



The Priory Witham Academy : Curriculum Overview

Believe together, achieve together

SUBJECT	Statistics	CURRICULUM LEADER	C. Webster	YEAR	9
ORGANISATION OF THE SUBJECT	<p>Statistics is a new option that has been offered this year at the Priory Witham Academy. The course is a three year course and is run through the exam board AQA and students will receive a GCSE grade 9-1.</p> <p>The course is delivered through three hours of lessons per week with an expectation of the students completing one hour of homework per week.</p> <p>Students will study the foundation content through the first year and into the second year and will progress onto the higher tier content once this is complete in Year 10 and into Year 11. Students will then be considered on an individual basis as to whether to undertake the foundation or higher tier exam.</p> <p>Statistics is about making decisions when there is uncertainty. Perhaps one of the most versatile areas of maths, it gives students the skills to collect, analyse, interpret and present data. It complements subjects such as GCSE Biology, Psychology, Geography, Business and Economics, and opens the door to a variety of careers – from weather forecasting to the biological sciences.</p>				
Key Concepts (The big ideas underpinning this subject)			Key Skills in this subject		
<p>Courses based on this specification encourages students to:</p> <p>Demonstrate knowledge and understanding, using appropriate terminology and notation, of standard statistical techniques used to:</p> <ul style="list-style-type: none"> • collect and represent data • calculate summary statistics and probabilities. <p>Interpret statistical information and results in context and reason statistically to draw conclusions.</p> <p>Assess the appropriateness of statistical methodologies.</p>			<p>The qualification will encourage you to master all part of the Statistical Enquiry Cycle, this includes but is not limited to:</p> <ul style="list-style-type: none"> • planning an investigation • sourcing data • processing data • interpreting data • evaluating processes • ethical considerations 		

<p>What will be learnt in this subject?</p>	<p>How will learning take place in this subject?</p>
<p>The students will be required to study all aspects of the Statistical Enquiry Cycle (SEC) and eventually be able to independently complete the full cycle and analyse other examples. They will achieve this by studying each of the following:</p> <ul style="list-style-type: none"> • use statistical techniques in a variety of authentic investigations, use real world data in contexts such as, but not limited to, populations, climate, sales etc. • identify trends through carrying out appropriate calculations and data visualization techniques • apply statistical techniques across the curriculum, in subjects such as the sciences, social Sciences, computing, geography, business and economics, and outside of the classroom in the world in general • critically evaluate data, calculations and evaluations that would be commonly encountered in their studies and in everyday life • understand how technology has enabled the collection, visualisation and analysis of large quantities of data to inform decision-making processes in public, commercial and academic sectors • apply appropriate mathematical and statistical formulae. 	<p>Work in Statistics will vary depending on the subject matter being taught, the stage of the students learning and what the outcomes of each lesson are meant to be.</p> <p>In lessons written work will be expected to be of a high standard being presented in the correct way. We understand students learn differently and so the teaching will often adapt to cater for the needs of individual children.</p> <p>Work in class may include but not limited to:</p> <ul style="list-style-type: none"> • Discussion based lessons – These lessons will present a key question to the pupils and they will have to work in small groups and look at all aspects of the question and then to present and justify their findings. • Experiments – A number of tasks in GCSE Statistics will require students to conduct the Statistical Enquiry Cycle (SEC) as part of different experiments and investigations. This will be completed periodically throughout the course and over a number of lessons. • Questions from a worksheet or textbook – These tasks help to improve the student’s fluency with core mathematical content which is required to access more complex statistical analysis. Additionally this will be used to develop student’s proficiency with using different analytical tools. <p>In all of these tasks students are encouraged to challenge themselves and their limits. The work will be designed to ensure each and every student is stretched in order to achieve their potential. Within lessons work will be personalised and differentiated to support the individual needs to the students and they will be appropriately supported by the teaching staff.</p>
<p>What methods of assessment will be used?</p>	<p>How can you support learning and progress in this subject?</p>
<p>GCSE Statistics has a Foundation tier (grades 1 – 5) and a Higher tier (grades 4 – 9). Students must take two question papers at the same tier.</p>	<ul style="list-style-type: none"> • Support students at home, encouraging them to complete homework and discussing the work pupils are completing in class.

<p>Paper 1</p> <ul style="list-style-type: none"> • 50% of the GCSE • 80 Marks • 1 hour and 45 minutes • A mix of multiple choice, short answer and one statistical enquiry cycle question. <p>Paper 2</p> <ul style="list-style-type: none"> • 50% of the GCSE • 80 Marks • 1 hour and 45 minutes • A mix of multiple choice, short answer and one statistical enquiry cycle question. 	<ul style="list-style-type: none"> • Ensure you are aware of the different online and offline resources your child can access when they are not in school. • Support your child with effective time management. • Communicate with school, your child will certainly benefit from positive dialogue between yourself and your child's teacher. • Support the school by allowing your child to attend extra-curricular clubs and intervention sessions. • Ensure you know how to access and use Show My Homework to support your child with their homework.
<p>Equipment needed for this subject.</p>	<p>Learning outside the classroom: enrichment opportunities in this subject.</p>
<ul style="list-style-type: none"> • Black Pen • Pencil • 30cm Ruler • Rubber • Scientific Calculator (We recommend the Casio FX-85GTPLUS which can be bought in most stationary shops). 	<p>All pupils have access to a variety of hard copy and online support such as:</p> <ul style="list-style-type: none"> • SharePoint (Statistics will appear under the Mathematics subject page) • MathsWatch (This will support in the key foundation statistical tools needed) • BBC Bitesize • Youtube Statistics Revision Playlists <p>All of which follow the curriculum taught in class. Students should know their own user names and passwords but they can all be obtained from the Mathematics office if needed. They can access these both in school and out. All pupils are encouraged to use these resources as often as possible.</p>