



# Mathematics



Archdiocese of Liverpool

**Curriculum intent:** It is the intention of St Gregory's Mathematics department to deliver a curriculum that will develop the skills set out in the National curriculum but will prepare pupils for the real world. Centred upon our belief 'Master your CRAFT, exceed your potential' our curriculum is designed to be accessible for all, challenging and enjoyable. Our five year scheme of learning enables students to build on prior knowledge; thus allowing for a smooth transition from primary years through to secondary and beyond. We want our students to leave St Gregory's with transferable skills that will enable them to solve problems, communicate, visualise, think analytically, self-regulate, reflect and more. It is through such skills that our students will not only function in society and the world of work but will become successful leaders and educators themselves having mastered their craft.

Coherence - breaking down problems into small interconnected steps

Representation and Structure – using concrete, pictorial and abstract ways to enable all pupils to access and solve problems

Analytical Thinking – providing opportunities for pupils to think through and share their ideas

Fluency and Variation – knowledge of key mathematical facts, enabling pupils to make connections and think flexibly.

Transferable Skills – equips pupils with the tools to tackle various situations in everyday life.

In doing this we endeavour to promote an appreciation of Mathematics as a creative and highly interconnected discipline. We aim to promote an appreciation of Mathematics as a creative and highly interconnected discipline providing the solution to some of history's most intriguing problems. Aiming to provide students with a sense of enjoyment and curiosity about the subject together with an appreciation of the beauty and power of Maths in different cultures.

We endeavour to provide support across a range of subjects with an emphasis on problem-solving and developing Mathematical fluency across the whole school curriculum, narrowing gaps that students may have with the basic numeracy skills essential within everyday life.

## Year 9

TERM 1

### Content

- Straight line graphs.
- Forming and solving equations.
- Testing conjectures.
- Three dimensional shapes.
- Construction and congruency.

### Concepts and Skills

- Reasoning with algebra.
- Constructing in 2 & 3 dimensions.

TERM 2

- Numbers
- Using percentages.
- Maths and money.
- Deduction.
- Rotation and translation.
- Pythagoras' theorem.

- Reasoning with number.
- Reasoning with geometry.

TERM 3

- Enlargement and similarity.
- Solving ratio and proportion problems.
- Rates.
- Probability.
- Algebraic representation.

- Reasoning with proportion.
- Representations and revision.

