Intent Sentence: To provide a high quality mathematics education and a passion for problem solving.

- a foundation for understanding the world,
- the ability to **reason** mathematically,
- to apply knowledge to **problem solving** in the real world

- an appreciation of the power of mathematics and its intricacies,
- a sense of enjoyment and curiosity about the subject.
- To be **fluent** in key mathematical concepts.

Intent

What are we trying to achieve?

Confident Communicators	Knowledgeable and Expert Learners	Committed Community Contributors	Future-Ready Young People
In Maths, we regularly ask students to articulate how and why they have arrived at their solutions . This encourages oracy skills which are further developed in their written answers. Solutions are presented in clear steps linking to reasoning in context.	*Using expert teachers as guides, our students are encouraged to develop a detailed knowledge of the overview of Maths as well as focused learning on key topics such as ratio. Our use of assessment grids creates confidence in this learning.*	*In Maths, we enrich learners experiences through the UKMT challenges, stretch and challenge events, puzzle group , financial literacy and further reading materials. We also provide students with opportunities to develop their cultural capital by keeping abrest of current affairs and incorporating into lessons as appropriate. For example, Business, finance, statistics.*	*Our Maths curriculum develops a range of employable skills: analysis and evaluation, problem solving, reasoning and logic. In addition we encourage discussion about careers that Maths could lead towards including clear links to CEIAG in our SOW.*

To be able to apply fluency, problem solving and reasoning to all aspects of mathematics:

 can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions. (AO3 – Solve problems within mathematics and in other contexts (31%))

 reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language (AO2 – Reason, interpret and communicate mathematically (28%))

 become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. (AO1 – Use and apply standard techniques (41%))

We will teach:

Number — Structure and calculation, fractions, decimals and percentages, measures and accuracy.

Algebra — Notation, vocabulary, manipulation, graphs, solving equations and inequalities, sequences.

Ratio, proportion and rates of change— Ratio problems, real life links fully embedded within problem solving.

Geometry and measure — Properties and constructions, mensuration and calculation, vectors.

Probability— Relative frequency, tree diagrams, theory and experiment.

Statistics—Averages, interpret and represent different types of graphs.