Mathematics Department

Long-term Sequencing Year 9 Stage 3

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 an interleaved 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.

HALF TERM 1:	HALF TERM 2:	HALF TERM 3:
STUDENTS MUST KNOW:	**STUDENTS MUST KNOW:**	**STUDENTS MUST KNOW:**
Number Properties 1 All operations of integers, place value in big numbers/ordering fractions, BIDMAS **Geometry & Measures** Convert metric units, Read & interpret scales **Number Properties 2** Prime numbers, Factors, Multiples, HCF & LCM, Product of prime factors **Algebra 1** Collect like terms, Substitution into formulae	**FDP** Fractions of amount, Converting FDP, Percentage of amounts (Non-Calc), Increase and decrease percentage of amounts, Percentage change. **Approximations** Rounding to s.f, Estimate values **Algebra 2** Collecting like terms with more than one letter, Expanding single brackets with number outside, Solving equations with brackets. **Collecting & Interpreting Data** Averages from a list, Construct pie charts	**Sequences & Graphs** Generate sequences given nth term, Linear graphs, , Nth Term **Proportion 1** Simplifying Ratio, Writing Ratios and proportions, Sharing by a ratio (calc & non calc. **Ratio and Scale** Measuring Lines and Angles, Scale drawings, Maps, Scale factor of an enlargement **Shape Properties** Properties of regular polygons, Properties of triangles & quadrilaterals, Missing angles on a straight line, a triangle, a quadrilateral, and around a point, Lines of symmetry.
HOW THIS WILL BE ASSESSED: **Low stakes knowledge tests as starters** **End of unit assessments at the end of each half term** **Half termly assessments covering all previously learnt topics**	**HOW THIS WILL BE ASSESSED:** **Low stakes knowledge tests as starters** **End of unit assessments at the end of each half term** **Half termly assessments covering all previously learnt topics**	**HOW THIS WILL BE ASSESSED:** **Low stakes knowledge tests as starters** **End of unit assessments at the end of each half term** **Half termly assessments covering all previously learnt topics**

Stuart Bathurst Catholic High School

HALF TERM 4: STUDENTS MUST KNOW:	HALF TERM 5: STUDENTS MUST KNOW:	HALF TERM 6: STUDENTS MUST KNOW:
Algebra 3 Substitution into formulae, Change the subject of formulae **Transformations** Rotational and reflectional symmetry. Reflect, rotate & translate shapes. **Probability** Probability of events as fractions, Simple sample space, experimental probability	**Triangles and Congruency** Perpendicular bisector of a line segment, constructing a perpendicular to a given line from/at a given point, bisecting a given angle **Interpreting Data** Plot coordinates, Scatter Graphs **Circles** Area of 2d shapes, Circumference of a circle, Area/Perimeter of compound shapes.	**Proportion** Simple Direct and inverse proportion, Compound Interest **Equations & Inequalities** Solving 1,2 step equations and including brackets. Form & solve equations. **Plotting and Sketching Graphs** Linear Graphs using y =mx + c, Quadratic graphs, Conversion graphs.
HOW THIS WILL BE ASSESSED: **Low stakes knowledge tests as starters** **End of unit assessments at the end of each half term** **Half termly assessments covering all previously learnt topics**	**HOW THIS WILL BE ASSESSED:** **Low stakes knowledge tests as starters** **End of unit assessments at the end of each half term** **Half termly assessments covering all previously learnt topics**	**HOW THIS WILL BE ASSESSED:** **Low stakes knowledge tests as starters** **End of unit assessments at the end of each half term** **Half termly assessments covering all previously learnt topics**
Home learning set will consist of a combination of: Weekly Sparx tasks (due each Wednesday) and additional worksheets where appropriate.		