

Subject Curriculum Overview for Academic Year 2024/25

Subject: Mathematics		Subject Leader: Mr S Card	Year 11 Foundation	
Topic	Key Learning Points		Key Vocabulary	Assessments
Block 1 – Area and perimeter of circles	- Know and use the formula for circumference of a circle - Calculate the perimeter of semi-circles and composite shapes - Know and use the formula for the area of a circle - Calculate the area of quadrants and semi circles - Find the radius or diameter of a circle from its circumference or area - Know the formula for sector area and use it to solve problems - Find area of compound shapes involving circles		Circumference Radius Diameter Semi-circle Quadrant Sector	Unit Tests are completed at the end of each unit. An Autumn Mock is completed in November of Year 11. The Autumn Mock is paper one of a past GCSE paper. A Spring Mock is completed in February of Year 11. The Spring Mock is a full mock of all three past papers from a given year.
Block 2 – Volume and surface area	- Know the formula for the volume of a cuboid and be able to apply it - Know the formula for the volume of a prism and be able to apply it - Know the formula for the volume of a cylinder and be able to apply it - Find the surface area of cuboids - Find the surface area of basic prisms - Find the surface area of cylinders		Volume Prism Cylinder Surface area	
Block 3 – Percentage change	- Use a multiplicative method to calculate percentages - Solve reverse percentage problems - Use multipliers to solve percentage change problems - Solve repeat and compound percentage problems - Solve reverse percentage change problems - Know and use the formula for percentage change		Multiplier Simple interest Compound interest Percentage change	
Block 4 – Indices and standard form	- Know the laws of indices - Simplify expressions using the laws of indices - Understand the meaning of negative indices - Write numbers in standard form and take numbers out of standard form - Add and subtract numbers given in standard form - Multiply and divide numbers given in standard form		Coefficient Index/Indices Standard form	

Subject Curriculum Overview for Academic Year 2024/25

Block 5 – Inequalities and expressions	• Write inequalities to represent given information • Represent inequalities on number lines • List the integer values that satisfy an inequality • Solve linear inequalities • Solve inequalities that require multiplying or dividing by a negative • Expand double brackets	Inequality Integer Linear	
Block 6 – Pythagoras theorem	• Know Pythagoras theorem and how it relates sides in right angled triangles • Use Pythagoras theorem to find the length of hypotenuses • Use Pythagoras theorem to find shorter sides of triangles • Calculate areas of non-right-angled triangles using Pythagoras • Solve problems involving multiple triangles using Pythagoras • Identify whether a triangle is right angled using Pythagoras	Hypotenuse Pythagoras' theorem	
Block 7 – Compound measures	• Convert between different units of time • Know the formula for speed and understand its different units • Find distance travelled and time taken when given a speed • Draw distance time graphs to represent journeys • Know the formula for density and use it to solve problems • Know the formula for pressure and use it to solve problems	Compound measure Speed Density Pressure Population density Force	
Block 8 – HCF, LCM and prime factorisation	• Find multiples and common multiples by listing • Find factors and common factors by listing • Know and use the definitions of prime and composite numbers • Find prime factors and write prime factor decomposition of numbers • Calculate the lowest common multiple using prime factors • Calculate the highest common factor using prime factors	Factor Multiple Common Composite Prime Prime factor	

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Block 9 – Probability and similar shapes	• List outcomes systematically to help find probabilities • Use sample space diagrams to find probabilities • Construct tree diagrams to show how events can be combined • Calculate probabilities of independent events using tree diagrams • Enlarge shapes using integer and fractional scale factors • Solve problems involving similar shapes by finding scale factors	Sample space diagram Tree diagram Enlargement Centre of enlargement Scale factor Similar	
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