

Curriculum Intent Statements

Faculty	Mathematics
Subject	Mathematics and Statistics
<p>Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology, and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.</p> <p>We believe mathematical intelligence is expandable, and that every student can learn mathematics. Our curriculum map reflects our high expectations for every child regardless of their background or starting point. This allows students to develop fluency, reasoning, and problem-solving skills. Our aim is to create the conditions for students to learn through interleaving knowledge and learn to solve problems to develop lifelong transferable skills that can be taken to the next stage of their learning journey or workplace. In addition, we aim to ensure our students gain confidence and an appreciation for all the mathematics around them and will exhibit a thirst for mathematical knowledge and learning.</p> <p>1. Deep Understanding</p> <p>Our practice embeds the importance of underpinning knowledge, enabling students to build on this to achieve a deeper understanding. We believe that we must interleave knowledge to achieve this. Students will become fluent in the fundamentals of mathematics, through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. We offer students the opportunity to further their Level 2 studies through a GCSE in statistics and/or a GCSE in further mathematics. These additional qualifications are a perfect steppingstone for students leaving The Wells Academy to further their mathematical studies through A level mathematics or a Level 3 in Mathematical Studies. A level maths remains the most popular A level in the UK and is highly regarded by employers and universities.</p> <p>2. Mathematical thinking</p> <p>We believe that it is essential for students to develop mathematical thinking in and out of the classroom to fully master mathematical concepts. We want students to think like mathematicians, not just DO maths. They should reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language. We aim to produce young people that can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps using perseverance and resilience in seeking solutions. We firmly believe this skill will help young people to leave school with the ability to think logically, problem solve, and be ready for the world of work.</p> <p>3. Mathematical Language</p> <p>We believe that students should be encouraged to use accurate mathematical language throughout the school. Students' acquisition and command of vocabulary are key to their learning and progress across the whole curriculum.</p> <p>The way students speak and write about mathematics has been shown to have an impact on their success. We therefore introduce, use, and reinforce mathematical vocabulary aiming to increase student's store of words in general; simultaneously, we will make links between known and new vocabulary and discuss the meaning in similar words. In addition, we encourage comprehension in order that that they understand</p>	

the meanings of words they come across that have alternative meanings in other subjects. We do this throughout maths lessons, so students can work with word problems from the beginning of their learning.					
Curriculum Time / Week	Year 7	Year 8	Year 9	Year 10	Year 11
	5	5	5	6	5
KS4 Qualifications	OCR J560 GCSE Mathematics Edexcel 1ST0 GCSE Statistics				
Useful Learning Resources	https://www.ocr.org.uk/subjects/mathematics/ https://qualifications.pearson.com/en/qualifications/edexcel-gcses/statistics-2017.html https://hegartymaths.com/ www.corbettmaths.com				
Staff teaching the subject		Role		Email	
Mrs Paine Mr Rao Mr Tomkinson Mr Purewal Mr Shaw Mr Hall Mr Shepherd		Assistant Principal Standards and Progress Lead Teacher of Mathematics Teacher of Mathematics Teacher of Mathematics Teacher of Mathematics Principal		apaine@thewellsacademy.org jrao@thewellsacademy.org ctomkinson@thewellsacademy.org jpurewal@thewellsacademy.org dshaw@thewellsacademy.org rhall@thewellsacademy.org mshepherd@thewellsacademy.org	