



A LEVEL OCR H240	<h1 style="text-align: right;">MATHEMATICS</h1>
SPECIFIC ENTRY REQUIREMENTS	<p>Most of our successful students score a grade 7 or better at GCSE mathematics, although a 6 is the minimum requirement. We will give all students a baseline test at the start of Year 12 to check that they have completed the required skills practice over the summer, and students who come with a grade 6 should be aware that this period is an important one.</p>
COURSE CONTENT	<p>All students will be assessed on a knowledge of pure mathematics, some statistics, and some mechanics.</p>
EXAMINATIONS AND ASSESSMENTS	<p>Assessment is drawn from the pure mathematics syllabus, a statistics syllabus and a mechanics syllabus, with calculators being required for all assessment. The A Level course is assessed by three examination papers, each lasting two hours and providing one third of the total marks, and consisting of a range of problems from multiple choice and single step to multi-step problems.</p> <p>Paper 1 covers the pure mathematics topics: proof, algebra and functions, co-ordinate geometry, sequences and series, trigonometry, exponentials and logarithms, differentiation, integration and numerical methods.</p> <p>Paper 2 can assess any of the Paper 1 content, but will also include questions on statistical sampling, data presentation and interpretation, probability, statistical distributions and hypothesis testing.</p> <p>Paper 3 can also assess any of the Paper 1 content, but will also include questions on vectors, quantities and units in mechanics, kinematics, forces, Newton's laws and moments.</p>
SKILLS, LINKS AND PROGRESSION	<p>Mathematics qualifications at advanced level are highly regarded for entry to higher education and by employers in all walks of life. Mathematics can be studied alongside a range of other subjects. The mechanics components support physics and also provide a sound base for engineering degree courses, whereas the statistics components are excellent support for all of the social and physical sciences.</p>
CONTACT	<p>Head of Mathematics: Mr A Champion adamcampion@keswick.cumbria.sch.uk</p>