Stanborough

Curriculum Map
Subject: Maths

Year Group: 9 Accelerated

Time Period	Autumn Term		Spring Term		Summer Term	
Content	• Area and circumference of circles • Ratio and proportion • Angles and polygons • Pythagoras' theorem • Algebraic manipulation	• Using data • Circle theorems • Decimal numbers • Equations and formulae	• Surface area and volume of cylinders • Trigonometry in right-angled triangles • Compound units • Coordinates and linear graphs	• Percentages • Surds • Sequences • Plans and elevations	• Quadratic graphs • Transformations and enlargement • Fractions • Probability and Venn diagrams	• Similar triangles and relationship between linear, area and volume scale factors in similar solids • Compass and ruler constructions and loci problems
Skills	**Number** Solve problems using estimation and rounding (to d.p. and sf), calculating error intervals and bounds, work with both positive and negative powers of ten **Ratio, proportion and rates of change** solve problems using equivalent ratios, share an amount in a ratio, solve real life problems (e.g. recipes, currency exchange, best buy), solve problems using the unitary method to solve problems, solve simple problems on inverse proportion **Algebra** form expressions, expand two or more brackets, factorise into single and double (quadratics) brackets, including difference of two squares, solve simple linear equations and more complex ones involving brackets, fractions and unknown on both sides **Geometry** apply angle facts in parallel lines and polygons to solve problems stating reasons for the answers, apply Pythagoras' theorem to calculate missing lengths in right-angled triangles, solve circle geometry problems using circle theorems, calculate volume and surface area of cylinders and other prisms **Probability and statistics** solve problems on combined events using frequency diagrams and probability tree diagrams, calculate averages and range from raw data		**Numbers** calculating percentage increase/decrease using multipliers, calculating percentage change and original amount (reverse percentages) in percentage change problems, simplify surds, expand single and double brackets involving surds **Ratio, proportion and rates of change** perform distance, speed and time calculations, know the difference between and calculate simple and compound interest **Algebra** generate sequences and find the Nth-term of linear and quadratic sequences , recognise and plot equations of vertical/horizontal/diagonal lines, calculate the gradient from a graph, identify gradient and y-intercept from an equation of a line, work out the equation of a line from its graph, calculate the midpoint of a line segment **Geometry** calculate area and circumference of circles, calculate the radius/diameter given the area or circumference, draw plans and elevations of 3D shapes, draw 3D shapes using plans and elevations		**Number** add, subtract, multiply, divide mixed numbers, simplify algebraic fractions **Algebra** draw quadratic graphs and identify turning point and roots from the graph **Geometry** translate, reflect, rotate, enlarge (including enlargement with fractional scale factors) 2D shapes on a pair of coordinate axes, recognise and work with scale factors in similar triangles, solve problems on similar solids using the relationship between liner, area and volume scale factors, perform compass and ruler constructions and solve loci problems **Probability and statistics** use Venn diagrams and probability tree diagrams to calculate probabilities for combined events, estimate the mean average from grouped data, draw and interpret scatter graphs	
Assessment week and content	wb 13th November 2023 Circles- area and circumference, Ratio and proportion, Angles and polygons, Pythagoras' theorem, Algebraic manipulation, Equations and formulae, Using data, Decimal numbers (students will also be give a topic list with reference to MathsWatch clips to support them with revision)		wb 5th February 2024 Circle theorems, Surface area and volume of cylinders, Trigonometry in right-angled triangles, Compound units, Coordinates and linear graphs, Percentages, Surds (students will also be give a topic list with reference to MathsWatch clips to support them with revision)		wb 15th April 2024 All the content covered over the year (students will also be give a topic list with reference to MathsWatch clips to support them with revision)	

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