



SAINT JOHN WALL CATHOLIC SCHOOL

A Catholic School For All



Departmental Schemes of Work

Curriculum Intent: “To educate each and every unique child in our care to hear and respond to what God calls them to be”.

KS4 Maths



Year 9 Maths Scheme of Work Overview

Sequencing of topics	Autumn term 1:	Foundation: (1a) Integers and place value, (1b) Decimals, (1c) Indices, powers and roots, (1d) Factors, multiples and primes. Higher: (1a) Calculations, checking and rounding, (1b) Indices, roots, reciprocals and hierarchy of operations, (1c) Factors, multiples and primes, (1d) Standard form and surds.	Spring term 2:	Foundation: (3d) Scatter graphs, (4a) Fractions, (4b) Fractions, decimals and percentages. Higher: (4a) Fractions, (4b) Percentages.
	Autumn term 2:	Foundation: (2a) Algebra: the basics, (2b) Expanding and factorising single brackets, (2c) Expressions and substitution into formulae. Higher: (2a) Algebra: the basics, (2b) Setting up, rearranging and solving equations, (2c) Sequences.	Summer term 1:	Foundation: (4c) Percentages, (5a) Equations, (5b) Inequalities. Higher: (4c) Ratio and proportion, (5a) Polygons, angles and parallel lines, (5b) Pythagoras' Theorem and trigonometry.
	Spring term 1:	Foundation: (3a) Tables, (3b) Charts and graphs, (3c) Pie charts. Higher: (3a) Averages and range, (3b) Representing and interpreting data, (3c) Scatter graphs.	Summer term 2:	Foundation: (5c) Sequences, (6a) Properties of shapes, parallel lines and angle facts. Higher: (5b) Pythagoras' Theorem and trigonometry, (6a) Graphs: the basics and real-life graphs, (6b) Linear graphs and coordinate geometry.
Calendared assessments	<ul style="list-style-type: none"> • Two Assessment week exams (Autumn Term and Summer Term). • 15 Topic Tests for their Learning Journals. • Argument and Proof Tasks 1 to 3 (one per term) and Geometric Reasoning Tasks 1 to 3 (one per term). 			
Personal Development <i>(Cross curricular, SJW Values, SMSCV, cultural capital)</i>	<p>The departmental focuses on promoting "Active and curious" on a daily basis through problem solving by developing effective questioning through explicitly encouraging the pupils to ask 'what if..', 'what do you think..', 'how do you know...' so they remaining active and curious in their search for new methods and solutions. Teamwork through peer assessment and group work underpins the schemes of learning.</p> <p>Students learn cross curricular skills which they will need to use appropriately in other subjects including tables, graphs, reading scales, units, equations, shapes and measures.</p> <p>Students work together in all areas of Mathematics to support each other and build mutual respect for one another.</p>			
Progression model	What knowledge will pupils develop? (Including key terminology)		What skills will pupils develop? (Including literacy & Numeracy)	
	The knowledge developed will depend on the starting level for different pupils. The aim is to build on the knowledge pupils bring to each topic by the use of diagnostic activities at the start of each unit of work to ensure that pupils are taking the appropriate next steps in their learning from their individual starting points.		Pupils focus on reading and writing for accuracy, analysing worded questions in different contexts. Representing – students explore problems, choosing between different representations involving constructing accurate diagrams. Analysing – drawing accurately annotated diagrams including scale drawings Interpreting – interpreting features of a diagram or other representation and relating those features to the context or situation represented.	
Development homework	Online development homework is set on Maths Watch each half term with a selection of practice questions on the topics which pupils have covered in lessons. Staff steer the pupils to appropriate sections at suitable times during the course.			