



## ***MATHS AT WALTON HIGH***

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### **OUR VISION FOR EFFECTIVE LEARNING**

We aim to develop students who are not only functionally numerate and confident in using their mathematical skills but who are also willing to engage, think and experiment with maths. In order to do that we want our teachers to develop students as learners by planning inspiring and engaging lessons which set challenging targets for students and support them in reaching those goals.

### **Our team**

We are a team of 23 specialist maths teachers split across our two campuses. Each campus has a Leading Teacher who reports directly to our Director of Maths. The leadership is further supported by subject leaders for KS3, KS4 and KS5 at both of our campuses. Specialist maths intervention teachers support the department in ensuring all students make excellent progress. We work collegiately - sharing ideas, resources and expertise with each other and with trainees, always with a sense of purpose – and good humour.

### **OUR MATHS CURRICULUM**

#### **Key Stage 3**

- This course has been developed in-house, with concrete materials, pictorial representations and investigational work integral to the course. We believe students deriving methods themselves is more powerful and leads to better retention for our students.
- Diagnostic testing in the autumn term of Year 7 helps us to supplement the information from primary schools and so immediately work with students to fill any gaps in knowledge or understanding.
- Our 5 year curriculum plan aims to minimise repetition and maximise the potential for students to develop conceptual understanding.

#### **Key Stage 4**

- At KS4 students are taught in groups set according to prior attainment and tier of study; when assessment informs us, set changes are made to best meet our students' needs.
- The course has scope for functional and investigative maths to secure students' deep understanding.
- There is a heavy focus on applied mathematics to prepare our students for the more rigorous GCSE examinations.
- At Walton High it is our aim to nurture students' enthusiasm for Maths. The students are at the heart of everything we do. We want our students to leave school equipped with the skills and confidence to be successful beyond GCSEs.



## Key Stage 5

- Students wishing to study maths at A Level have the option of Core Maths, Maths or Further Maths.
- At Walton High we are continually looking for ways to broaden our curriculum; responding to the needs and interests of our students. Recognising an increasing demand in further education and employment for more competent applications of statistics, from September 2022 we are offering students AS and A Level Statistics.
- Essential for many higher education courses and careers, A Level Maths proves to be one of our most popular subjects for Post-16 at Walton High; we currently have almost 130 students enrolled.
- We encourage all our students to become independent learners. The role our teachers play in empowering our students to become better mathematicians is integral to students' development and success in the subject.

## ENRICHMENT OPPORTUNITIES

The maths team makes a major contribution to Walton High's enriched curriculum.

*Advanced Learning Days* have been designed to explore how Maths is employed in the design and construction of a range of buildings and businesses. Trips to country houses to see how architects have used Maths to design classical homes; to theme parks to study how rides are constructed and RAF establishments and warehouses to understand the role of Maths in logistics have all featured recently.

After school enrichments look to offer students the opportunity to discover the awe and wonder of mathematics and understand its significance in everyday-life and its presence across nature. Fun applications of Maths encourages students to engage with the subject and appreciate its importance; empowering students to be more independent and resilient learners.

After school support sessions are well attended by students who want additional support with their Maths. We enter students, from all years, into local and national competitions and have had major success in the UK Maths Challenge. We are in close liaison with our partner primary schools and are looking to forge even closer links in the future.

## STUDENT AMBASSADORS

At Walton High we put students at the heart of our learning. This year we have introduced a student ambassador scheme across both campuses. We have student representatives from each year group who regularly meet to discuss students' experience in maths at Walton High. We want students to have an input into our curriculum design; to understand what excites students, what aspects of maths they enjoy most, the elements which entice students want to study maths at KS5. This helps to inform



our planning for the future, as well as activities to run as enrichments or Advanced Learning Days. With students placed at the heart of what we do, students feel valued, listened to and supported.

#### **FACILITIES TO SUPPORT OUTSTANDING LEARNING**

- We have a suite of 18 spacious and well-resourced maths classrooms across Walnut Tree and Brooklands.
- There is a networked PC in each room which is connected to an interactive smart panel.
- We also enjoy regular access to the ICT rooms, and use Autograph, Geogebra as well as a variety of cross-curricular software.
- All subject areas have administrative, reprographic and data support.

*‘The essence of mathematics is not to make simple things complicated, but to make complicated things simple.’ (Stan Gudder, Mathematician)*