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 8	13	14	15	16	1	2	3	4	5	6	8
Topic	Sequences	Decimal Calculations	Ratio and Proportion	Probability	Whole number and decimals	Measure, Perimeter and Area	Expressions and Formulae	Fractions, Decimals and Percentages	Angles	Graphs	Statistics
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 if 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 interpret the display on a calculator (including money). To compare quantities (best buy). To estimate calculations. To convert between metric and imperial measurements. To work out area and perimeter. To calculate speed. To interpret real life graphs and to analyse data.										
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 lifelong 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 continue a sequence	To use mental methods to multiply and divide decimals	To write a proportion as a fraction or %	To know and use the probability scale	To round numbers to Powers of 10	To convert between units of lengths, weights and capacity	To collect like terms	To change from mixed number to improper fractions	To use angles in parallel lines	To create a table of values for a given equation	To organise data into frequency tables
	To find a sequence rule	To use written methods of multiplying decimals	To increase or decrease in direct proportion	To know the vocab of probability	To round numbers to decimal places and significant figures	To convert between units of area and volume	To expand a single bracket	To add and subtract fractions	To know angle properties of a triangle	To draw a straight-line graph from a table of values	To represent data in charts and diagrams
	To use term-to-term rules	To use written methods of dividing decimals	To use ratio to compare two quantities	To list outcomes	To know factors, multiples and primes	To convert between metric and imperial units	To factorise into a single bracket	To multiply fractions	To know angle properties of a quadrilateral	To know and use equation of a straight line	Plot scatter graphs and describe correlation
	To use sequences from patterns	To interpreting a calculator display of decimals	To divide in a given ratio	To calculate theoretical probability	To express a number as a product of prime factors	To find area and perimeter of a 2-D shape	To simplify as algebraic fraction	To divide fractions	To find interior angle of a polygon	To find gradient of a straight-line graph	To find averages from frequency tables
			To solve ratio and proportion problems	To use experimental probability	To use estimation and approximation	To find circumference of a circle	To substitute into formulae in context	To convert decimals and fractions	To find exterior angles of a polygon	y-intercept of a straight-line graph	To estimate averages from tables
			To find percentage increase and decrease	To identify sets		To find area of a circle	To rearrange formulae	To calculate % of an amount	To identify congruent shapes	To use the equation y=mx+c	To compare data sets
				To draw and interpret Venn diagrams		To find compound measures - speed, pressure and density	To use a formula to draw a graph	To find % increase and decrease		To re-arrange into the form y=mx+c	
										To interpret real-life graphs	
										To interpret and draw distance-time graphs	
										To interpret and draw a time series	