

Mathematics Curriculum Intent and Overview

To inspire the next generation to enjoy a deep understanding of mathematics and to become both independent and resilient learners who can apply their reasoning and problem-solving skills to life beyond De La Salle School.

Focus	Intent
Mastery	To develop a deeper understanding of mathematics which enables students to become fluent in mathematics.
Challenge	To challenge and stretch students in every lesson.
Embedding knowledge	To develop students' retrieval skills to embed cumulative knowledge.
Independent Learning	To develop students to become independent learners.
Problem Solving Skills	To develop reasoning and problem-solving skills to apply their mathematical skills to solve real life problems.
Progress Tracking	To closely monitor and track student progress throughout their five years at De La Salle School to ensure every student makes at least expected progress.
Academic Achievement	To continuously improve on the examination success for all our students.
Inspiration	To inspire the next generation of mathematicians to be prepared for life beyond De La Salle School

Curriculum outline: Years 7 and 8

	Autumn Term	Spring Term	Summer Term
7	- Sequences - Algebraic notation - Equality and equivalence - Place value and ordering - Fractions, decimals, and percentages - Addition and subtraction	- Multiplication and division (+ Volume and surface area) - Fractions and percentages of amounts - Directed numbers - Fractions	2D and 3D shapes - Angles - Developing number sense - Sets and probability - Factors, multiples, and primes
8	- Ratio - Multiplicative change - Multiplying and dividing fractions - Coordinates and graphs - Representing data - Probability - Brackets, equations and inequalities	- Sequences - Indices - Fractions and percentages - Standard form - Number sense	- Angles in parallel lines and polygons - Area - Transformations - The data handling cycle - Averages and range

Curriculum outline: Years 9 - 11

Year 9	Autumn Term	Spring Term	Summer Term
Higher Sets 1 & 2	• Calculations and rounding • Indices, roots and order of operations • Factors, multiples and primes • Standard form • Algebra: The basics • Equations • Formulae	• Inequalities • Sequences and drawing linear graphs • Averages and range • Collecting, representing and interpreting data • Fractions	• Percentages • Ratio and proportion • Probability 1 • Perimeter, area and circles
Intermediate Set 3	• Calculations and rounding • Indices, roots and order of operations • Factors, multiples and primes • Standard form • Algebra: The basics	• Equations • Formulae • Inequalities • Sequences and drawing linear graphs	• Averages and range • Collecting, representing and interpreting data • Fractions • Percentages
Foundation Sets 4 - 6	• Integers • Decimals • Indices, powers and roots • Factors, multiples and primes • Algebra: The basics	• Sequences • Averages and range • Representing and interpreting data	• Fractions • Fractions, decimals and percentages • Percentages 1 • Polygons and angles 1

Year 10	Autumn Term	Spring Term	Summer Term
Higher Sets 1 & 2	• Volume and surface area • Polygons and angles • Transformations • Scatter graphs • Constructions, loci and bearings • Pythagoras' Theorem and trigonometry • Compound measures	• Linear graphs • Real-life graphs and coordinate geometry • Quadratic, cubic and other graphs • Cumulative frequency, box plots and histograms • Circle theorems	• Probability 2 • Further trigonometry • Further graphs • Surds • Further algebra
Intermediate Set 3	• Ratio and proportion • Probability • Perimeter, area and circles • Volume and surface area • Polygons & angles	• Transformations • Scatter graphs • Constructions, loci and bearings • Pythagoras' Theorem and trigonometry	• Compound measures • Linear graphs • Real-life graphs and coordinate geometry
Foundation Sets 4 - 6	• Perimeter and area • 3D shapes, volume and surface area • Probability 1 • Ratio • Proportion • Equations	• Formulae • Inequalities • Transformations • Circles • Linear graphs	• Real life graphs • Scatter graphs • Statistics and sampling • Probability 2 • Construction, loci and bearings

Year 11	Autumn Term	Spring Term	Summer Term
Higher Sets 1 & 2	• Direct and inverse proportion • Similarity and congruence • Functions • Cones, spheres and pyramids • Accuracy and bounds • Quadratic and simultaneous equations	• Vectors • Exponential functions and geometric progressions • Trigonometric graphs and transformations of functions • Circle geometry	Exam preparation
Foundation Sets 3 - 6	• Indices and standard form • Percentages 2 • Compound measures • Angles 2 • Accuracy and bounds • Similarity and congruence • Pythagoras' Theorem • Vectors	• Quadratic, cubic and reciprocal graphs • Quadratics • Simultaneous equations • Trigonometry	Exam preparation