Subject Learning Journey:

Maths

Grace Academy Coventry

Year 13

Mechanics: Variable acceleration; Constant acceleration; Forces and motion; Modelling in Mechanics

Statistics: Hypothesis Testing; Probability; Probability Distributions

Pure Maths: Integration; Trigonometry; Parametric equations; Functions; Algebraic methods; Vectors; Differentiation; Sequences & series

Year 12

Pure Maths: Polynomial Equations and Inequalities; Circle Equations and Geometry; Binomial Expansion; Vectors; Integration; Exponentials and Logarithms; Algebraic Expressions and Methods; Graphs and Transformations; Algebraic Proof; Trigonometry and trigonometric equations; Differentiation

Statistics: Measures of Location and spread; Correlation; Data Collection; Representations of Data

Mechanics: Constant acceleration; Modelling in Mechanics; Forces and motion; Variable acceleration

Year 11

Term 2: Listing & Describing; Algebraic Reasoning; Multiplicative Reasoning; Transforming & Constructing; Geometric Reasoning

Term 1: Changing the Subject; Using Graphs; Gradients & Lines; Expanding & Factorising; Graphs

Year 10

Term 1: Congruence, Similarity & Enlargement; Trigonometry; Equations and Inequalities

Term 2: Simultaneous Equations; Angles and Bearings; Vectors; Circles; Ratio and Fraction; Probability

Term 3: Percentages; Representing and Interpreting Data; Sequences; Surds; Indices; Algebraic Fractions

Year 9

Term 3: Enlargement and Similarity; Probability; Rates; Ratio and Proportion

Term 2: Rotation and Translation; Problems Solving – Money; Numbers; Pythagoras' Theorem; Problems Solving – Angles and Shapes; Percentages

Term 1: 3D Shapes; Forming and Solving Equations; Graphs; Constructions; Expanding Brackets

Year 8

Term 1: Understand ratio; Problem solving – ratio; Graphs; Multiplying and Dividing Fractions; Representing data and probability

Term 2: Equations and Inequalities; Fractions and Percentages; Estimation; Algebraic Sequences and Indices; Standard Form

Term 3: Area of trapezium and circles; Angles in parallel lines & polygons; Data Handling; Averages and range

Year 7

Term 3: Developing Geometric Reasoning; Prime Numbers; Sets and Probability; Constructing and Measuring

Term 2: Addition and Subtraction of Fractions; Fraction and Percentage of Amounts; Problem Solving - Addition and Subtraction; Directed Numbers; Problem Solving - Multiplication and Division

Term 1: Place Value and Ordering Integers and Decimals; Understand Algebraic Notation; Fraction, Decimal and Percentage; Equality and Equivalence; Sequences

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