



CURRICULUM CORE KNOWLEDGE PLAN

SUBJECT: Statistics

YEAR GROUP: Year 10

DATE:

Term and unit	Core knowledge	Core vocabulary	Revisiting prior knowledge	Links to Walney Ways & Employability skills/Careers
Autumn Term 1.1 – Collecting Data (6 weeks)	• Describing data • Grouping data • Primary and secondary data • Populations • Petersen capture-recapture method • Random Sampling • Non-Randon Sampling • Stratified Sampling • Collection of data • Questionnaires and interviews • Problems with collected data • Controlling extraneous variables • Hypotheses • Designing Investigations			



Autumn Term 1.2 – Processing and representing data (6 week)	• Tables • Two-way tables • Pictograms • Bar Charts • Stem and Leaf diagrams • Pie Charts • Comparative Pie Charts • Population pyramids • Choropleth maps • Histograms and frequency polygons • Cumulative frequency charts • The shape of a distribution • Histograms with unequal class width • Misleading diagrams • Choosing the right diagram			
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Spring Term 2.1 – Summarising data (6 weeks)	• Averages • Averages from frequency tables • Averages from grouped data • Transforming data • Geometric and weighted mean • Measures of spread for discrete data • Measures of spread for grouped data • Standard Deviation • Box plots and outliers • Skewness • Deciding which average to use • Comparing data sets • Making estimates			
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Spring Term 2.2 – Scatter Diagrams and correlation (6 weeks)	• Scatter diagrams • Correlation • Causal relationships • Line of best fit • Interpolation and Extrapolation • The equation of a line of best fit • Spearman’s Rank correlation coefficient • Pearson’s Product moment correlation coefficient			
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Summer Term 3.1 – Time Series (6 weeks)	• Line graphs and time series • Trend Lines • Variations in a time series • Moving averages • Estimating seasonal variation and making predictions			
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Summer Term 3.2 – Normal Distributions (6 weeks)	• Normal Distributions • Standard Deviation • Central tendencies • Standardised scores • Quality Control charts			
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