

Year 9 Higher Unit Three Knowledge Organiser - Averages and Range, Collecting Data and Representing Data

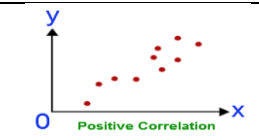
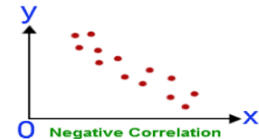
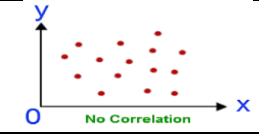
Types of Data		
1	Population	The group of individuals from which the data has been obtained.
2	Sample	A selection of individuals taken from the population.
3	Biased sample	A sample that doesn't represent the whole population.
4	Data	A collection of facts.
5	Primary Data	Data that has been collected from the original source.
6	Secondary Data	Data obtained from another source.
7	Quantitative	Information that can be counted or measured.
8	Qualitative	Information that describes something in words.
9	Discrete data	Data that can only take certain values.
10	Continuous data	Data that can take any value within a unit of measurement.
11	Grouped data	Data that is combined within a range of values.

Tables		
1	Frequency	The number of times something happens.
2	Tally Chart	Table that records frequency with each mark representing  .
3	Frequency Table	A table that lists a set of discrete variables and their frequency.
4	Two-way table	A way to organise data about two variables.

Averages and Range		
1	Mean	The total value of a set of numbers divided by the number of values or total frequency.
2	Median	The middle value of set of numbers after they are put in ascending order.
3	Mode	The most common/frequent value from a set of data.
4	Range	Largest value – smallest value.

Representing and Interpreting data		
1	Chart	A drawing that shows information in a simple way, often using lines and curves to show amounts.
2	Graph	A picture that shows how two sets of information or are related.
3	Interpret	Explain the meaning of.

4	Bar chart	A chart that uses the height of a bar to represent the frequency of a piece of data.
5	Frequency polygon	A line graph that plots the frequency on the y axis against the mid-value of the class interval on the x axis.
6	Pie chart	A diagram where the size of the sector within a circle represents its relative frequency of the whole population.
7	Line graph	A graph that shows how information changes over time.
8	Time-series graphs	A line graph that shows how a variable changes over time.
9	Histogram	A chart where the frequency is represented by the area of a bar.
10	Stem and leaf	A plot where each data value is split into a "leaf" (the last digit) and a "stem" (the other digits).

Scatter Graphs			
1	Scatter graph	A diagram that establishes the relationship between two variables.	
2	Line of best fit	A straight line drawn through a scatter graph to show correlation.	
3	Correlation	The relationship that exists between two variables shown on a scatter graph.	
4	Positive correlation	An upward trend in the line of best fit. As one variable increases, the other also increases.	
5	Negative correlation	A downward trend in the line of best fit. As one variable increases, the decreases.	
6	No correlation	No relationship between the two variables	
7	Strong correlation	A close relationship between the two variables shown on a scatter graph.	
8	Weak correlation	A general relationship between two variables shown on a scatter graph.	

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9	Outlier	A value that lies outside most of the other values in a set of data.
10	Interpolation	Extracting information from within the data range given in the scatter graph.
11	Extrapolation	Extracting information from outside of the data range given in the scatter graph.