# Year 13 Statistics Key Stage 5 Maths Curriculum

| Autumn 1 |
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| **Statistics Chapter S3: Normal Distribution** |
| **Assessment:** Ch 3 Normal Distribution |
| **Builds Upon (AS Mathematics – Statistics and Pure content):**<br>• Solve two simultaneous equations in two variables (linear/linear or linear/quadratic) algebraically<br>• Probability calculations, independent events<br>• Properties of the binomial distribution<br>• Probability is the area under a curve<br>• Use appropriate language of statistical hypothesis testing<br>• Be able to apply a hypothesis test to the binomial distribution |
| **Introduces:**<br>• Understanding the normal distribution and the characteristic of a normal distribution curve<br>• Find percentage points on a standard normal curve<br>• Calculate values on a standard normal curve<br>• Find unknown means and/or standard deviations for a normal distribution<br>• Approximating a binomial distribution using a normal distribution<br>• Select appropriate distributions and solve real-life problems in context<br>• Carry out a hypothesis test for the mean of a normal distribution |

## Autumn 2

**Statistics Chapter 1: Regression, Correlation and hypothesis testing**

**Assessment:** Ch 1 Regression, Correlation and hypothesis testing

**Builds Upon (AS Mathematics – Statistics and Pure content):**

- Understanding of regression
- Understanding of correlation
- Use appropriate language of statistical hypothesis testing
- Be able to apply a hypothesis test to the binomial distribution
- Knowledge of logarithms

**Introduces:**

- Understand exponential models in bivariate data and use a change of variable to estimate coefficients in an exponential model
- Understand and calculate the product moment correlation coefficient
- Carry out a hypothesis for zero correlation

## Spring 1- 2

**Statistics Chapter S2: Conditional Probability**

**Assessment: Ch 2 Conditional Probability**

**Builds Upon (AS Mathematics – Statistics and Pure content):**

- Mutually exclusive and independent event

**Introduces:**

- Understand set notation in probability
- Understand conditional probability
- Solve conditional probability problems using two-way tables and Venn diagrams
- Use probability formulae to solve problems
- Solve conditional probability using tree diagrams

| Summer Term |
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| You will begin the Yr13 Pure course during your applied lessons. |