

Term	Topic(s)	Assessed work	Additional details
1 a 7 weeks 28_lessons	<p>Triangles</p> <ul style="list-style-type: none"> • "Calculate the length of the hypotenuse and of a shorter side in a right angled triangle • Use the three trigonometric ratios. " • Use trigonometric ratios and Pythagoras' theorem to solve more complex two and three-dimensional problems. • Find the sine, cosine and tangent of any angle from 0° to 360° • Use the sine rule and the cosine rule to find sides and angles in any triangle. • Work out the area of a triangle if you know two sides and the included angle. <p>Equations and inequalities</p> <ul style="list-style-type: none"> • Solve equations in which the variable (the letter) appears as part of the numerator of a fraction. • Solve equations where you have to expand brackets first. • Solve equations where the variable appears on both sides of the equals sign. • Set up equations from given information and then solve them. • Solve simultaneous linear equations in two variables using the elimination method. • Solve simultaneous linear equations in two variables using the substitution method. • Solve simultaneous linear equations by balancing coefficients. • Solve problems using simultaneous linear equations. • Solve a simple linear inequality and represent it on a number line. • Show a graphical inequality • Find regions that satisfy more than one graphical inequality. • Estimate the answer to an equations that does not have an exact solution using trial and improvement. <p>Similarity (recap)</p> <ul style="list-style-type: none"> • Show two triangles are similar. • Work out the scale factor between similar triangles. • Solve problems involving the area and volume of similar shapes 	White Rose (Flashback and End of block assessment) Diagnostic Quizzes Classwork Homework	Revisit: -Basic Number: Prime factors, -- -LCM and HCF -Fractions, ratio and proportion -Sequences and the nth term including quadratic sequences -Ratio and proportion including compound interest -Angles Facts including angles in polygons -Constructions and loci -Algebraic manipulation (expanding brackets)
1b 7 weeks 28_lessons	<p>Quadratic equations</p> <ul style="list-style-type: none"> • Draw and read values from quadratic graphs. • Solve a quadratic equation by factorisation. • Rearrange a quadratic equation so that it can be factorised. • Solve a quadratic equation by using the quadratic formula. • Recognise why some quadratic equations cannot be solved. • Solve a quadratic equation by completing the square. • Identify the significant points of a quadratic function graphically. • Identify the roots of a quadratic function by solving a quadratic equation. • Identify the turning point of a quadratic function by using symmetry or completing the square. • Solve a pair of simultaneous equations where one is linear and one is non-linear, using graphs. • Solve equations by the method of intersecting graphs. • Solve simultaneous equations where one equation is linear and the other is non-linear. • Solve quadratic inequalities. <p>Angles and Bearings</p> <ul style="list-style-type: none"> • Solve practical problems using trigonometry. • Solve problems using an angle of elevation or an angle of depression. • Solve bearing problems using trigonometry. <p>Properties of circles</p> <ul style="list-style-type: none"> • (1) The angle at the centre of a circle is twice the angle at the circumference when they are both subtended by the same arc. (2) Every angle subtended at the circumference of a semicircle by the diameter is a right angle. (3) Angles subtended at the circumference in the same segment of a circle are equal. • Find the size of angles in cyclic quadrilaterals. • Use tangents and chords to find the size of angles in circles. • Use the alternate segment theorem to find the size of angles in circles. 	White Rose (Flashback and End of block assessment) Diagnostic Quizzes Classwork Homework	Revisit: - Algebraic manipulation (factorising) -Perimeter and area of 2 D shape including circles -Surface area and volume of 3D shapes -Linear graphs -Averages -Transformations (reflection, Rotation, translation)
2a 6 weeks 24_lessons	<p>Vector Geometry</p> <ul style="list-style-type: none"> • Add and subtract vectors. • Use vectors to solve geometric problems. <p>Recap Fractions, ratio and proportion</p> <ul style="list-style-type: none"> • Find one quantity as a fraction of another. • Add and subtract fractions with different denominators. • Multiply and divide proper fractions and mixed numbers • Use a calculator to accurately solve problems involving fractions. • Increase and decrease quantities by a percentage. 	White Rose (Flashback and End of block assessment) Diagnostic Quizzes Classwork Homework	Revisit: -Transformation (Enlargements) -Sine Rule -Change the subject of the formula -Area of any triangle -Circle theorems -Simultaneous equations

	<ul style="list-style-type: none"> Work out percentage change. Express one quantity as a percentage of another. <p>Recap Ratio and proportion</p> <ul style="list-style-type: none"> Calculate compound interest. Solve problems involving repeated percentage change. Calculate the original amount after a known percentage change. <p>Exploring and applying probability</p> <ul style="list-style-type: none"> Calculate experimental probabilities and relative frequencies. Estimate probabilities from experiments. Use different methods to estimate probabilities. Recognise mutually exclusive, complementary and exhaustive events. Predict the likely number of successful events, given the number of trials and the probability of any one outcome. Read two-way tables and use them to work out probabilities. Use Venn diagrams to solve probability questions. <p>Probability: Combined events</p> <ul style="list-style-type: none"> Work out the probability of different outcomes of combined events. Work out the probability of two outcomes or events occurring at the same time. Use tree diagrams to work out the probability of combined events. Use the connectors 'and' and 'or' to work out the probabilities for combined events. Work out the probability of combined events when the probabilities change after each event. 		
2b 6 weeks 24_lessons	<p>Powers and standard form</p> <ul style="list-style-type: none"> Use powers (also known as indices). Multiply and divide by powers of 10. Use rules for multiplying and dividing powers. Change a number into standard form. Calculate using numbers in standard form. <p>Counting, accuracy, powers and surds</p> <ul style="list-style-type: none"> How to estimate powers and roots of any given positive number. Apply the rules of powers to negative and fractional powers Find and use the relationship between negative powers and roots. Simplify surds. Calculate and manipulate surds, including rationalising a denominator. Find the error interval or limits of accuracy of numbers that have been rounded to different degrees of accuracy. Combine limits of two or more variables together to solve problems. Work out the number of choices, arrangements or outcomes when choosing from lists or sets. 	White Rose (Flashback and End of block assessment) Diagnostic Quizzes Classwork Homework	Revisit: -Similar shapes -indices -Pythagoras -Trigonometry -Decimals (4 operations)
3a 6 weeks 24_lessons	<p>Statistical diagrams and averages</p> <ul style="list-style-type: none"> Draw and interpret bar charts and pie charts. Draw and interpret line graphs. Use averages to solve more complex problems. Identify the advantages and disadvantages of each type of average and learn which one to use in different situations. Work out and use the range of a set of data. Calculate the mode, the median and the mean from a frequency table. Identify the modal group. Estimate the mean from a grouped frequency table. Draw, interpret and use scatter diagrams. Draw and use a line of best fit. <p>Sampling and more complex diagrams</p> <ul style="list-style-type: none"> Understand sampling. Collect unbiased reliable data for a sample. Draw and interpret frequency polygons. Draw and interpret cumulative frequency graphs. Draw and interpret box plots. Draw and interpret histograms where the bars are of equal width. Draw and interpret histograms where the bars are of unequal width. Calculate the median, quartiles and interquartile range from a histogram. 	White Rose (Flashback and End of block assessment) Diagnostic Quizzes Classwork Homework	Revisit -Solving Quadratics -Solving inequalities -Parallel and perpendicular lines -Congruent triangles -Vectors -Cosine rule
3b 7 weeks 28 lessons	<ul style="list-style-type: none"> Revision Examinations Recap from Examination Work experience curriculum enrichment week Recap from examination 	End of year exams Curriculum enrichment week	Revisit