

## Year 10

Students in Year 10 take their GCSE Statistics exams in the summer term. These consist of two calculator papers. The exam board is Edexcel.

In Year 10, alongside revision of Year 7-9 topics, we cover the following topics (bold topics are higher tier only):

<b>Half Term 1</b>
Bearings
Direct proportion
Ratio in mixing/concentration problems
Geometrical problems on coordinate axes
Surface area of a cylinder
<b>The Binomial distribution</b>
Cumulative frequency
Median & interquartile range from cumulative frequency graphs
Basic understanding of outliers
<b>Half Term 2</b>
Solutions to linear equations using graphs
Loci
<b>Comparative pie charts</b>
Trends and trend lines
Moving averages
<b>Mean seasonal variation</b>
Percentiles
<b>Interpercentile and interdecile range</b>
Box plots
<b>Half Term 3</b>
Inverse proportion
Reflections
Enlargements
Outliers
Skewness

Venn diagrams and set notation (e.g. union, intersection)
<b>Conditional probability</b>
<b>The general addition law for dependent events</b>
The multiplication law for independent events
<b>Standard deviation</b>
<b>Standardising data</b>
Use appropriate measures of central tendency and spread to compare data sets
<b>Half Term 4</b>
Roots, intercepts and turning points of quadratic equations
<b>Completing the square</b>
<b>The quadratic formula</b>
Approximate solutions to quadratic equations using graphs
Vectors
Congruence proof
<b>Geometric mean</b>
Histograms
Spearman's rank correlation coefficient
<b>Half Term 5</b>
Plot and interpret graphs in context
Graphs of kinematics problems
<b>Interpret the gradient at a point on a curve as the instantaneous rate of change</b>
<b>Calculate/estimate gradients of graphs and interpret in context</b>
<b>Calculate/estimate areas under graphs and interpret in context</b>
<b>Simplifying algebraic fractions</b>
<b>Multiplication &amp; division of algebraic fractions</b>
Consecutive transformations
<b>Changes and invariance following transformations</b>
Surface area of cones, spheres & composite solids
<b>Pearson's product moment correlation coefficient</b>
<b>The Normal distribution</b>
<b>Use action and warning lines in quality assurance sampling applications</b>
Revision for GCSE Statistics exam

**Half Term 6**

Revision for GCSE Statistics exam

Arc length