text 'Strong Positive Correlation' is written below the plot.
7. Weak Correlation	When two sets of data have correlation, but are not closely linked .	 A scatter plot with a grid. The x-axis has values from 0 to 10. The y-axis has values from 0 to 10. Data points are loosely clustered along a diagonal line sloping upwards from left to right. The text 'Weak Positive Correlation' is written below the plot.
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.	 A scatter plot with a grid. The x-axis is labeled 'Parameter' and has values from 0 to 20. The y-axis is labeled 'Quality Characteristic' and has values from 0 to 10. Data points are scattered with a slight downward trend. The title 'Scatterplot for quality characteristic XXX' is at the top.
9. Line of Best Fit	A straight line that best represents the data on a scatter graph.	 A scatter plot with a grid. The x-axis has values from 0 to 10. The y-axis has values from 0 to 10. Data points are scattered but follow an upward trend. A solid red line is drawn through the points, sloping upwards from left to right.
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.	 A scatter plot with a grid. The x-axis has values from 0 to 100. The y-axis has values from 0 to 12. Data points are scattered but follow a general upward trend. One point at approximately (25, 9) is significantly higher than the rest and is labeled 'Outlier' with an arrow pointing to it. A line of best fit is drawn through the main cluster of points.