The Maths department enhance students’ lives in the study of maths by fulfilling the St Joseph’s Mission statement, Living, loving, learning through Christ. We strive to make learning enjoyable, inspire a love of maths and a thirst for knowledge in our students, developing them as independent and enquiring learners. In order to achieve our aim, we endeavor to:

● Ensure all students make outstanding progress, regardless of their starting point.

● Ensure all maths lessons include relevant challenges, pupil engagement and a focus on celebrating success.

● Provide all students with the opportunity for meaningful dialogue to take place in lessons.

● Promote independent

● Provide mathematical tasks to deepen their understanding by representing concepts using objects, pictures, symbols and words.

● Help all students develop into creative, analytical and independent thinkers.

● Encourage all pupils to develop skills to enable them to

● Enable all students to develop mathematical language to strengthen conceptual understanding enabling students to explain and reason.

● Provide a supportive, engaging and challenging learning environment to help students achieve their very best.

● Provide students with opportunities to develop mathematical thinking skills and develop their confidence when problem solving.

● Prepare students for the world of Higher Education and work by guiding them to successful assessment at GCSE and raising their aspirations.

Topics covered in each year group

We follow the Mastery Program for Learning KS3

We follow the Edexcel 2 year Program of Learning for KS4.

. In years 7,8 and 9 students have 6 lessons a fortnight. In year 10, they have 7 lessons a fortnight and Y11 have 8 lessons.

Homework tasks are set on- line through SPARX Maths.

Year 7

The Year 7 curriculum is delivered in 15 Units building on prior learning at KS2 and links into key skills and knowledge needed at GCSE. All students cover the same Units, all units having a Support, a Core and an Extension element. Enrichment and problem solving are a regular feature of learning.

Autumn 1&2:

● Unit 1 – Sequences- we start with this to ensure students understand that learning in maths is sequenced.

● Unit 2 – Understand and use algebraic notation

● Unit 3 – Equality and equivalence

● Unit 4 – Place value and ordering integers and decimals

Unit 5 – Fraction, decimal and percentage equivalence

Spring 1&2:

● Unit 6 – Solving problems with addition and subtraction

● Unit 7 – Solving problems with multiplication and division

● Unit 8 – Fractions and percentages of amounts

● Unit 9 – Operations and equations with directed number

Unit 10 – Addition and subtraction of fractions

Summer 1& 2:

● Unit 11 – Constructing, measuring and using geometric notation

● Unit 12 – Developing geometry reasoning

Unit 13 – Developing number sense

● Unit 14 – Sets and probability

Unit 15 – Prime numbers and proof

● Consolidation and Revision

Assessment: students have knowledge checks at the start and end of each unit and 2 assessments per year on current and prior learning

Year 8

The Year 8 curriculum is covered in 17 Units building on prior learning at KS2, Y7 and links into key skills and knowledge needed at GCSE. All students cover the same Units, all units having a Support, a Core and an Extension element. Enrichment and problem solving are a regular feature of learning

Autumn 1&2:

● Unit 1 – Ratio and scale

● Unit 2 – Multiplicative change

● Unit 3 – Multiplying and dividing fractions

● Unit 4 – Working in the Cartesian plane

Unit 5 – Representing data

● Unit 6 – Representations: Tables and probability

Spring 1&2:

● Unit 7 – Brackets, equations and inequalities

● Unit 8 – Algebraic techniques: Sequences

● Unit 9 – Algebraic techniques: Indices

● Unit 10 – Developing number: Fractions and percentages

Unit 11 – Developing number: Standard index form

● Unit 12 – Developing number: Number sense

Summer 1& 2:

● Unit 13 – Angles in parallel lines and polygons

● Unit 14 –Area of trapezia and circles

Unit 15 – Developing geometry: Line symmetry and reflection

● Unit 16 – Reasoning with data: The data handling cycle

Unit 17 – Reasoning with data: Measures of location

● Consolidation and Revision

Assessment: students have knowledge checks at the start and end of each unit and 2 assessments per year on current and prior learning

Y10 Foundation

Half Term 1 & 2

Unit 1 – Congruence and Similarity

Unit 2 – Trigonometry

Unit 3 – Circles

Unit 4 – Equations and Inequalities

Unit 5 – Simultaneous Equations

Half Term 3&4:

Unit 6 – Ratio and Fractions

Unit 7 –Using percentages

Unit 8 – Probability

Unit 9 – Data

Half Term 5&6:

Unit 10 – Maths and Money

Unit 11 – Number

Unit 12 – Non-calculator Methods

Unit 13 – types of Number

Unit 14 – Indices and Roots

Consolidation and Revision

Y10 Higher

Half Term 1 & 2

Unit 1 – Congruence and Similarity

Unit 2 – Enlargement

Unit 3 – Trigonometry

Unit 4 – Equations and Inequalities

Unit 5 – Simultaneous Equations

Half Term 3&4:

Unit 6 – Angles and Bearings

Unit 7 –Circles

Unit 8 – Vectors

Unit 9 – Ratio

Unit 10 – Fractions

Unit 11 – Percentage and Interest

Unit 12 - Probability

Half Term 5&6:

Unit 12 – Data

Unit 13 – Non-calculator Methods

Unit 14 –Types of number

Unit 15 – Sequences

Unit 16 – Indices and Roots

Unit 17 – Manipulating Expressions

Consolidation and Revision

Y11 Foundation

Half Term 1 & 2

Unit 13 - Probability

Unit 14 - Multiplicative Reasoning

Unit 15 - Constructions, Loci and Bearings

Unit 16 - Quadratic Equations and Graphs

Unit 17 - Perimeter, Area and Volume

Half Term 3&4:

Unit 17 - Fractions and Indices

Unit 18 – Congruence, similarity and Vectors

Unit 19 – Further Algebra

Exam Technique and Problem Solving

Y11 Higher

Half Term 1 & 2

Unit 14 - Statistics

Unit 15 - Equations and Graphs

Unit 16 - Circle Theorems

Unit 17 - Further Algebra

Unit 18 - Vectors and Geometric Proof

Transformations of Trig Graphs

Half Term 3&4:

Exam Technique and Problem Solving

Resources

Please Click the following links to view the Learning Journey Roadmaps:

Maths Learning Journey