

Subject – Stats (GCSE Statistics)

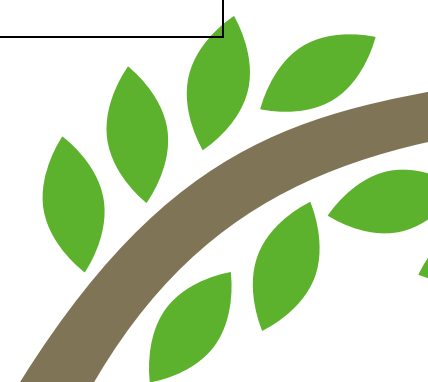
As one of our KS4 option choices, GCSE Statistics is unique in that it is closely linked to GCSE Mathematics but stands alone as a separate GCSE qualification. It takes the content from the 'Data Handling' stream of GCSE Mathematics (which is approximately 15% of that course) and builds upon it, encouraging pupils to learn to interpret data in a more meaningful and applicable way than is required for GCSE Mathematics. There is a large amount of overlap between the two subjects, and as such pupils who also study GCSE Statistics will benefit from further practice on a significant portion of their mathematics GCSE.

All Key Stage 4 pupils will have two hours of statistics lessons per week, and these will be delivered on a 12 week cycle model, with each cycle (term) split into two separate parts. The first half of each term will cover various topics from the GCSE Statistics syllabus split into the four areas of statistics; Collecting Data, Interpreting Data, Calculations and Probability. The second half of each term will be usually focus on the pupils completing a project-based statistical investigation that will allow them to practice applying the theory that they have learned in the previous lessons. Each cycle will end with a practice GCSE paper and each cycle is summarized for pupils in the form of a knowledge organizer for use with their revision.

GCSE Statistics focusses on teaching pupils to interpret data through the use of calculations, diagrams and provided statistics. It does this at a greater depth than GCE Mathematics and pupils will learn to articulate their conclusions in a written form to relate them to a hypothesis, much like they do in GCSE Science. There is a strong element on revisiting topics and encouraging deeper understanding and the cycle tests are tracked to accurately measure pupil progress.



KS4 Statistics	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 9 [Red is Higher Content only]	<u>Data</u> Types of Data <u>Calculations</u> Averages and Spread Comparing <u>Diagrams</u> Bar Charts Line Graphs Frequency Diagrams Histograms	<u>Project #1</u> Primary Data Collection using Questionnaires	<u>Calculations</u> I.Q.R. Sampling <u>Diagrams</u> Box Plots Stem and Leaf C.F. Diagrams <u>Probability</u> Venn Diagrams	<u>Project #2</u> Secondary Data using a sampling method	<u>Data</u> Variables <u>Calculations</u> Correlation Spearman's Rank <u>Diagrams</u> Pie Charts Scatter Diagrams	<u>Project #3</u> Primary Data using an experiment
Year 10 [Red is Higher Content only]	<u>Data</u> Types of Data <u>Calculations</u> Averages and Spread I.Q.R. Outliers <u>Diagrams</u> Frequency Diagrams Frequency Curves C.F. Diagrams	<u>Project #4</u> Primary Data Collection using a Survey	<u>Data</u> Birth & Death Rates <u>Calculations</u> Spread (Deciles & Percentiles) Inter/Extrapolation Spearman's Rank <u>Diagrams</u> Scatter Diagrams Skewness	<u>Project #5</u> Secondary Data using a sampling method	<u>Calculations</u> Spread Standard Deviation <u>Diagrams</u> C.F. Diagrams Time Series <u>Probability</u> Estimated Probability	<u>No project due to PPE Exams</u> <u>Probability</u> Tree Diagrams Sample Space Diagrams Two Way tables



KS4 Statistics	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 11 [Red is Higher Content only]	<u>Data</u> Correlation Spreadsheets <u>Calculations</u> Index Numbers Sampling Distributions	<u>Project #6</u> Primary Data Collection using an Online Survey	Teacher-led bespoke Scheme of Learning designed to target either Grade 4 or 6 at GCSE.	Pupil-led Revision Scheme of Learning, Past paper Practise and Exams.		

