

Time	Autumn Term		Spring Term		Summer Term	
Content	<ul> <li>Algebraic expressions</li> <li>Bearings</li> <li>Linear equations and inequalities</li> <li>Sequences</li> <li>Further circle theorems</li> </ul>	<ul> <li>Pythagoras' theorem and Trigonometry in right angled triangles</li> <li>Probability</li> <li>Fractions and Percentages</li> </ul>	<ul> <li>Ratio and Proportion</li> <li>Rearranging formulae</li> <li>Linear and Quadratic graphs</li> <li>Area and Volume</li> <li>Vectors</li> </ul>	<ul> <li>Error intervals</li> <li>Standard form</li> <li>Cumulative frequency graphs, Box plots</li> <li>Histograms</li> </ul>	<ul> <li>Trigonometry in non-right angled triangles</li> <li>Algebraic proof</li> <li>Functions</li> </ul>	<ul><li>Iterations</li><li>Surds</li></ul>
Skills	<ul> <li>Number</li> <li>simplify fractions, perform the four operations with fractions, order fractions, decimals and percentages, use of multipliers in percentage problems,</li> <li>Ratio, proportion and rates of change</li> <li>solve problems related to compound interest/exponential growth, work out the original value in percentage change problems</li> <li>Algebra</li> <li>collect like terms, expand brackets (incl. triple brackets), perform the four operations with algebraic fractions, factorisation (including quadratic factorisation), solve linear equations and inequalities (including ones with fractions), derive expressions and equations, work out the nth term of linear and quadratic sequences</li> <li>Geometry and Measures</li> <li>work out the bearing of a location from another, working out unknown angles using appropriate circle theorems, work out unknown lengths and angles using trigonometry</li> <li>Probability and Statistics</li> <li>solve problems (independent and dependent events) using tree diagrams and Venn diagrams, solve problems using AND and OR rules</li> </ul>		Number         work out upper and lower bounds of quantities, solve problems related to limits of accuracy, express large and small numbers in standard form, solve real life problems (including speed and density problems) involving numbers in standard form         Ratio, proportion and rates of change         solve problems on direct and inverse proportion using algebraic equations, solve problems related to compound measures (speed, density and pressure)         Algebra         rearrange abstract and real life formulae, factorisation, draw linear and quadratic graphs, work out the gradient and identify the y intercept of straight line graphs, work out the equation of parallel and perpendicular lines, recognise the roots and turning point of a quadratic graph         Geometry and Measures         work out surface area and volume of prisms and non-prisms, apply addition and subtraction of vectors, multiplication of vectors by a scalar, and diagrammatic and column representations of vectors, use vectors to construct geometric arguments and proofs         Probability and Statistics plot cumulative frequency graphs and box plots (incl comparing distributions), represent data by drawing a histogram with unequal widths		Number simplify surd expressions involving squares, collect like terms and expand brackets where terms are in surd form, rationalise denominators in fractions involving surds Algebra interpret simple expressions as functions with inputs and outputs, interpret the reverse process as the 'inverse function', interpret the succession of two functions as a 'composite function', use iteration to find approximate solutions to equations (including quadratic and cubic equations), use algebra to prove results/facts Geometry and Measures work out unknown lengths, angles and area (non-right angles triangles) using trigonometry	
Assessment week and content	wb 13 <sup>th</sup> November 2022 Algebraic expressions, Bearings, Li Sequences, Circle theorems, Pytha right angled triangles, Probability (students will also be give a topic l clips to support them with revision	near equations and inequalities, agoras' theorem and Trigonometry in ist with reference to MathsWatch າ)	wb 5 <sup>th</sup> February 2023 Fractions and Percentages, Ratio formulae, Linear and Quadratic Error intervals (students will also be give a topi clips to support them with revisi	o and Proportion, Rearranging graphs, Area and Volume, Vectors, ic list with reference to MathsWatch ion)	EOY exam Exam window 15 <sup>th</sup> of April – 26 <sup>th</sup> All the content covered over the (students will also be give a topic clips to support them with revisio	of April 2024 year list with reference to MathsWatch on)

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