

| Term | Topic(s) | Assessed work | Additional details |
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| 1 a 7 weeks 28_lessons | <p>Straight line graphs</p> <ul style="list-style-type: none"> Using table of values Compare gradients and intercepts Write an equation in the form $y=mx+c$ Find the equation of a line from a graph Interpret gradient and intercepts of real-life graphs Model real-life graphs involving inverse proportion Explore perpendicular lines <p>Forming and solving equations</p> <ul style="list-style-type: none"> Inequalities with negative numbers Solve equations with unknowns on both sides Solve inequalities with unknowns on both sides Solving equations and inequalities in context Substituting into formulae and equations Rearranging formulae (one-step) and (two step) Rearrange complex formulae including brackets and squares Algebra <p>Testing Conjectures</p> <ul style="list-style-type: none"> Show that... Conjectures about number Expand a pair of binomials Conjectures with algebra Explore the 100 grid | <p>White Rose (Flashback and End of block assessment) Diagnostic Quizzes Classwork Homework</p> | <p>Revisit:</p> <ul style="list-style-type: none"> - Lines, parallel to the axes, $y=x$ and $y=-x$ - Solve one and two-step equations and inequalities - Solve one and two-step equations and inequalities with brackets - Factors, multiples and primes |
| 1b 7 weeks 28_lessons | <p>Three-dimensional shapes</p> <ul style="list-style-type: none"> Know names of 2-D and 3-D shapes Recognise prisms Accurate nets of cuboids and other 3-D shapes sketch and recognise nets of cuboids and 3-D shapes plans and elevations Surface area of cubes and cuboids surface area of triangular prisms surface area of a cylinder volume of cubes and cuboids Volume of other 3-D shapes - prisms and cylinders Explore volumes of cone, pyramids and spheres <p>Constructions and Congruency</p> <ul style="list-style-type: none"> Locus of distance from a point/ straight line/shape Locus of points equidistant from two points construct a perpendicular bisector Construct a perpendicular from/to a point Locus of distance from two lines Construct an angle bisector Identify/ explore congruent figures/triangles <p>Numbers</p> <ul style="list-style-type: none"> Integers, real and rational numbers Understand and use surds Solve problems with integers and decimals Solving problems with fractions | <p>White Rose (Flashback and End of block assessment) Diagnostic Quizzes Classwork Homework</p> | <p>Revisit:</p> <ul style="list-style-type: none"> - Find area of 2-D shapes - Draw and measure angles - Construct and interpret scale drawings - Construct triangles from given information - Work with directed number - HCF and LCM - Adding and subtracting fractions - Multiplying and dividing fractions - Numbers in standard form |
| 2a 6 weeks 24_lessons | <p>Using percentages</p> <ul style="list-style-type: none"> Solve 'reverse' percentage problems Recognise and solve percentage problems (non-calc) Solve problems with repeated percentage change <p>Maths and Money</p> <ul style="list-style-type: none"> Solve problems with bills and bank statements Calculate simple interest Calculate compound interest Solve problems with VAT Calculate wages and taxes Solve problems with exchange rates Solve unit pricing problems <p>Deduction</p> <ul style="list-style-type: none"> Solving angles problems (using chains of reasoning) Angles problems with algebra Conjectures with angles Conjectures with shapes Link constructions and geometrical reasoning | <p>White Rose (Flashback and End of block assessment) Diagnostic Quizzes Classwork Homework</p> | <p>Revisit:</p> <ul style="list-style-type: none"> - Use the equivalence of fractions, decimals, and percentages - Calculate percentage increase and decrease - Express a change as a percentage - Recognise and solve percentage problems (calc) - Angles in parallel lines |

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| <p>2b 6 weeks 24_lessons</p> | <p>Rotation and Translation</p> <ul style="list-style-type: none"> Identify the order of rotational symmetry of a shape Compare and contrast rotational symmetry with line symmetry Rotate a shape about a point on and not on a shape Translate points and shapes by a given vector Compare rotation and reflection of shapes Find the result of a series of transformations <p>Pythagoras</p> <ul style="list-style-type: none"> Identify the hypotenuse of a right-angled triangle Determine whether a triangle is right angled Calculate the hypotenuse of a right-angled triangle Calculate missing sides in right-angled triangles Use Pythagoras' theorem on coordinate axes Explore proofs of Pythagoras' theorem Use Pythagoras' theorem in 3-D shapes Length, area and volume | <p>White Rose (Flashback and End of block assessment) Diagnostic Quizzes Classwork Homework</p> | <p>Revisit: - Squares and square roots</p> |
| <p>3a 6 weeks 24_lessons</p> | <p>Enlargement and Similarity</p> <ul style="list-style-type: none"> Recognise enlargement and similarity Enlarge a shape by a positive/ negative integer scale factor Enlarge a shape by a positive integer scale factor from a point Enlarge a shape by a positive fractional scale factor Work out missing sides and angles in a pair of given similar shapes Solve problems with similar triangles Explore ratios in right-angled triangles. <p>Solving ratio and proportion problems</p> <ul style="list-style-type: none"> Solve problems with inverse proportion Graphs of inverse relationships Solve 'best-buy' problems Solve problems ratio and algebra <p>Rates</p> <ul style="list-style-type: none"> Solve speed, distance and time problems with/ without a calculator Use distance/time graphs Solve problems with density, mass and volume Solve flow problems and their graphs Rates of change and their units Convert compound units | <p>White Rose (Flashback and End of block assessment) Diagnostic Quizzes Classwork Homework</p> | <p>Revisit - Solve problems with direct proportion - Direct proportion and conversion graphs - Solve ratio problems given the whole or part</p> |
| <p>3b 7 weeks 28 lessons</p> | <p>Revision</p> <p>Probability</p> <ul style="list-style-type: none"> Relative frequency - include convergence Expected outcomes Independent events Use tree diagrams Use tree diagrams to solve 'without replacement' problems Use tree diagrams to work out probabilities <p>Algebraic representation</p> <ul style="list-style-type: none"> Draw and interpret quadratic graphs Interpret graphs, including reciprocal and piece-wise Investigate graphs of simultaneous equations Represent inequalities | <p>End of year exams Curriculum enrichment week</p> | <p>Revisit - Single event probability</p> |