



# Westcliff High School for Boys

## UNLOCK YOUR POTENTIAL

### Careers across the curriculum

#### in MATHS

<b>Soft Skills Development (these are the skills we are committed to developing in the Careers Department)</b>	
<b>All Years</b>	We develop <b>communication and teamwork</b> by encouraging participation in Gauss Group (Mathematics Society). An active mentor programme also encourages pupils to offer support to each other.
<b>Years 8, 9, Middle School and Sixth Form</b>	We develop <b>time management</b> skills by regularly setting tests in timed conditions, following a regular schedule of Dr Frost Maths Homework tasks, and sharing the schedule of upcoming synoptic tests.
<b>Year 9, Middle School and Sixth Form</b>	We develop <b>creative thinking</b> by building pattern recognition and encouraging rich mathematical discussion between students.
<b>In Middle School</b>	We develop <b>problem solving</b> by encouraging pupils to independently attempt questions and refine their solution technique to build the most efficient method.
<b>In Sixth Form</b>	We develop <b>networking</b> with the Mathematics Prefect Programme, encouraging students to work with each other and younger pupils.
<b>Development of Subject Specific Skills which are Relevant to Next Steps / the Workplace</b>	
<p>Mental Maths skills are developed through initiatives such as Mental Maths Maestros in KS3 and regular questioning in KS4 and KS5, helping students apply quick calculations in everyday life. Logic and problem-solving are strengthened as Mathematics teaches students to follow structured reasoning, evaluate arguments, and justify conclusions. Through numerical fluency, learners build confidence working with calculations, percentages, ratios, and estimates, all of which support practical daily tasks like budgeting or shopping.</p> <p>Spatial and visual reasoning skills grow through geometry and trigonometry, enabling students to visualise shapes, distances, and spatial relationships.</p> <p>Mathematics also promotes perseverance and resilience, as students learn to cope with mistakes, refine their methods, and adopt a growth mindset.</p> <p>By engaging with calculators, spreadsheets, and graphing tools, they also develop technical and digital skills that support data handling and technological fluency.</p> <p>Strong problem-solving abilities are further cultivated as students learn to break complex tasks into manageable steps, try different strategies, and persist with challenges beyond the classroom.</p> <p>Finally, communication skills are enhanced as learners practise explaining their reasoning clearly and logically, both verbally and in writing.</p>	
<b>Extra-curricular Opportunities</b>	
<b>Gauss Group</b>	Student-led group that offers Sixth Form Maths prefects the opportunity to inspire younger pupils with Mathematics topics and problems beyond the curriculum.
<b>Maths Mentoring</b>	Helps promote communication and problem-solving skills.



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<b>Help Clubs</b>	Allows pupils to develop their communication skills and improve their problem-solving ability.
<b>Maths Fest</b>	An opportunity for networking with other young mathematicians, collaboration and problem solving as well as exploring interest in Mathematics related careers.
<b>UKMT Maths Challenges</b>	Promotes logical thinking and problem-solving under time pressure.
<b>Nuclear Races Maths Mud Days</b>	Encourages team building and communication.
<b>Year 11 Mathematics Enrichment Day</b>	Develops problem solving, communication and leadership skills.
<b>Pi Day Celebrations</b>	Organisational responsibilities for Sixth Form Mathematics Prefects.