Time	Topic	What students should know	Mathswatch links for revision
2	13.1 Accuracy	● Understand and use upper and lower bounds in	● 132 - Introduction to Bounds ● 206 - Upper & Lower Bounds
1	13.2 Graph of the sine function	● Understand how to fi nd the sine of any	● 168 - Trigonometry ● 173 - Exact Trigonometric
1	13.3 Graph of the cosine function	● Understand how to fi nd the cosine of any angle.	● 168 - Trigonometry ● 173 - Exact Trigonometric Values ● 195 - Trigonometric
1	13.4 The tangent function	● Understand how to fi nd the tangent of any angle.	● 168 - Trigonometry ● 173 - Exact Trigonometric Values ● 195 - Trigonometric
2	13.5 Calculating areas and the sine rule	● Find the area of a triangle and a segment of a circle.	● 149 - Tangents, Arcs, Sectors & Segments ● 173 - Exact Trigonometric
2	13.6 The cosine rule and 2D	● Use the cosine rule to solve 2D	● 173 - Exact Trigonometric Values ● 195 - Trigonometric
2	13.7 Solving problems in 3D	● Use Pythagoras' theorem in 3D.	● 217 - Pythagoras In 3D ● 218 - Trigonometry In 3D
1	13.8 Transforming	● Recognise how	● 196 - Transformation Of
2	14.1 Sampling	●Understand how to take a simple	● 152 - Sampling Populations ● 176 - Stratisfied Sampling
2	14.2 Cumulative frequency	● Draw and interpret cumulative frequency tables and	● 186 - Cumulative Frequency
2	14.3 Box plots	● Find the quartiles and the interquartile range from stem-	● 187 - Box Plots
2	14.4 Drawing histograms	● Understand frequency density.	● 205 - Histograms
2	14.5 Interpreting	● Interpret	● 205 - Histograms
1	14.6 Comparing and	●Compare two sets	
1	15.1 Solving	● Solve	● 150 - Simultaneous Equations
2	15.2 Representing inequalities	● Represent inequalities on	
1	15.3 Graphs of	● Recognise and	● 98 - Drawing Quadratic
2	15.4 Solving quadratic equations	● Find approximate solutions to	● 157 - Factorising & Solvig Quadratics

Time	Topic	What students should know	Mathswatch links for revision
2	15.5 Graphs of cubic functions	● Find the roots of cubic equations. ● Sketch graphs of cubic functions. ● Solve cubic equations using an iterative process.	● 161 - Cubic & Reciprocal Graphs ● 179 - Iteration - Trial & Improvement

2	16.1 Radii and chords	● Solve problems involving angles, triangles and circles. ● Understand and use facts about chords and their distance from the centre of a circle. ● Solve problems involving chords and radii.	● 116 - Circle Definitions ● 183 - Circle Theorems ● 184 - Proof Of Circle Theorems
2	16.2 Tangents	● Understand and use facts about tangents at a point and from a point. ● Give reasons for angle and length calculations involving tangents.	● 116 - Circle Definitions ● 183 - Circle Theorems ● 184 - Proof Of Circle Theorems
2	16.3 Angles in circles 1	● Understand, prove and use facts about angles subtended at the centre and the circumference of circles. ● Understand, prove and use facts about the angle in a semicircle being a right angle. ● Find missing angles using these theorems and give reasons for answers.	● 116 - Circle Definitions ● 183 - Circle Theorems ● 184 - Proof Of Circle Theorems
2	16.4 Angles in circles 2	● Understand, prove and use facts about angles subtended at the circumference of a circle. ● Understand, prove and use facts about cyclic quadrilaterals. ● Prove the alternate segment theorem.	● 116 - Circle Definitions ● 183 - Circle Theorems ● 184 - Proof Of Circle Theorems

2	16.5 Applying circle theorems	● Solve angle problems using circle theorems. ● Give reasons for angle sizes using mathematical language. ● Find the equation of the tangent to a circle at a given point.	● 116 - Circle Definitions ● 183 - Circle Theorems ● 184 - Proof Of Circle Theorems
1	17.1 Rearranging formulae	● Change the subject of a formula where the power of the subject appears. ● Change the subject of a formula where the subject appears twice.	● 101 - Subject Of The Formula Using Flowcharts ● 136 - Rearranging Simple Formulae ● 190 - Rearranging Difficult Formulae
2	17.2 Algebraic fractions	● Add and subtract algebraic fractions. ● Multiply and divide algebraic fractions. ● Change the subject of a formula involving fractions where all the variables are in the denominators.	● 101 - Subject Of The Formula Using Flowcharts ● 136 - Rearranging Simple Formulae ● 190 - Rearranging Difficult Formulae ● 210 - Algebraic Fractions
2	17.3 Simplifying algebraic fractions	● Simplify algebraic fractions.	● 210 - Algebraic Fractions

Time	Topic	at students should kn	Mathswatch links for revision
1	17.4 More algebraic fractions	● Add and subtract more complex algebraic fractions. ● Multiply and divide more complex algebraic fractions.	● 210 - Algebraic Fractions
2	17.5 Surds	● Simplify expressions involving surds. ● Expand expressions involving surds. ● Rationalise the denominator of a fraction.	● 207 - Surds
2	17.6 Solving algebraic fraction equations	● Solve equations that involve algebraic fractions.	● 210 - Algebraic Fractions

2	17.7 Functions	● Use function notation. ● Find composite functions. ● Find inverse functions.	● 214 - Inverse functions ● 215 - Composite Functions
1	17.8 Proof	● Prove a result using algebra.	● 193 - Algebraic Proof
2	18.1 Vectors and vector notation	● Understand and use vector notation. ● Work out the magnitude of a vector.	● 174 - Introduction To Vectors ● 219 - Vectors
2	18.2 Vector arithmetic	● Calculate using vectors and represent the solutions graphically. ● Calculate the resultant of two vectors.	● 174 - Introduction To Vectors ● 219 - Vectors
2	18.3 More vector arithmetic	● Solve problems using vectors. ● Use the resultant of two vectors to solve vector problems.	● 174 - Introduction To Vectors ● 219 - Vectors
2	18.4 Parallel vectors and collinear points	● Express points as position vectors. ● Prove lines are parallel. ● Prove points are collinear.	● 174 - Introduction To Vectors ● 219 - Vectors
2	18.5 Solving geometric problems	● Solve geometric problems in two dimensions using vector methods. ● Apply vector methods for simple geometric proofs.	● 174 - Introduction To Vectors ● 219 - Vectors
1	19.1 Direct proportion	● Write and use equations to solve problems involving direct proportion.	● 199 - Direct & Inverse Proportion

Time	Topic	What students should know	Mathswatch links for revision
1	19.2 More direct proportion	● Write and use equations to solve problems involving direct proportion. ● Solve problems involving square and cubic proportionality.	● 199 - Direct & Inverse Proportion

2	19.3 Inverse proportion	● Write and use equations to solve problems involving inverse proportion. ● Use and recognise graphs showing inverse proportion.	● 199 - Direct & Inverse Proportion
1	19.4 Exponential functions	● Recognise graphs of exponential functions. ● Sketch graphs of exponential functions.	● 194 - Exponential Functions
1	19.5 Non-linear graphs	● Calculate the gradient of a tangent at a point. ● Estimate the area under a non-linear graph.	
1	19.6 Translating graphs of functions	● Understand the relationship between translating a graph and the change in its function notation.	● 196 - Transformations Of Functions
1	19.7 Reflecting and stretching graphs of functions	● Understand the effect stretching a curve parallel to one of the axes has on its function form. ● Understand the effect reflecting a curve in one of the axes has on its function form.	● 196 - Transformations Of Functions
Rest Of The Half Term	**Targetted Intervention Topics**	**Targetted Intervention Topics**	**Targetted Intervention Topics**