Stuart Bathurst Catholic High School

Mathematics Department

Long-term sequencing Year 7

The curriculum has been designed to ensure that students develop the skills required to be successful in reaching their goals. We want students to be numerate and understand the Mathematics of the world around them, whilst also having an appreciation and love of Mathematical concepts.

Problem solving is embedded from year 7 all the way through to year 13, with a 5-year SOW in year 7 to 11, based upon students' current level of knowledge and understanding. Teaching is based around a mastery curriculum, with links made between multiple topics. Students are first taught to fully understand the knowledge, and then given time to fully master the skill. Students are then given opportunities to apply their understanding and skills to practical applications. Each stage of students 5-year plan builds upon students' prior knowledge and seeks to develop this further. Our curriculum is designed to be fluid, data-led and student-centric, with it being adapted as and when necessary.

TERM 1:
STUDENTS MUST KNOW:

Sequences - identifying types of sequences, continuing sequences and finding missing terms.

Algebra - working with function machines, substituting into expressions.

Equivalence - understanding the equals sign, setting up equations, collecting like terms.

Place value - rounding, recognising numbers up to a billion, working with powers of 10, range and median.

FDP - converting between FDP, working with percentages including those greater than 1.

HOW THIS WILL BE ASSESSED:
End of unit assessments at least twice a half term.
Learning review windows twice a year.
Formative assessment in lessons - mini white boards.

TERM 2:
STUDENTS MUST KNOW:

Addition and Subtraction - Formal and mental methods for addition/subtraction, perimeter, financial maths, frequency trees, bar chart and line charts.

Multiplication and division - recognise factors and multiples, use formal methods of division and multiplication, converting metric units, area of 2D shapes, and solving problems with the mean.

Fractions and percentages - find a fraction and a percentage of an amount, when given the part or whole number.

Directed number - ordering directed number, four operations with directed number, introducing two-step equations.

Fraction addition and subtraction - representing fractions, adding/subtracting with the same denominator, adding/subtracting with different denominators, adding/subtracting mixed numbers.

HOW THIS WILL BE ASSESSED:
End of unit assessments at least twice a half term.
Learning review windows twice a year.
Formative assessment in lessons - mini white boards.

TERM 3:
STUDENTS MUST KNOW:

Construction - draw and measure angles up to 360, recognise parallel and perpendicular lines, identify polygons up to a decagon, interpret simple pie charts and construct triangles.

Geometric reasoning - angles around a point, angles on a straight line, vertically opposite angles, sum of angles in triangles, quadrilaterals and other polygons, investigate angles in parallel lines.

Number sense - Mental strategies for working with integers, fractions and decimals, and estimation.

Sets and probability - represent sets, create and interpret Venn diagrams, use of probability vocabulary, creating sample space diagrams, calculating single events and working with probabilities adding to 1.

Primes and proofs - recognise factors, multiple, primes and square/triangular numbers, find the HCF and LCM, write a number as a product of its primes.

HOW THIS WILL BE ASSESSED:
End of unit assessments at least twice a half term.
Learning review windows twice a year.
Formative assessment in lessons - mini white boards.

Home learning set will consist of a combination of: Weekly paper homework with retrieval and develop tasks, additional worksheets where appropriate.