

Term	Autumn 1
Topics Covered	Straight line graphs. Forming and solving equations. Testing conjectures.
Expectations Challenge and Support	<p><u>Expectations</u>- Interpreting straight line graphs. Finding the equation of a straight line. Compare to linear sequences and finding the rule for the nth term. Using all previous contexts: angles, probability, area. Conjectures about odd and even numbers, primes. Is a given term in a sequence? Are these lines parallel? What would happen if.. .?</p> <p><u>Challenge</u>- Solving simultaneous equations graphically. Changing the subject of a formula.</p> <p><u>Support</u>- Coordinate plotting and reading in four quadrants. Drawing straight line graphs.</p>
Assessment opportunities	End of unit assessment and feedback given on blue star sheet.
Homework	Autumn 1 Homework booklet
Vocabulary	Linear graphs, gradient, intercept, equation, term, term-to-term rule, nth term rule, parallel, integer, prime, odd, even.

Term	Autumn 2
Topics Covered	Three dimensional shapes. Constructions and congruency, numbers and percentages
Expectations Challenge and Support	<p><u>Expectations</u>- Faces, edges and vertices. Names of prisms and non-prisms. Identifying 2D shapes within 3D shapes. Volume and surface area of cuboids and cylinders. Volume of any prism. Nets. Scale drawing. Constructing perpendiculars and bisectors. Exploring congruency via construction. Types of number. Fraction arithmetic. HCF and LCM. Standard form. Percentage increase and decrease (revisit). Percentages over 100%. Percentage changes. Multipliers in a variety of contexts.</p> <p><u>Challenge</u>- Converting between volume. Units. Surface area of any prism. Loci. Reverse percentages.</p> <p><u>Support</u>- Naming 2D shapes. Special triangles. Special Quadrilaterals.</p>
Assessment opportunities	End of unit assessment and feedback given on blue star sheet.
Homework	Autumn 2 Homework booklet
Vocabulary	Face, edge, vertex, vertices, triangular, cross-sectional area, net, scale drawing, perpendicular, bisector, protractor, pair of compasses, straight-edge, congruent, similar.

Term	Spring 1
Topics Covered	Maths and money, deduction, rotation and translation
Expectations Challenge and Support	<p><u>Expectations-</u></p> <ul style="list-style-type: none"> <li>• Explore financial maths including bills and bank statements, interest and unit pricing (best buys)</li> <li>• Revisit angle rules including within special quadrilaterals</li> <li>• Find angles using algebraic methods</li> <li>• Use chains of reasoning to evaluate angles</li> <li>• Identify the order of rotational symmetry of a shape</li> <li>• Find the result of rotating a shape</li> <li>• Translate points and shapes by a given vector</li> <li>• Understand variance and invariance in the context of transformations</li> </ul> <p><u>Challenge-</u></p> <ul style="list-style-type: none"> <li>• Find the result of a series of transformations</li> </ul> <p><u>Support-</u></p> <ul style="list-style-type: none"> <li>• Translations by description</li> </ul>
Assessment opportunities	End of unit assessment and feedback given on blue star sheet.
Homework	Spring 1 homework booklet
Vocabulary	Finance, interest, unit pricing, angles, rotation, rotational symmetry, translate, variance, invariance, transformations

Term	Spring 2
Topics Covered	Pythagoras' Theorem, enlargement and similarity
Expectations Challenge and Support	<p><u>Expectations-</u></p> <ul style="list-style-type: none"> <li>• Identify the hypotenuse of a right angled triangle</li> <li>• Determine whether a triangle is right angled</li> <li>• Calculate the missing sides in right angled triangles</li> <li>• Enlarge shapes by a positive scale factor including from a given point</li> <li>• Calculate the lengths of missing sides in similar shapes</li> </ul> <p><u>Challenge-</u></p> <ul style="list-style-type: none"> <li>• Explore proofs of Pythagoras' Theorem</li> <li>• Use Pythagoras' Theorem in 3D shapes</li> <li>• Enlarge by negative scale factor</li> <li>• Similar triangles</li> </ul> <p><u>Support-</u></p> <ul style="list-style-type: none"> <li>•</li> </ul>
Assessment opportunities	End of unit assessment and feedback given on blue star sheet.
Homework	Spring 2 homework booklet
Vocabulary	Pythagoras' theorem, scale factor, enlargement, similarity

Term	Summer 1
Topics Covered	Solving ratio and proportion problems and rates
Expectations Challenge and Support	<p><u>Expectations-</u></p> <ul style="list-style-type: none"> <li>• Direct proportion problems and graphs</li> <li>• Conversion graphs</li> <li>• Solving ratio problems given the whole or a part</li> <li>• Simple inverse proportion</li> <li>• Work with speed, distance and time</li> <li>• Solve problems involving density</li> <li>• Work with compound units</li> </ul> <p><u>Challenge-</u></p> <ul style="list-style-type: none"> <li>• Inverse proportion graphs</li> <li>• Converting compound measures</li> </ul> <p><u>Support-</u></p> <ul style="list-style-type: none"> <li>• Diagrams to solve ratio problems</li> </ul>
Assessment opportunities	End of unit assessment and feedback given on blue star sheet.
Homework	Summer 1 homework booklet
Vocabulary	Proportion, direct, inverse, ratio, part, whole, speed, distance, time, density, compound

Term	Summer 2
Topics Covered	Solving problems using graphs, tables and algebra
Expectations Challenge and Support	<p><u>Expectations-</u></p> <ul style="list-style-type: none"> <li>• Revisit data charts and graphs including bivariate data</li> <li>• Revisit alternative representations of sequences</li> <li>• Revisit frequency trees and other representations e.g. tables</li> <li>• Revisit converting between standard and ordinary form</li> <li>• Create and interpret tables and timetables</li> <li>• Solve inequalities on number lines including error intervals</li> <li>• Criticise misleading graphs</li> <li>• Represent word problems in a variety of forms (graphs, tables, expressions...)</li> <li>• Interpret graphs of any form (exponential, piecewise, reading from quadratics)</li> <li>• Probability of two or more events including tree diagrams</li> </ul> <p><u>Challenge-</u></p> <ul style="list-style-type: none"> <li>• Form and solve a pair of linear simultaneous equations</li> </ul> <p><u>Support-</u></p> <ul style="list-style-type: none"> <li>•</li> </ul>
Assessment opportunities	End of unit assessment and feedback given on blue star sheet.
Homework	Summer 2 homework booklet
Vocabulary	Bivariate, sequences, frequency trees, standard form, ordinary form, inequalities, error intervals, criticise, exponential, quadratic, probability, probability tree