

Department Curriculum Map 2014-15 (new GCSE)



Department	Mathematics	
Skills required in Year 11		
Foundation		Higher
<p>1. Number</p> <ul style="list-style-type: none"> • <i>Structure and calculation</i>: N1 to N9 • <i>Fractions, decimals and percentages</i>: N10 to N12 • <i>Measure and accuracy</i>: N13 to N16 <p>2. Algebra</p> <ul style="list-style-type: none"> • <i>Notation, Vocabulary and manipulation</i>: A1 to A7 • <i>Graphs</i>: A8 to A16 • <i>Solving equations and inequalities</i>: A17 to A22 • <i>Sequences</i>: A23 to A25 <p>3. Ratio, proportion and rates of change</p> <ul style="list-style-type: none"> • R1 to R16 <p>4. Geometry and measures</p> <ul style="list-style-type: none"> • <i>Properties and constructions</i>: G1 to G13 • <i>Mensuration and calculation</i>: G14 to G21 • <i>Vectors</i>: G24 to G25 		<p>(All of foundation skills plus)</p> <p>1. Number</p> <p><i>Structure and calculation</i>:</p> <ul style="list-style-type: none"> • N5 – Including use of the product rule for counting. • N6 – estimate powers and roots of any given positive number. • N7 – including fractional indices • N8 – surds, simplify surd expression involving squares and rationalise denominators. <p><i>Fractions, decimals and percentages</i></p> <ul style="list-style-type: none"> • N10 – change recurring decimals into their corresponding fractions and vice versa <p><i>Measure and accuracy</i></p> <ul style="list-style-type: none"> • N16 upper and lower bounds

5. Probability

- P1 to P8

6. Statistics

- S1 to S6

2. Algebra

Notation, Vocabulary and manipulation:

- A4 - including algebraic fractions & expanding brackets with two or more binomials. Factorising quadratic expression of the form $ax^2 + bx + c$
- A6 – knowing proofs
- A7 – interpret the reverse process as the ‘inverse function’; interpret the succession of two functions as a ‘composite function’ (the use of formal function notation is expected)

Graphs:

- A9 – including perpendicular lines
- A11 – and turning points by completing the square
- A12 – exponential functions $y = k^x$ for positive values of k , and the trigonometric functions (with arguments in degrees) $y = \sin x$, $y = \cos x$ and $y = \tan x$ for angles of any size
- A13 – sketch translations and reflections of given functions
- A14 – and exponential graphs
- A15 – calculations or estimate gradients of graphs and areas under graphs (including quadratic and other non-linear graphs) and interpret results in financial context (this does not include calculus)
- A16 – recognise and use the equation of a circle with centre at the origin; find the equation of tangent to a circle at a given point.

Solving equations and inequalities:

- A18 - Solve quadratic equations including those that require rearrangement. Using completing the square and by using the quadratic formula
- A19 – simultaneous equations with linear and quadratic
- A20 – find approximate solutions to equations numerically using iteration
- A22 – Solve inequalities with two variables and quadratic inequalities in one variable. Use set notation and on a graph

Sequences:

- A24 – including surds and other sequences
- A25 – including quadratic sequences

3. Ratio, proportion and rates of change

- R13 – including construct and interpret equations that describe direct and inverse proportion
- R15 – Interpret the gradient at a point on a curve as the instantaneous rate of change; apply the concepts of average and instantaneous rate of change (gradients of chords and tangents) in numerical, algebraic and graphical context (this does not include calculus)
- R16 – and work with general iterative processes

4. Geometry and measures

Properties and constructions

- G7 – and negative
- G8 – describe the changes and invariance achieved by combinations of rotations, reflections and translations.
- G10 – apply and prove the standard circle theorems concerning angles, radii, tangents and chords and use them to prove related results
- G19 – areas and volume
- G20 – where possible, general triangles in two and three dimensional figures
- G22 know and apply the sine rule, and cosine rule, to find unknown lengths and angles
- G23 Know and apply $\text{Area} = \frac{1}{2} ab \sin C$ to calculate the area, sides or angles of any triangles

Vectors

- G25 use vectors to construct geometric arguments and proofs

5. Probability

				<ul style="list-style-type: none"> P9 – calculate and interpret conditional probability through representation using expected frequencies with two-way tables, tree diagrams and Venn diagrams <p>6. Statistics</p> <ul style="list-style-type: none"> S3 – Construct and interpret diagrams for grouped discrete data and continuous data, i.e. histograms with equal and unequal intervals and cumulative frequency graphs, and know their appropriate use S4 – including box plots. Appropriate measures including quartiles and inter-quartile range 			
Year	AUT1	AUT2	SPR1	SPR2	SUM1	SUM2	Secured
11 Higher Skills Covered	<i>13b Further trigonometry (N16 G11 G20 G22 G23)</i> <i>Unit 18 Vectors and geometric proof G25</i> <i>16b Circle geometry (A16)</i>	8a Transformations (R6 G5 G6 G7 G8 G24 G25) 8b Constructions, loci and bearing (R2 G1 G2 G3 G12 G13 G15 G190) Unit 12 (R6 R12 G5 G6 G17 G19)	Unit 11 (N3 N12 N13 R1 R6 R10 R11 R14 R16) Unit 15 (N8 A4 A11 A12 A18 A19 A20 A21 A22) Unit 17 (N8 A4 A5 A6 A7 A18)	19a Reciprocal and exponential graphs (R14 R15 A7 A12 A13 A14 A15) 19b Direct and inverse proportion (R7 R10 R13 R16)			
Theme/ Focus/ Content	13b Further Trigonometry (10 lessons) <u>Vector and geometric proof Unit 18 (8 lessons)</u> (16b) circle geometry (8 lessons)	<u>Transformations unit 8</u> 8a Transformations (9 lessons) 8b Construction, loci and bearing (8 lessons) <u>Similarity and congruence in 2d and 3d Unit 12 (8 lessons)</u>	<u>Multiplicative reasoning Unit 11 (8 lessons)</u> <u>Quadratics, expanding and sketching graphs Unit 15 (8 lessons)</u> <u>Changing the subject of formulae (more complex) unit 17 (lesson 8)</u>	<u>Direct and indirect proportion Unit 19</u> 19a Reciprocal and exponential graphs (8 lessons) 19b Direct and inverse proportion (8 lessons) Any remaining time this term should focus on	Revision to prepare for final exam. Topics based on practice papers completed.		

				revision to prepare for the final exam.			
11 Foundation Skills Covered	<p><i>18a Fractions (N2 N3)</i></p> <p><i>18b Indices and standard form (N7 N9)</i></p> <p><i>Unit 14 Multiplicative reasoning (N13 R1 R9 R11 R13 R16 G14)</i></p> <p><i>Unit 17 Perimeter, area and volume 2: N8 N14 N15 N16 G9 G16 G17 G18)</i></p>	<p>19a Similarity and congruence in 2d (R6 R12 G5 G7 G19)</p> <p>19b Vectors (G24 G25)</p> <p>15a Plans, elevations and nets (G1 G2 G9 G12 G13 G15)</p> <p>15b Constructions, loci and bearings (R2 G2 G5 G15)</p>	Unit 12 Right-angled triangles: Pythagoras and trigonometry (N7 N15 A4 G6 G20 G21)				
Theme/ Focus/ Content	<p><u>Fractions, reciprocal, standard form, zero and negative indices Unit 18</u></p> <p>(18a) fractions (7 lessons)</p> <p>(18b) Indices and standard form (7 lessons)</p> <p><u>Multiplicative reasoning Unit 14 (8 lessons)</u></p>	<p><u>Congruence, similarity and vectors unit 19</u></p> <p>(19a) Similarity and congruence in 2d (8 lessons)</p> <p>(19b) Vectors (8 lessons)</p> <p><u>Constructions: triangles, nets, plan and elevations, loci, scale drawings and bearings. Unit 15</u></p>	<p><u>Right-angled triangles: Pythagoras and trigonometry Unit 12 (8 lessons)</u></p> <p>Revision to prepare for final exam. Topics based on practice papers completed.</p>	Revision to prepare for final exam. Topics based on practice papers completed.	Revision to prepare for final exam. Topics based on practice papers completed.		

	Perimeter, area and volume 2: Unit 17 (8 lessons)	(15a) Plans, elevations and nets (7 lessons) (15b) Constructions, loci and bearings (9 lessons)					
10 Higher Skills covered	3a Averages and range (G14 S2 S3 S4 S5) 3b Representing and interpreting data (S1 S2 S3 S4) 3c Scatter diagrams (S4 S6)	14a Collecting data (S1) 14b Cumulative frequency, box plots and histograms (S1 S3 S4)	Unit 10 Probability (N5 P1 P2 P3 P4 P5 P6 P7 P8 P9) 4b percentages (N8 N12 N13 R9)	6a graphs the basics (N3 N15 A8 A10 A14 A15 R1 R11) 6b Linear graphs and coordinate geometry (A9 A10 A12 A17 R8 R10 S5)	<i>2a Algebra the basics (N1 N3 A1 A2 A3 A4 A7)</i> 2b Setting up, rearranging and solving equations (N1 N8 A1 A2 A5 A6 A17 A20 A21) 9a Solving quadratics and simultaneous equations (N8 A4 A9 A11 A18 A19 A21) 9b inequalities (N1 A22)	6c Quadratic, cubic and other graphs (A11 12 16) 5b Pythagoras' Theorem and trigonometry (A4 N7 N8 N15 G6 G20 G21) <i>13a graphs and trigonometric functions (A8 A12 A13 G21)</i>	
Theme/ Focus/ Content	<u>Averages and range, collecting data, representing data Unit 3</u> 3a Averages and range (10 lessons)	<u>Statistics and sampling, cumulative frequency and histograms Unit 14</u> (14a) Collecting data (8 lessons)	Probability unit 10 (12 lessons) Recap yr 9 (4b) Percentages work (8 lessons)	Recap yr 9 graphs work <u>Real life and linear graphs Unit 6</u> (6a) Real life graphs (4 lessons) (6b) Linear graphs and coordinate geometry	Algebra Unit 2 Recap yr 9 (2b) Setting up, rearranging and solving equations (10 lessons)	(6c) Quadratic, cubic and other graphs (9 lessons) (5b) Pythagoras' Theorem and trigonometry (10 lessons)	

	<p>3b Representing and interpreting data (9 lessons)</p> <p>3c Scatter Diagrams (7 lessons)</p>	<p>(14b) Cumulative frequency, box plots and histograms (10 lessons)</p> <p>Note extra time has been allowed this term to check on basic knowledge of Statistics, check Foundation SOW</p>		<p>(4 lessons)</p> <p>Revise Statistics work prepare for Mock exam unit 1 and 2</p>	<p>Algebra: quadratics and inequalities Unit 9</p> <p>(9a) Solving quadratics (10 lessons)</p> <p>(9b) Inequalities (8 lessons)</p>	<p><u>Sine and cosine rules Unit 13</u></p> <p>13a Graphs of trigonometric functions (8 lessons)</p>	
<p>10 Foundation</p> <p>Skills Covered</p>	<p><i>3a Tables (G14 S2 S4 S5)</i></p> <p><i>3b Charts (S2 S4)</i></p> <p><i>3c Pie charts (G2 G15 S2 S4)</i></p> <p><i>3d Scatter graphs (S4 S6)</i></p>	<p>5a Statistics and questionnaires (S1)</p> <p>5b The averages (S2 S4)</p> <p>11b Proportion (R1 R5 R7R10 R14)</p>	<p>13 a Probability I (P1 P2 P3 P4 P6 P7)</p> <p>13b Probability II (N5 P1 P2 P3 P5 P7 P8)</p> <p>4c Percentages (N12 R9)</p>	<p>9a Real-life graphs (N13 A7 A8 A9 A10 A14 G11 G14)</p> <p>9b Straight line graphs (A7 A9 A10 A12 A17)</p>	<p>7a Equations (N1 A3 A5 A17 A21)</p> <p>7b Inequalities (N1 A7 A22)</p> <p>16a Quadratic equations: expanding and factorising (A4 A11 A18)</p>	<p>16b Quadratics: graphs (A11 A12 A18)</p> <p>20 Rearranging equations, graphs of cubic and reciprocal functions and simultaneous equations</p> <p>10a Rotations and translations (G1 G7 G24)</p> <p>10b Reflections and enlargements (R G1 G7)</p>	
<p>Theme/ Focus/ Content</p>	<p><u>Drawing and interpreting graphs, table and charts Unit 3:</u></p> <p>(3a) Tables (8 lessons)</p>	<p><u>Averages and range, sampling, questionnaires collecting data, analysing data. Unit 5:</u></p>	<p><u>Probability Unit 13:</u></p> <p>(13a) Probability I (7 lessons)</p> <p>(13b) Probability II (11 lessons)</p>	<p>Recap unit 9 linear graphs (from yr 9)</p> <p>(9a) Real –life graphs (5 lessons)</p>	<p><u>Equations, inequalities and sequences unit 7:</u></p> <p>(7a) Equations (9 lessons)</p>	<p>(16b) Quadratic graphs (5 lessons)</p> <p><u>Rearranging equations, graphs of cubic and reciprocal functions</u></p>	

	<p>(3b) Charts and graphs (8 lesson)</p> <p>(3c) Pie charts (5 lessons)</p> <p>(3d) Scatter graphs (7 lessons)</p>	<p>(5a) Statistics and questionnaires (5 lessons)</p> <p>5b The Averages (10 lessons)</p> <p>Unit 11b Proportion (7 lessons)</p> <p><u>Algebra Unit 2 (recap yr 9)</u></p> <p>(2c) Expressions and substituting into a formulae (8 lessons)</p>	<p><u>Percentages Unit 4 (recap yr 9)</u></p> <p>(4c) Calculating percentages (5 lessons)</p> <p>Problem solving unit (example costing a trip/holiday) (5 lessons)</p>	<p>(9b) linear graphs (5 lessons)</p> <p>Recap revise data unit of work</p> <p>Mock exam for unit 1 and 2</p>	<p>(7b) Inequalities (6 lessons)</p> <p><u>Quadratic equations Unit 16:</u></p> <p>(16a) Quadratic equations: expanding and factorising (7 lessons)</p>	<p><u>and simultaneous equations unit 20 (10 lessons)</u></p> <p><u>Transformations unit 10:</u></p> <p>10a Rotations and translations (6 lessons)</p> <p>10b Reflections and enlargements (7 lesson)</p>	
9 Higher Skills Covered	<p><i>1a Calculations, checking and rounding (N2 N3 N4 N14 N15)</i></p> <p><i>1b Indices, roots, reciprocals and hierarchy of operations (N3 N6 N7)</i></p> <p><i>1c Factors, multiples and primes (N3 N4)</i></p>	<p><i>1d Standard form and surds (N8 N9)</i></p> <p><i>2a Algebra the basics (N1 N3 A1 A2 A3 A4 A7)</i></p> <p><i>2c Sequences (N9 A23 A24 A25)</i></p>	<p><i>4a fractions (N2 N3 N10 N12 R3)</i></p> <p><i>4b Percentages (N8 N12 N13 R9)</i></p> <p><i>5a Angles, polygons & parallel lines (G1 G3 G4 G6 G11)</i></p>	<p>6a graphs the basics (N3 N15 A8 A10 A14 A15 R1 R11)</p> <p>6b Linear graphs and coordinate geometry (A9 A10 A12 A17 R8 R10 S5)</p>	<p>7a Perimeter, area and 3d forms (N14 N15 R1 G1 G12 G13 G14G16 G17)</p> <p>16a Circle theorems (G9 G10)</p> <p>7b Circles, cylinders, cones and spheres (N8 N15 G14 G16 G17 G18)</p>	<p>7c Accuracy and bounds (N15 N16)</p> <p>Review of Year 9 work prepare for end of year exam.</p>	

<p>Theme/ Focus/ Content</p>	<p><u>Powers, decimals, HCF, LCM, positive and negative, roots, rounding, reciprocals, standard form, indices and surds.</u> Unit 1 (1a) Calculations, checking and rounding (7 lessons) (1b) Indices, roots, reciprocals and hierarchy of operations (9 lessons) (1c) Factors, multiples and primes (7 lessons)</p>	<p>(1d) Standard form and surds (7 lessons) <u>Expressions, substituting into simple formulae, expanding and factorising, sequences Unit 2</u> (2a) Algebra the basics (9 lessons) (2c) Sequences (7 lessons)</p>	<p><u>Fractions percentages, ratio and proportion unit 4</u> (4a) Fractions (9 lessons) (4b) Percentages (9 Lessons) <u>Angles, Polygons, parallel lines Unit 5</u> (5a) Polygons, angles and parallel lines (9 lessons)</p>	<p><u>Real life and linear graphs Unit 6</u> 6a Graphs the basics and real life graphs (8 lessons) 6b Linear graphs and coordinate geometry (10 lessons)</p>	<p><u>Perimeter, area and volume Unit 7</u> 7a Perimeter, area and 3d forms (10 lessons) <u>Circle theorems and circle geometry unit 16</u> 16a Circle theorems (8 lessons) 7b Circles, cylinders, cone and spheres (10 lessons)</p>	<p>7c Accuracy and bounds (8 lessons) Review of Year 9 work prepare for end of year exam.</p>	
<p>9 Foundation Skills Covered</p>	<p><i>1a Integers and place value (N1 N2 N3 N4 N14 N15)</i> <i>1b Decimals (N1 N2 N3 N13 N15)</i> <i>1c Indices, powers and roots (N6 N7)</i> <i>1d Factors, multiples and primes (N4 N5)</i> <i>2a Algebra: the basics (N1 N3 A1 A3 A4)</i></p>	<p><i>2a Algebra: the basics (N1 N3 A1 A3 A4)</i> <i>2b Expanding and factorising single brackets (A4 A6)</i> <i>2c Expressions and substitution into formulae (A2 A4 A5 A7 A21)</i> <i>4a Fractions (N1 N2 N3 N12 R3 S2)</i> <i>4b Fractions, decimals and</i></p>	<p><i>4c Percentages (N12 R9)</i> <i>7c Sequences (A7 A23 A24 A25)</i> <i>9a Real life graphs (N13 A7 A8 A9 A10 A14 G11 G14)</i> <i>9b Straight line graphs (A7 A9 A10 A12 A17)</i></p>	<p><i>11a Ratio (N11 N13 R1 R4 R5 R6 R8 R12)</i> <i>6a angles, lines and symmetry (G1)</i> <i>6b Polygons and parallel lines (G1 G3 G4 G6)</i></p>	<p><i>6c Interior and exterior angles of polygons (G1 G3 G5 G11)</i> <i>8a Perimeter, area (14 R1 G11 G14 G16 G17)</i> <i>8b Forms and volume (N1 R1 G12 G16)</i></p>	<p>Review of year 9 work based on class need.</p>	

		Percentages (N1 N2 N8 N10 R9)					
Theme/ Focus/ Content	<p>Number Unit 1:</p> <p>(1a) Integers and place value. (7 lessons)</p> <p>(1b) Decimals. (6 lessons)</p> <p>(1c) Indices, powers and roots (7 lessons)</p> <p>(1d) Factors, Multiples and primes (7 lessons)</p> <p>Algebra Unit 2:</p> <p>2a Algebra: the basics (continues in 2nd half term) (3 lessons)</p>	<p>(2a) Algebra: the basics (6 lessons) (continued from previous half term)</p> <p>(2b) Expanding and factorising single brackets (7 lessons)</p> <p>(2c) Expressions and substitution into formulae (8 lessons)</p> <p>Fractions unit 4:</p> <p>(4a) Fractions (8 lessons)</p> <p>(4b) fractions, decimals and percentages (5 lessons)</p>	<p>(4c) Percentages (7 lessons)</p> <p>Sequences Unit 7: (7c) 7 hours</p> <p>Real life Unit 9: graphs and algebraic linear graphs</p> <p>(9a) Real life graphs (9 lessons)</p> <p>(9b) Straight line graphs (7 lessons) – this may be continued after half term)</p>	<p>Unit 11 Ratio</p> <p>11a Ratio (7 lessons)</p> <p>Angles, polygons and parallel lines</p> <p>Unit 6:</p> <p>(6a) Angles, lines and symmetry (6 lessons)</p> <p>(6b) Polygons and parallel lines (12 lessons)</p>	<p>(6c) Interior and exterior angles of polygons (7 lessons)</p> <p>Perimeter, area unit 8:</p> <p>(8a) Perimeter and area (11 lessons)</p> <p>(8b) 3d form and volume (7 lessons)</p>	<p>Review of year 9 work revise for end of year exam</p>	
8	<p>Number & place value: N4 N6</p> <p>Number calculations: N2</p> <p>Algebra: A2 A5</p>	<p><i>Geometry; properties of shape:</i> G1 G3</p> <p><i>Geometry and direction:</i> G13</p> <p><i>Statistics</i> S4</p>	<p>Number & place value: N3 N4 N7</p> <p>Algebra: A17</p> <p>Fraction, decimals and %: R9</p>	<p><i>Geometry; properties of shape:</i> G5 G7</p> <p><i>Statistics</i> S6</p> <p><i>Ratio and proportion</i> R10</p>	<p>Number & place value: N14 N15</p> <p>Number calculations: N10</p> <p>Algebra: A23 A24 A25</p>	<p><i>Geometry; properties of shape:</i> G3</p> <p><i>Geometry and direction:</i> G2</p> <p><i>Statistics</i> S1 S2 S4 S5</p>	

	<p>Fraction, decimals and %: N2</p> <p>Measures + Accuracy: G16 G17</p>	<p>Probability P4</p> <p>Ratio and proportion R5 R7</p> <p>Theme week</p>	<p>Measures + Accuracy: G16</p>	<p>R6</p> <p>Theme week</p>	<p>Fraction, decimals and %: R10</p> <p>Measures + Accuracy: G14 R1</p>	<p>Probability P7</p> <p>Ratio and proportion R12</p> <p>Theme week</p>	
Theme/ Focus/ Content	<p>Number & place value: Use the concept and vocabulary of prime number, factors, multiples, prime factorisation, including product notation.</p> <p>Number calculations: Apply the four operations including formal written methods to integers and decimals</p> <p>Algebra: Use algebraic notation. Substitute into a formulae Rearrange formulae to change the subject</p> <p>Fraction, decimals and %:</p>	<p>Geometry; properties of shape: Parallel line rules. Include angles in a triangle</p> <p>Geometry and direction: Interpret plans and elevations of 3d shape</p> <p>Statistics Calculating 4 different averages. Interpret, analyse and compare the distributions of data sets</p> <p>Probability Apply the property that the probabilities of an exhaustive set of outcomes sum to one; apply the property that the probabilities of an</p>	<p>Number calculations: Use conventional notation for priority of operations, including brackets and powers</p> <p>Algebra: Solve linear equations with the unknown on both sides.</p> <p>Fractions, Decimals and %: Calculate percentage change, including financial mathematics</p> <p>Measure and Accuracy: Calculate the volume and problem solving real life problems</p>	<p>Geometry: Identify, describe construct similar shapes,</p> <p>Statistics: Use and interpret scatter diagrams and recognise correlation</p> <p>Ratio & Proportion: Solve problems with direct and inverse proportion. Express a multiplicative relationship between two quantities as a ratio</p> <p>Theme week:</p>	<p>Number & place value: Round number to decimal places and SF</p> <p>Number calculations: Work interchangeably with terminating decimals and their corresponding fractions</p> <p>Algebra: Generate terms of a sequence term to term. Deduce expressions to calculate the nth term of a linear sequence Plot linear graphs and those of real life</p> <p>Fraction, decimals and %:</p>	<p>Geometry; properties of shape: Derive and use the sum of angles in a triangle (e.g to deduce and use the angle sum in any polygon, and derive properties of regular polygons)</p> <p>Geometry and direction: Construct using a compass to solve loci problems</p> <p>Statistics Apply statistics to describe a population. Interpret and analyse and compare</p> <p>Probability</p>	

	<p><i>Apply the four operations with mixed fractions</i></p> <p>Measures + Accuracy: Calculate the perimeter of circles and other 2d shapes Calculate the area of circles and composite shapes</p>	<p><i>exhaustive events sum to one. Enumerate sets and combinations of set systematically, using tables, grids and Venn diagrams</i></p> <p>Ratio and proportion Ratio express the division of a quantity into two parts; apply to real contexts and problems (such as those involving conversion comparison, scaling, mixing & concentrations)</p> <p>Theme week (Christmas week)</p>			<p><i>Solve problems with direct and inverse proportion</i></p> <p>Measures + Accuracy: Change between units of measure (including speed, rates of pay, unit of pricing)</p>	<p><i>Construct theoretical possibility spaces for combined experiments with equally likely outcomes and use these to calculate theoretical probabilities</i></p> <p>Ratio and proportion Compare lengths, areas and volumes using ratio notation</p> <p>Theme week (money week)</p>	
7 Skills Covered	<p>Number & place value: N4 N7</p> <p>Number calculations: N2</p> <p>Algebra: A1 A2 A4</p>	<p>Geometry; properties of shape: G1 G4 G12</p> <p>Geometry and direction: G3</p> <p>Statistics S2</p>	<p>Number calculations: N1 N2</p> <p>Algebra: A17</p> <p>Fraction, decimals and %: N8</p>	<p>Geometry; properties of shape: G5 G7</p> <p>Statistics S4</p> <p>Ratio and proportion R9</p>	<p>Number & place value: N14 N15</p> <p>Number calculations: N3</p> <p>Algebra: A8 A23 A24</p>	<p>Geometry; properties of shape: G9</p> <p>Geometry and direction: G2 G24</p> <p>Statistics S1 S2 S4</p>	

	<p>Fraction, decimals and %: N12</p> <p>Measures + Accuracy: G14 N14</p>	<p>Probability P2 P3</p> <p>Ratio and proportion R3</p> <p>Theme week</p>	<p>Measures + Accuracy: G16</p>	<p>Theme week</p>	<p>Fraction, decimals and %: R9</p> <p>Measures + Accuracy: G14 G16</p>	<p>Probability P1 P7</p> <p>Ratio and proportion R4 R5</p> <p>Theme week</p>	
Theme/ Focus/ Content	<p>Number & place value Vocabulary, types of number, prime, factors, multiples HCF LCM, square & cube numbers and roots</p> <p>Number Calculations: <i>Mental maths, recognise the inverse of calculations Financial maths</i></p> <p>Algebra: <i>Expression and substitution, simplifying expressions, Using a formula</i></p> <p>Fractions, decimals and percentage: <i>Recognising and comparing fractions, decimal</i></p>	<p>Geometry; properties of shape <i>Investigating properties of shapes 2d and 3d</i></p> <p>Geometry and direction: <i>Angles types, measuring and using rules to solve angle problems</i></p> <p>Statistics: <i>Interpreting and constructing tables, charts</i></p> <p>Probability <i>Understanding risk, probability scale</i></p> <p>Ratio and proportion <i>Express one quantity as a fraction of another. Conversion between</i></p>	<p>Number calculations: <i>Calculating with mental methods using positive and negative numbers, ordering number including positive and negative. Using inequality signs Financial maths</i></p> <p>Algebra: <i>Solving equations and inequalities</i></p> <p>Fractions, Decimals and %: <i>Calculating with fractions including mixed numbers</i></p> <p>Measure and Accuracy: <i>Area and perimeter surface area</i></p>	<p>Geometry; properties of shape <i>Identify, describe and construct congruent shapes</i></p> <p>Statistics: <i>Calculating averages</i></p> <p>Ratio & Proportion: <i>Calculating percentages change non calculator and calculator, express one amount as a percentage of another</i></p> <p>Theme week:</p>	<p>Number & place value: <i>Rounding numbers to decimal places and SF. Estimation</i></p> <p>Number calculations: <i>Understanding place value when calculating with large numbers, order of calculations</i></p> <p>Algebra: <i>Sequences term to term recognise use of sequences and plotting linear graphs</i></p> <p>Fraction, decimals and %: <i>Percentage real life problems</i></p> <p>Measures + Accuracy:</p>	<p>Geometry; properties of shape: <i>Know and apply circle definitions and properties</i></p> <p>Geometry and direction: <i>Draw diagrams form written descriptions, rotation, reflection, vectors</i></p> <p>Statistics: <i>Statistical inquiry comparing 2 sets of data</i></p> <p>Probability <i>Experimental probability, theoretical probability, sample space diagrams</i></p>	

	<p>Measures and Accuracy: Use of standard units of measure, rounding, estimating</p>	<p><i>fraction decimal and %</i></p> <p>Theme week (Christmas)</p>			<p><i>Volume and units of measure</i></p>	<p>Ratio and proportion <i>Ratio and proportion, sharing an amount in a given ratio</i> <i>Ratio real life problems</i></p> <p>Theme week (money week)</p>	
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