What will I learn in Maths?

Our Lady's Catholic High School

Year 11

Revision and exams

Algebra: expanding, factorising and functions

$y = ax^2 + bx + c$

Graphs: gradients, lines and non-linear graphs

Expressions: simplifying, identities and algebraic fractions

$\sqrt{4}$

Using number: non-calculator methods, types of number, sequences, indices and roots

Proportions and proportional change: ratios, fractions, percentages, interest and probability

Geometry: angles, bearings and working with circles/vectors

Communication: transforming and construction

Multiplicative, geometric and algebraic reasoning

Collecting, representing and interpreting data

Similarity: congruence, enlargement and trigonometry

Representations and revision: probability and algebraic representation

Reasoning with proportion: enlargement, similarity, solving ratio, proportion problems and rates

Year 10

Developing algebra: representing solutions of equations/ inequalities and simultaneous equations

Reasoning with geometry: deduction, rotation, translation and Pythagoras theorem

Reasoning with algebra: straight line graphs, forming/solving equations and testing conjecture

Reasoning with data: the data handling cycle and measures of location

Developing geometry: angles in parallel lines/polygons, area of trapezia/circles, line symmetry and reflection

Reasoning with Number: percentage and money

Year 9

Developing number: fractions, percentages, standard index form and number sense

Constructing in 2D and 3D: constructions and congruency

$a^2 + b^2 = c^2$

Algebraic techniques: brackets, equations, inequalities, sequences and indices

Reasoning with number: developing number sense sets, probability, prime numbers and proof

Proportional reasoning: ratio, scale, multiplicative change and multipling/dividing fractions

Lines and angles: constructing, measuring and using geometric notation and developing geometric reasoning

Year 8

Representations: working in the cartesian plane, representing data/tables and probability

Fractional thinking: additional and subtraction of fractions

%

≤

Application of number: addition, subtraction, multiplication, division, fractions and percentage of amounts

Place value and proportion: ordering integers, decimals, fractions, decimals and percentage equivalence

Algebraic thinking: sequences, algebraic notion, equality and equivalence

Directed number: operations and equations

Year 7