GCSE Statistics Overview

Exam Overview:
- 2 exam papers – no controlled assessments
- 1 hour 30 mins each
- Equally weighted – each paper is worth 50%
- 80 marks each
- Calculators may be used in both exams.

The papers contains short response, medium response and extended response questions
Both papers focus on the same content and skills.
This gives students and teachers an opportunity after the first paper to reflect on the areas they need to work on in order to strengthen performance in the second paper.

Range of Content:
1. The Collection of Data
2. Processing, Representing and Analysing Data (Graphs and Calculations)
3. Probability

Content Overview:
Topics in blue are also taught in maths.
Topics in red are specific to GCSE Statistics.

Data Collection – types of data, populations and sampling, hypotheses and designing investigations

Representing and Processing Data – frequency tables, two way tables, bar charts, pie charts, stem and leaf diagrams, cumulative frequency diagrams, box plots, histograms, population pyramids, line graphs, choropleth maps.

Summarising data – measures of central tendency and dispersion (mean, median, mode, index numbers, ranges, quartiles, percentiles, variance, standard deviation, standardised scores).

Scatter diagrams and Correlation - Line of best fit, regression line, interpolation and extrapolation

Time series and moving averages

Probability - sample space diagrams, tree diagrams, Venn diagrams, independent events, conditional probability.

Probability Distributions

Assessment Objectives:
(taken from Edexcel GCSE Statistics (9-1) specification)

Students must:			% in GCSE
AO1	Demonstrate knowledge and understanding, using appropriate terminology and notation, of standard statistical techniques used to: • collect and represent information • calculate summary statistics and probabilities		55
AO2	Interpret statistical information and results in context and reason statistically to draw conclusions Where questions/tasks targeting this Assessment Objective will also credit students for their ability to 'demonstrate knowledge and understanding of standard statistical techniques (AO1) and/or to 'assess the appropriateness of statistical methodologies and the conclusions drawn through the application of the statistical enquiry cycle' (AO3), an appropriate proportion of the marks for the question/task must be attributed to the corresponding Assessment Objective(s).		25
AO3	Assess the appropriateness of statistical methodologies and the conclusions drawn through the application of the statistical enquiry cycle Where questions/tasks targeting this Assessment Objective will also credit students for their ability to 'demonstrate knowledge and understanding of standard statistical techniques' (AO1) and/or to 'interpret statistical information and results in context and reason statistically to draw conclusions' (AO2), an appropriate proportion of the marks for the question/task must be attributed to the corresponding Assessment Objective(s).		20
		Total	100%