Curriculum Intent

We believe mathematical intelligence is expandable, and that every child can learn mathematics, given the appropriate learning expectations and experiences within and beyond the classroom. Our curriculum map reflects our high expectations for every child. Every student is entitled to have the opportunity to master the key mathematical content for their age, by receiving the support and challenge they specifically need.

The principles underpinning our curriculum planning can be mapped to the school values:

Excellence

We encourage a deep understanding of the mathematical concepts expected at each stage. We achieve this by allowing the pupils to represent concepts in a variety of different ways and by revisiting topics via retrieval tasks and by revisiting topics at successively deeper levels. Although the department's priorities are wide, a key focus is promoting excellent exam results for each individual student so their options are broad for when they leave school.

Resilience

We encourage resilience in students so that their work is consistent throughout each year. Some revision for key assessments is given on-line and most students will always have a 'next task' available to stretch them further and encourage greater progress. We strive always to provide a pathway to success for every student at every stage. We encourage resilience through an increased focus on problem solving in most areas of the curriculum.

Independence

We encourage students to be independent by providing individual expectations for the work that should be completed and the concepts that should be mastered. We encourage good mathematical communication for each individual student, especially in their written communication.

Teamwork

We encourage students to work in teams both in classroom discussions and some classroom activities as well as special-event activities.

Respect

We encourage students to have a clear understanding of what their school and maths lessons hope to achieve in terms of learning and progress. We expect students to respect beauty of maths, the work done by many previous generations, the usefulness of maths to themselves, and the usefulness of maths to the society they live in. We expect students to respect their learning environment both for their own sake and for those around them. We expect students to respect their own potential by giving them high targets and clear expectations.

Creativity

We encourage students to sense the artistry in mathematical concepts and in the work of mathematics from previous generations. We encourage students to appreciate and develop an elegance both in argument and communication. We encourage imagination as the curriculum moves between concepts and as students encounter problem solving tasks.

What we do:

Year 7 stay in their tutor groups for the first half term. After half-term, students are set in three ability strands based on their Year 6 Scaled Score.

Each topic ends in a topic review and every term has a larger Aiming High assessment covering multiple topics. Based on the results of the larger Aiming Higher assessments there are occasional movement of students between sets.

Why we do it:

We keep students in tutor groups for the first half term to help them settle in to their new school.

We place students in ability sets thereafter as the gulf between the most able and the weakest in maths is already large when students start Year 7. The most-able students are stretched further in Higher sets whereas the weakest students are offered more support in the Foundation sets that have the fewest number of students.

We order the topics in such a way as to cover the full curriculum whilst striving for variety by alternating between the different topic strands of Number, Algebra, Shape and Space, Ratio and Proportion, and Data Handling and Probability.

Methods of deepening and securing knowledge:	
Spaced practice	Nearly all topics are visited on multiple occasions throughout the five years of Maths provision. This is sometimes to re-visit topics in preparation for assessments. On other occasions it is to prepare for the learning of deeper and more challenging learning within the same concept area.
Retrieval practice	Most lessons have a task at the start or during the lesson that involves a re-visiting of topics and concepts that have taught previously.
Interleaving	Most topics are visited on multiple occasions throughout the five years of Maths provision as they linked to new areas of learning and other concepts that are brought together in larger assessments. There are also concepts that occur in different subjects across the school that link the Maths curriculum with the curriculum of other subjects across the school.
Concrete examples	There are many abstract concepts taught throughout the Maths curriculum. In the teaching of many of these concrete examples are used either to make them more accessible or because of the requirements of assessments.
Dual coding	Students will encounter many examples of graphical or diagrammatic representations of numbers and mathematical concepts.

	Autumn term 1	Autumn term 2	Spring term 1	Spring term 2	Summer term 1	Summer term 2
Topic(s) HIGHER	Area and Perimeter Number Work Polyominoes	Topic 1 - Whole Numbers and Decimals Topic 2 - Measures, Perimeter and Area Topic 3 - Expressions and Formulae	Topic 4 - Fractions, Decimals and Percentage Topic 5 - Angles and 2D Shapes Topic 6 - Graphs Topic 7 – Whole number calculations	Topic 8 – Statistics Topic 9 - Transformations and Symmetry Topic 10 - Equations	Topic 11 - Factors and Multiples Topic 12 – Constructions and 3D shapes Topic 13 - Sequences	Topic 14 – Decimal calculations Topic 15 - Ratio and Proportion Topic 16 - Probability
INTERMEDIATE	Area and Perimeter Number Work Polyominoes	Topic 1 - Whole Numbers and Decimals Topic 2 - Measures, Perimeter and Area Topic 3 - Expressions and Formulae	Topic 4 - Fractions, Decimals and Percentage Topic 5 - Angles and 2D Shapes Topic 6 - Graphs Topic 7 – Whole number calculations	Topic 8 – Statistics Topic 9 - Transformations and Symmetry Topic 10 - Equations	Topic 11 - Factors and Multiples Topic 12 – Constructions and 3D shapes Topic 13 - Sequences	Topic 14 – Decimal calculations Topic 15 - Ratio and Proportion Topic 16 - Probability
FOUNDATION	Area and Perimeter Number Work Polyominoes	Topic 1 - Whole Numbers and Decimals	Topic 4 - Fractions, Decimals and Percentage	Topic 8 – Statistics	Topic 11 - Factors and Multiples	+Topic 14 - Multiplying and Dividing

		Topic 2 - Measures, Perimeter and Area Topic 3 - Expressions and Formulae	Topic 5 - Angles and 2D Shapes Topic 6 - Graphs Topic 7 - Adding and Subtracting	Topic 9 - Transformations and Symmetry Topic 10 - Equations	Topic 12 – Constructions Topic 13 - Sequences	Topic 15 - Ratio and Proportion Topic 16 - Probability
Assessment		Topic Reviews Aiming High 1 Review	Topic Reviews	Topic Reviews Aiming High 2 Review	Topic Reviews	Topic Reviews Aiming High 3 Review

Parental support:
Students will typically receive homework on a weekly basis. Parents are requested to check and sign the student's planner. Students have a unique login for the mathswatch website and parents can ask students, on a regular basis, to login and show the progress that they are making. Students have a list of equipment required for school listed in their planners. Parents can check on a regular basis that students have this equipment and nothing has been broken or lost. It is important, in Maths, that students have a scientific calculator and these are available in the on-line school shop (on a not-for-profit basis). We recommend that the name of the student is written in permanent pen on both the calculator and its lid.