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 12	1-S	2-S	3-S	4-S	5-S	6-S	7-S	2-S (Yr 2)
Topic	Data Collection	Measures of Location and Spread	Representation of Data	Correlation	Probability	Statistical distributions	Hypothesis Testing	Conditional Probability
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)	Problem solving questions integrated into lessons.							
Social, Moral, Spiritual and Cultural Development	To model real world situations using mathematics							
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	Populations and samples	Measures of central tendency	Outliers	Correlation	Calculating probabilities	Probability distributions	Hypothesis testing	Set notation
	Sampling	Other measures of location	Box plots	Linear regression	Venn diagrams	The binomial distribution	Finding critical values	Conditional probability
	Non-random sampling	Measures if spread	Cumulative frequency		Mutually exclusive and independent events	Cumulative probabilities	One-tailed tests	Conditional probabilities in Venn diagrams
	Types of data	Variance and standard deviation	Histograms		Tree diagrams		Two tailed tests	Probability formulae
	The large data set	Coding	Comparing data					Tree diagrams