

INTENT

The ambitious curriculum in Mathematics will provide students with opportunities to develop skills linked to numerical thinking, as well as an awareness of the application of numerical, geometric and abstract algebraic

Bilton School Planning for Progress over Time Programme of Study

The bigger picture:

We look to develop the following skills in our mathematicians:

FLUENCY • Quick and accurate recall of key facts • Knowledge/selection of appropriate techniques/strategies.

REASONING • Applying logical thinking to a situation to derive the correct problem solving strategy • The bridge between fluency and problem solving.

PROBLEM SOLVING • Finding a way to apply knowledge and skills to answer unfamiliar types of problems.

This skill sets allows our learners to flourish with the skills needed to function in an ever evolving world.

IMPLEMENTATION

Year 7	1	2	3	3a	4	5	6	7	8	9	10	11	12
Topic	Whole numbers and decimals	Measures, perimeter and area	Expressions and formulae	Negative Numbers	Fractions, decimals and %	Angles and 2D shapes	Graphs	Whole Number Calculations	Statistics	Transformation and Symmetry	Equations	Factors and Multiples	3D Shapes
Progress and assessment	End of topic assessments completed using end points as the assessment criteria.												
Homework	Set on Classcharts and will re-enforce the work completed in class.												
Literacy (including reading)	Key words issued at the start of every topic. 'Two for Two' and 'Three for Three' shared with students. Problem solving questions integrated into lessons.												
Social, Moral, Spiritual and Cultural Development	To convert units of measurement. To be fluent in calculating percentages and fractions of amounts. To interpret charts.												
British Values and Cultural Capital	Use MWB in classrooms to develop independence, self-esteem and build confidence. Within lessons, respect is encouraged and anything other than this is challenged. Mistakes are welcomed and used as discussion points to address misconceptions. A variety of approaches to solving problems are taught and discussed. Students are encouraged to develop resilience (linked to developing life-long learners). Students are given a choice of tasks in lessons (red, amber, green/bronze, silver, gold) often linked to their levels of learning. E-safety is promoted through blended learning opportunities (MathsWatch)												
End Points	To order negative numbers	To know metric measures	To collect like terms	To subtract with negatives	To add and subtract fractions	To draw angles and lines accurately	To plot straight-line graphs from a table of values	To multiply and divide by powers of 10	To draw pie charts	To rotate a shape about a point	To solve one step equations involving addition or subtraction	To know and work out square roots	To recognise nets of 3D shapes
	To multiply and divide integers	Converting between metric units	To use the laws of indices	To multiply with negatives	To convert decimals and fractions	To use angle facts to calculate angles	To draw straight-line graphs	To do mental multiplication and division	To understand and draw line graphs	To recognise and describe rotational symmetry	To solve one step equations involving multiplication or division	To recognise prime numbers	To find surface area of a cuboid
	To be able to use mental methods of addition and subtraction of integers (including negatives) and decimals	To calculate perimeter of shapes	To use a formula	To divide with negatives	To find fraction of a quantity	To calculate angles in a triangle	To use real life graphs	To use written methods of multiplication	To find mode, median and range from a data list	To translate shapes	To solve two-step equations	To find LCM and HCF	To find volume of 3d shapes by counting cubes
	To be able to use written methods of addition and subtraction of integers (including negatives) and decimals	To find area by counting squares	To write a formula		To calculate percentage of an amount	To know the properties of triangles		To use written methods of division	To find the mean of a data list	To tessellate shapes			To find volume of a cuboid and use formula
	To use a calculator	To find area of a rectangle using the formula			To convert fraction, decimals and percentages	To know the properties of quadrilaterals		To use calculator methods for complex calculations	To find averages from frequency tables				
		To find area of a triangle using the formula				To know the properties of polygons			To interpret graphs and charts				
		To find the area of a parallelogram using the formula							To plan a statistical enquiry				
									To collect data				
									To organise data using tally charts and frequency tables				
									To comparing data from lists or diagrams				