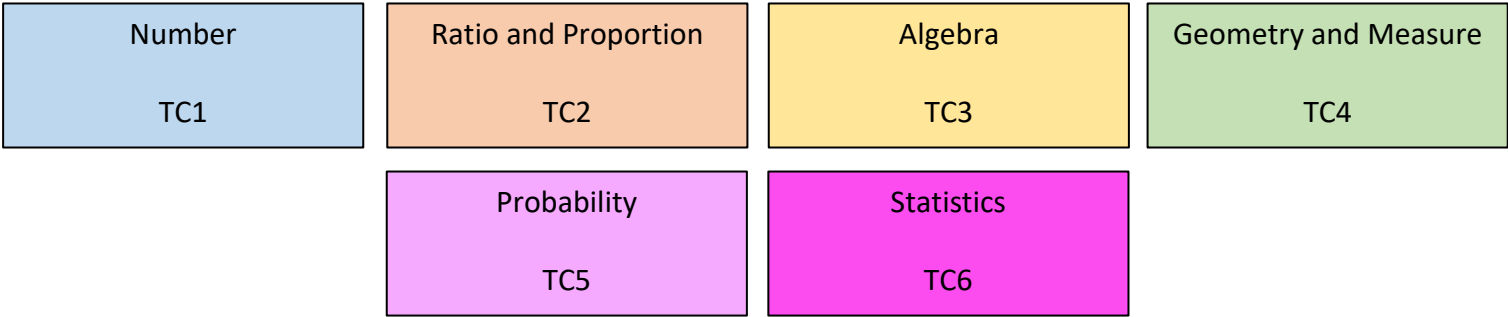


Long Term Plans: Mathematics

Threshold concepts



Within our curriculum design, we have carefully considered how to sequence and interleave the threshold concepts within our subjects so that students are able to build and develop secure schema over time. The table below shows how we have mapped our threshold concepts throughout our Mathematics curriculum.

## Year 7

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 1: [Algebra and Number]	N/A	TC3	TC3 TC1	TC3 TC1	TC3 TC1	TC3 TC1	TC3 TC1	TC3	TC3 TC1	TC3	TC1	TC1	N/A
	Orientation	Unit 1 Algebra Algebraic notation <i>Does order matter?</i>	Unit 1 Algebra Substitution <i>Directed numbers?</i>	Unit 1 Algebra Substitution <i>How do you substitute into expressions?</i>	Unit 1 Algebra Simplifying <i>What are like terms?</i>	Unit 1 Algebra Simplifying <i>What is the difference between expanding and factorising?</i>	Unit 1 Algebra Solving <i>Assessments – Whole school How do you find x?</i>	Unit 1 Algebra Solving <i>Assessments – Whole school How do you solve?</i>	Unit 1 Algebra Sequences <i>What is the next number in the sequence?</i>	Unit 1 Algebra Sequences <i>What is the general rule?</i>	Unit 2 Number Place value, inequalities, and ordering <i>Which is bigger?</i>	Unit 2 Number Four operations inc. decimals <i>Data &amp; Planning days How do we multiply numbers?</i>	Intervention week
			Mini Test/WCF		Mini Test/WCF		Mini Test/WCF		Mini Test/WCF		Mini Test/WCF	Mini Test	Mini Test/WCF

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 1
Cycle 2: [NumberCTD and Geometry]	TC1	TC1	TC1 TC3	TC1	TC1	TC1 TC2	TC4 TC1	TC4 TC1	TC4 TC1	TC4 TC1	TC4 TC1	TC4 TC1 TC3	TC2 TC1
	Unit 2 Number Four operations inc. decimals <i>How do you multiply decimals?</i>	Unit 2 Number Factors and multiples <i>What are factors?</i>	Unit 2 Number Factors and multiples <i>What's the difference between a factor and a multiple?</i>	Unit 2 Number Rounding and estimation <i>What units should we measure in?</i>	Unit 2 Number Rounding and estimation <i>Overestimate or underestimate?</i>	Unit 2 Number Application <i>Maths Assessment What do we use methods to solve non-positive and decimal number problems?</i>	Unit 3 Geometry Unit conversion <i>How do we read scales?</i>	Unit 3 Geometry Angle types, estimating, draw and measure. <i>Acute, obtuse or reflex?</i>	Unit 3 Geometry Angle types, estimating, draw and measure. <i>How do you use a protractor?</i>	Unit 3 Geometry Angle facts <i>Angles on a straight line add up to?</i>	Unit 3 Geometry Mixed angle facts <i>How many angle facts apply?</i>	Unit 3 Geometry Mixed angle facts <i>Justify how you find the angle?</i>	Unit 4 Fractions Fractions of amounts <i>Calculate a fraction of an amount?</i>
		Mini Test		Mini Test/WCF		Mini Test/WCF	Mini Test	Mini Test/WCF		Mini Test/WCF	Mini Test		Mini Test/WCF

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 3: [Fractions and Percdntages]	TC2 TC1	TC2 TC1	TC2 TC1	TC2 TC1	TC2 TC1 TC3	TC2	TC2	TC2 TC1	TC2 TC1	N/A	N/A	TC2 TC1	N/A
	Unit 4 Fractions Fraction equivalence  <i>What is an improper fraction?</i>	Unit 4 Fractions Four operations with fractions  <i>How do we multiply/divide fractions?</i>	Unit 4 Fractions Four operations with fractions  <i>How do we add/subtract fractions?</i>	Unit 4 Fractions Compare and order fractions  <i>How do you order fractions with different denominators?</i>	Unit 4 Fractions Worded fraction problems  <i>Which operation do we apply?</i>	Unit 5 Percentages FDP conversions and Ordering FDP  <i>How do you express one amount as a percentage of another?</i>	Unit 5 Percentages FDP conversions and Ordering FDP  <i>How do you convert from FDP?</i>	Unit 5 Percentages Percentages of amounts calculator  <i>How do you find a percentage of an amount (calculator)?</i>	Revision and Assessments	Revision and Assessments	Unit 5 Percentages Percentage increase and decrease non- calculator  <i>How do you find a percentage of an amount (non- calculator)?</i>	Unit 5 Percentages Simple interest  <i>What is simple interest?</i>	Intervention Week
	Mini Test/WCF		Mini Test/WCF	Mini Test	Mini Test/WCF		Mini Test/WCF	Mini Test			Mini Test/WCF	Mini Test	

## Year 8

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 1: [Probability and Statistics and Number]	N/A	TC5 TC6	TC6	TC6	TC6	TC1 TC3	TC1 TC4	TC1 TC4	TC1	TC1	TC1	TC1 TC6 TC5	TC3 TC1
	Orientation	Unit 6 – Probability and Statistics Probability scales and simple probability  <i>What is the chance of winning the Lottery?</i>	Unit 6 Probability and Statistics Probability NOT and from listing outcomes and frequency trees  <i>Why do probabilities add up to 1?</i>	Unit 6 Probability and Statistics Calculating MMR  <i>What does average mean in maths?</i>	Unit 6 Probability and Statistics Simple statistical diagrams  <i>Gaps or no gaps?</i>	Unit 6 Probability and Statistics Pie charts  <b>Maths Assessment</b>  <i>Can you compare pie charts?</i>	Unit 7 Number Index laws	Unit 7 Number Calculating with powers and roots, inc. Pythagoras  <i>What is Pythagoras' Theorem?</i>	Unit 7 Number Calculating with powers and roots, inc. Pythagoras  <i>What is the longest side of a right angled triangle called?</i>	Unit 7 Number Standard form  <i>What is the point of standard form?</i>	Unit 7 Number Prime factorisation, HCF and LCM  <i>What is the difference between LCM and HCF?</i>	Unit 7 Number Sets and Venn diagrams  <i>Who invented Venn diagrams?</i>	Unit 8 Algebra Inequalities  <i>How do you represent an inequality on a number line?</i>
			Mini Test/WCF	Mini test	Mini Test/WCF	Mini test	Mini Test/WCF		Mini Test	Mini Test/WCF	Mini test	Mini Test/WCF	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 2: [Algebra and 2D Geometry]	TC3	TC3	TC3	TC3	TC3	TC3	TC3	TC4	TC4	TC4 TC1	TC4 TC1	TC4 TC1	N/A
	Unit 8 Algebra Complex manipulation  <i>What do we mean by making the subject?</i>	Unit 8 Algebra Complex manipulation  <i>What does inverse mean?</i>	Unit 8 Algebra Forming and Solving  <i>What is a coefficient?</i>	Unit 8 Algebra Forming and Solving  <i>Why do we need to solve equations?</i>	Unit 8 Algebra Expanding and factorising binomials  <i>What does expanding mean in maths?</i>	Unit 8 Algebra Expanding and factorising binomials  <i>What does factorise mean?</i>	Unit 8 Algebra Sequences  <b>Assessments – Whole School</b>  <i>Geometric of arithmetic sequences?</i>	Unit 9 2D Geometry Constructions  <b>Assessments – Whole School</b>  <i>What is a compass?</i>	Unit 9 2D Geometry Angles in parallel lines  <i>What are the differences between corresponding, alternate and co-interior angles?</i>	Unit 9 2D Geometry Unit conversions  <i>Metric or imperial?</i>	Unit 9 2D Geometry Area of trapezia and compound shapes  <i>What is a compound shape?</i>	Unit 9 2D Geometry Area of trapezia and compound shapes  <b>Data &amp; Planning days</b>  <i>What is the formula for finding the area of a trapezium?</i>	<b>Intervention week</b>
	Mini Test/WCF		Mini Test/WCF		Mini Test/WCF		Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF		Mini Test

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 3: [Proportional Reasoning ]	<i>TC4</i> <i>TC1</i>	<i>TC4</i> <i>TC1</i>	<i>TC1</i> <i>TC2</i> <i>TC1</i>	<i>TC1</i> <i>TC2</i> <i>TC1</i>	<i>TC1</i> <i>TC2</i> <i>TC1</i>	<i>TC1</i> <i>TC2</i> <i>TC1</i>	<i>TC1</i> <i>TC2</i> <i>TC1</i>	<i>TC1</i> <i>TC2</i> <i>TC1</i>	<i>N/A</i>	<i>N/A</i>	<i>TC1</i> <i>TC2</i> <i>TC1</i>	<i>TC1</i> <i>TC2</i> <i>TC1</i>	<i>N/A</i>
	Unit 9 2D Geometry Circles  <i>What does R17 or R18 or R19 on car tires mean?</i>	Unit 9 2D Geometry Circles  <i>What is the formula for the area of a circle?</i>	Unit 10 Proportional Reasoning Percentage of amounts non calc and calc  <i>What is a percentage?</i>	Unit 10 Proportional Reasoning Percentage increase/decrease calc  Percentages on a calculator?	Unit 10 Proportional Reasoning Percentage increase/decrease non calc and calc  <i>When would you see percentage increase/decrea se in the real world?</i>	Unit 10 Proportional Reasoning Reverse percentages  <i>What does reverse percentage mean?</i>	Unit 10 Proportional Reasoning Compound interest  <i>What's the difference between compound interest and simple interest?</i>	Unit 10 Proportional Reasoning Ratio  <i>What is a ratio?</i>	Revision and Assessments	Revision and Assessments	Unit 10 Proportional Reasoning Ratio  <i>What does 2:3:4 mean?</i>	Unit 10 Proportional Reasoning Compound measures  <i>What units can speed be measured in?</i>	Intervention Week
	Mini Test/WCF		Mini test		Mini Test/WCF	Mini test	Mini Test/WCF	Mini Test	Mini Test/WCF			Min Test	Mini Test/WCF

## Year 9

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 1: [3D Geometry and Statistics]	N/A	TC4	TC4 TC1	TC4 TC1 TC3	TC4 TC1 TC3	TC4 TC1 TC3	TC6	TC6	TC6 TC1	TC6 TC1	TC6	TC6	N/A
	Orientation	Unit 11 3D Geometry Solids' properties, nets, plans, elevations  <i>What does plan mean?</i>	Unit 11 3D Geometry Surface area  <i>What is a net?</i>	Unit 11 3D Geometry Volume of prisms  <i>What is a cross-section?</i>	Unit 11 3D Geometry Volume of cylinders, cones and pyramids  <i>What's the area of the base?</i>	Unit 11 3D Geometry Volume of cylinders, cones and pyramids  <i>What is a frustum?</i>	Unit 12 Statistics Collecting and organising data  What is the key?  <i>Assessments – Whole School</i>	Unit 12 Statistics Interpret and compare statistical representations  Correlation or causation?  <i>Assessments – Whole School</i>	Unit 12 Statistics MMMR from a frequency table  <i>Why use a frequency table?</i>	Unit 12 Statistics MMMR from a frequency table  <i>What is a class interval?</i>	Unit 12 Statistics Frequency diagrams  <i>What is a frequency polygon?</i>	Unit 12 Statistics Identifying errors and misconceptions in statistical diagrams  <i>How do you question the validity of statistical diagrams?</i>  <i>Data &amp; Planning days</i>	<i>Intervention week</i>
			Mini Test/WCF	Mini Test	Mini Test/WCF		Mini Test/WCF	Mini Test	Mini Test/WCF	DIRT	Mini Test/WCF	Mini Test	Mini Test/WCF

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 1
Cycle 2: [Graphs and Proportion and Algebraic Expressions]	TC3	TC3 TC1	TC3 TC1	TC3 TC1	TC3 TC1	TC3 TC1	TC3 TC1	TC3 TC1	TC3 TC1	TC3 TC1	TC3	TC3	TC4 TC1
	Unit 13 Graphs and Proportion Linear functions  <i>Linear or non linear?</i>	Unit 13 Graphs and Proportion Direct proportion  <i>What is direct proportion?</i>	Unit 13 Graphs and Proportion Inverse proportion  <i>What is inverse proportion?</i>	Unit 13 Graphs and Proportion Scale  <i>Why do we use a scale?</i>	Unit 14 Algebraic Expressions Sequences  <i>What is the nth term?</i>	Unit 14 Algebraic Expressions Expanding  <i>Expanding triple brackets?</i>	Unit 14 Algebraic Expressions Factorising  <i>Maths Assessment</i>  <i>Why do we factorise quadratics?</i>	Unit 14 Algebraic Expressions Factorising  <i>Difference of two squares?</i>	Unit 14 Algebraic Expressions Solving  <i>How can you check the solution is correct?</i>	Unit 14 Algebraic Expressions Solving  <i>How many solutions do quadratics equations have?</i>	Unit 14 Algebraic Expressions Transposing Formulae  <i>What does transposition mean?</i>	Unit 14 Algebraic Expressions Transposing Formulae  <i>Why do we factorise when transposing formulae?</i>	Unit 15 2D Geometry Constructions and Loci  <i>What is Loci?</i>
		Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF		Mini Test/WCF		Mini Test/WCF		Mini Test/WCF	Mini Test

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 3: [2D Geometry and Algebra Graphs]	<i>TC4 TC1</i>	<i>TC4 TC1</i>	<i>TC3 TC4 TC1</i>	<i>TC3 TC4 TC1</i>	<i>TC3 TC1</i>	<i>TC3</i>	<i>TC3 TC1</i>	<i>TC3 TC1</i>	<i>TC3 TC1</i>			<i>TC3 TC1</i>	
	Unit 15 2D Geometry Angles in polygons  <i>What is the difference between an interior and exterior angle?</i>	Unit 15 2D Geometry Congruency and Similarity  <i>What does Congruency mean?</i>	Unit 15 2D Geometry Arcs and sectors  <i>What is the difference between an arc and a sector?</i>	Unit 15 2D Geometry Arcs and sectors  <i>How do you find the area of a sector?</i>	Unit 16 Algebra Graphs Form and solve inequalities  <i>What is the difference between solving an equation and solving an inequality?</i>	Unit 16 Algebra Graphs Graphing inequalities and identifying regions  <i>How do we represent inequalities on a graph?</i>	Unit 16 Algebra Graphs Simultaneous equations  <i>How do we eliminate terms?</i>	Unit 16 Algebra Graphs Simultaneous equations  <i>Why is it called simultaneous equations?</i>	Unit 16 Algebra Graphs Quadratic graphs  <i>What is the difference between a positive and negative quadratic graph?</i>	Revision and Assessments	Revision and Assessments	Unit 16 Algebra Graphs Other algebraic graphs  <i>What does a reciprocal graph look like?</i>	Intervention Week
		Mini Test/WCF	Mini Test		Mini Test/WCF		Mini Test/WCF		Mini Test/WCF				Mini Test/WCF

## Year 10 Higher

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 1: [Triangles & Transformations and Probability & Statistics]	N/A	TC4	TC4	TC4	TC4	TC4	TC4 TC1	TC4 TC1	TC5	TC6	TC6	TC6	TC6
	Orientation	Unit 17 Triangles and Transformations Pythagoras' theorem inc. 3D  <i>What is Pythagoras theorem?</i>	Unit 17 Triangles and Transformations Pythagoras' theorem inc. 3D  <i>What is a hypotenuse?</i>	Unit 17 Triangles and Transformations Trigonometry  <i>What are the trigonometric ratios?</i>	Unit 17 Triangles and Transformations Trigonometry (inc. graphs)  <i>What are the exact trigonometric values?</i>	Unit 17 Triangles and Transformations Reflection, translation, and rotation  <i>What is translation in mathematics?</i>	Unit 17 Triangles and Transformations Enlargement, inc. negative and fractional  <i>How does a negative and fractional scale factor change an enlargement?</i>	Unit 17 Triangles and Transformations Mixed transformation  <i>What are the four types of transformations?</i>	Unit 18 Probability and Statistics Experimental probability and Probability of combined events  <i>What is the AND and OR rule in probability?</i>	Unit 18 Probability and Statistics MMMR from a frequency table  <i>How do we find a mean from a frequency table?</i>	Unit 18 Probability and Statistics Cumulative frequency and box plots  <i>What does a cumulative frequency graph look like?</i>	Unit 18 Probability and Statistics Cumulative frequency and box plots CTD  <i>What is a box plot?</i>	Unit 18 Probability and Statistics Compound measures  <i>What is a compound measure?</i>
			Mini Test/WCF		Mini Test/WCF		Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF		Mini Test

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 1
Cycle 2: [Algebra graphs and Limits and & Geometry]	TC3	TC3	TC3	TC3	TC3	TC1	TC1	TC1 TC4	TC1 TC4	TC4	TC4	TC5	N/A
	Unit 19 Algebra Graphs Line segments  <i>What is a segment?</i>	Unit 19 Algebra Graphs Equation of a line from coordinates  <i>What is meant by the gradient?</i>	Unit 19 Algebra Graphs Parallel and perpendicular lines  <i>What is the difference between parallel/perpendicular?</i>	Unit 19 Algebra Graphs Sketching quadratics  <i>What is the trapezium rule?</i>	Unit 19 Algebra Graphs Gradient of and area under curves  <i>What is a tangent?</i>	Unit 20 Limits and 3D Geometry Estimation  <i>What is a significant figure?</i>	Unit 20 Limits and 3D Geometry Bounds of accuracy  <i>Assessments – Whole School</i>  <i>How do we calculate a lower and upper bound?</i>	Unit 20 Limits and 3D Geometry Volume and S.A  <i>Assessments – Whole School</i>  <i>How do we find the surface area of a prism?</i>	Unit 20 Limits and 3D Geometry Volume and S.A  <i>How do we find the volume of a prism?</i>	Unit 20 Limits and 3D Geometry Plans and Elevations  <i>Where are plans and elevations used in the real world?</i>	Unit 20 Limits and 3D Geometry 3D Geometry Applications  <i>Adjacent, Opposite or Hypotenuse?</i>	Unit 21 Probability Outcomes inc. product rule and sample space  <i>Data &amp; Planning days</i>  <i>Product rule for counting?</i>	<i>Intervention week</i>
		Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF		Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 3: [Probability and Number]	<b>TC6</b>	<b>TC6 TC5</b>	<b>TC5</b>	<b>TC5</b>	<b>TC1</b>	<b>TC1</b>	<b>TC1</b>	<b>TC1 TC2</b>	<b>TC1</b>	<b>N/A</b>	<b>N/A</b>	<b>TC1 TC2</b>	<b>N/A</b>
	<b>Unit 21 Probability</b> Understanding and using sampling  <i>Is it fair?</i>	<b>Unit 21 Probability</b> Venn diagrams  <i>How do we find probabilities from a Venn Diagram?</i>	<b>Unit 21 Probability</b> Probability of combined events  <i>What is the AND and OR rule in probability?</i>	<b>Unit 21 Probability</b> Conditional probability  <i>How can one probability affect another?</i>	<b>Unit 22 Number</b> Index laws inc. equations, fractional and negative  <i>What are the index laws?</i>	<b>Unit 22 Number</b> Standard form calculations  <i>What are the principles of standard form?</i>	<b>Unit 22 Number</b> Standard form calculations  <i>Standard form on a calculator?</i>	<b>Unit 22 Number</b> Interest inc. growth and decay  <b>Growth or Decay?</b>	<b>Unit 22 Number</b> Surds  <i>What is a surd?</i>	<b>Revision and Assessments</b>	<b>Revision and Assessments</b>	<b>Unit 22 Number</b> Ratio  <i>What does it mean to put a ratio in the form 1:n?</i>	<b>Intervention Week</b>
		Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF		Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF			Mini Test

## Year 10 Foundation

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 1: [Triangles & Transformations and Statistics]	Orientation	TC4	TC4	TC4	TC4	TC4	TC4 TC1	TC4 TC1	TC6 TC1	TC6 TC1	TC6 TC1	TC6	TC6
	Unit 17 Triangles and Transformations Pythagoras' theorem  What is Pythagoras theorem?	Unit 17 Triangles and Transformations Pythagoras' theorem inc. 3D  What is a hypotenuse?	Unit 17 Triangles and Transformations Trigonometry  What are the trigonometric ratios?	Unit 17 Triangles and Transformations Trigonometry  What are the exact trigonometric values?	Unit 17 Triangles and Transformations Reflection, translation, and rotation  What is translation in mathematics?	Unit 17 Triangles and Transformations Enlargement,  What is a scale factor?	Unit 17 Triangles and Transformations Mixed transformation  What are the four types of transformations?	Unit 18 Statistics MMMR from raw and grouped data, compare data sets  How do we compare data?	Unit 18 Statistics Stem & Leaf (include calc averages), pictograms, bar charts (composite), line graphs,  How do we interpret a Stem and Leaf diagram?	Unit 18 Statistics Comparing graphs, Frequency polygons,  How do we compare graphs?	Unit 18 Statistics Pie charts  Are pie charts a good way of representing data?	Unit 18 Statistics Scatter graphs  Positive or negative correlation?	
			Mini Test/WCF	Mini Test	Mini Test/WCF		Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF

[illegible]

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 3: [Probability and Number]	TC4	TC6	TC5	TC5	TC5	TC1	TC1	TC1	TC1	N/A	N/A	TC1	
	Unit 20 Limits and 3D Geometry Volume of 3D shapes, converting area and volume measures  <i>Can area units be converted?</i>	Unit 21 Probability Sampling, List outcomes, product rule, scales, single events, not happening  <i>What makes a fair sample?</i>	Unit 21 Probability Theoretical / experimental, expected frequency, bias  <i>What does mutually exclusive means?</i>	Unit 21 Probability Independent events, probability of combined events {frequency trees, two-way tables, and sample space)  <i>How do we complete a two way table?</i>	Unit 21 Probability Probability of combined events including conditional (and/or rules) {Tree diagrams}, Venn Diagrams  <i>What is the AND and OR rule in probability?</i>	Unit 22 Number Working with money. Four operations (integers and decimals)  <i>Do units matter when dealing with money?</i>	Unit 22 Number Indices and index laws (multiply, divide, brackets, basic negative).  <i>What are the index laws?</i>	Unit 22 Number Standard Form  <i>What is the correct format for standard form?</i>	Unit 22 Number Factors, multiples, HCF and LCM, Prime factorisation (include HCF and LCM)  <i>How do we use prime factorisation to find HCF and LCM?</i>	Revision and Assessments	Revision and Assessments	Unit 22 Number FDP equivalence (inc ordering) Four operations with fractions (inc. simplifying and converting to mixed number)  <i>How do we convert decimals to fractions to percentages?</i>	Intervention Week
		Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test			Mini Test/WCF	

## Year 11 Higher

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 1: [Algebra & 2D Geometry]	Orientation	TC3 TC1	TC3 TC1	TC3 TC1	TC3 TC1	TC3 TC1	TC3 TC1	TC4 TC1 TC3	TC4 TC1 TC3	N/A	N/A	TC4 TC1	TC4 TC1
		Unit 23 Algebra Algebraic Fractions  <i>What are the similarities between manipulating fractions and algebraic fractions?</i>	Unit 23 Algebra Solving quadratic equations  <i>Why do we factorise?</i>	Unit 23 Algebra Solving quadratic equations  <i>What is the discriminant and why is it so useful?</i>	Unit 23 Algebra Quadratic graphs  <i>What are the properties of quadratic curves?</i>	Unit 23 Algebra Non-Linear Simultaneous Equations  <i>How solutions can you get when solving quadratic simultaneous equations?</i>	Unit 23 Algebra Functions  <i>What does <math>fg(x)</math> mean?</i>	Unit 24 2D Geometry Trig inc. SOGCAHTOA, 3D, sine and cosine rule, area  <i>What is the Cosine rule?</i>	Unit 24 2D Geometry Trig inc. SOGCAHTOA, 3D, sine and cosine rule, area  <i>How do we find the area using the cosine rule?</i>	Mock Examinations 1	Mocks Examinations 1	Unit 24 2D Geometry Loci  <i>Is Loci applicable to the real world?</i>	Unit 24 2D Geometry Bearings (including with trig)  <i>How do you combine trigonometry and bearings?</i>
			Mini Test/WCF		Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF		Mini Test/WCF			Mini Test/WCF

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 1
Cycle 2: [Number and Algebra]	TC4 TC1	TC4 TC1	TC1 TC3	TC1 TC3	TC1 TC3	TC1 TC3	N/A	N/A	TC1 TC3				
	Unit 24 2D Geometry Vectors inc. column and vector geometry  <i>What are vectors?</i>	Unit 24 2D Geometry Vectors inc. column and vector geometry  <i>Can you combine vectors, if so why?</i>	Unit 25 Number and Algebra Circle Theorems  <i>What are the different circle theorems?</i>	Unit 25 Number and Algebra Function Transformations  <i>How do you reflect a graph in the y axis?</i>	Unit 25 Number and Algebra Graphing Proportion  <i>What is proportion?</i>	Unit 25 Number and Algebra Iteration and Recursion  <i>What is iteration and recursion?</i>	Examinations Mocks 2	Examinations Mocks 2	Unit 25 Number and Algebra Algebraic and Geometric Proof  <i>What are the different types of proof?</i>	Revision	Revision	Revision	Revision
		Mini Test/WCF		Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test			Mini Test/WCF			

[illegible]

## Year 11 Foundation

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 1: [Algebra]	Orientation	TC3 TC1	TC3 TC1	TC3	TC3 TC1	TC3 TC1	TC3 TC1	TC3 TC1	TC3 TC1	N/A	N/A	TC3 TC1	TC3 TC1
		Unit 23 Algebra Forming expressions Simplifying terms	Unit 23 Algebra Substitution  <i>What is a substitution in mathematics?</i>	Unit 23 Algebra Transposing formula  <i>What does transposing mean in maths?</i>	Unit 23 Algebra Expanding brackets (inc. binomials)  <i>Expand brackets?</i>	Unit 23 Algebra Factorise linear and simple quadratics.  <i>What is a quadratic?</i>	Unit 23 Algebra Solving equations (inc. brackets, fractions, and unknowns on both sides)  <i>How do you solve an equation with unknowns on both sides?</i>	Unit 23 Algebra Form and solve simultaneous equations.  <i>What does elimination mean when solving simultaneous equations?</i>	Unit 23 Algebra Form and solve equations from words and geometric problems.  <i>Construct an equation?</i>	Mock Examinations 1	Mocks Examinations 1	Unit 23 Algebra Solve inequalities (Inc. compound and represent on number lines etc.)  <i>Can you identify what values inequalities represent?</i>	Unit 23 Algebra Sequences (basic, types, nth term and problem solve)  <i>What is the millionth term?</i>
			Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test		Mini Test/WCF		Mini Test/WCF	Mini Test

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 2: [Geometry and Proportional Reasoning]	TC4 TC1	TC4 TC1	TC4 TC1	TC4 TC3 TC1	TC2 TC1	TC2 TC1	N/A	N/A	TC2 TC1	TC2 TC1	TC2 TC1		
	Unit 24 2D Geometry Mixed angle fact problems	Unit 24 2D Geometry Parallel lines, polygons  <i>How do you find the interior angle of a regular polygon?</i>	Unit 24 2D Geometry Scaling (scales, drawings), constructions and loci problems, bearings  <i>How are bearings and angles related?</i>	Unit 24 2D Geometry SDT (inc. graphs) Density, pressure  <i>What is the formula for pressure?</i>	Unit 25 Proportional Reasoning Percentages of amounts (calc and non-calc). Percentages increase and decrease (calc and non-calc) <i>Why are percentages so important in the real world?</i>	Unit 25 Proportional Reasoning Percentage change repeated % change.  <i>Repeated percentage change?</i>	Examinations Mocks 2	Examinations Mocks 2	Unit 25 Proportional Reasoning Percentage interest and depreciation (simple and compound)  <i>How do we compare Mortgages or loans or credit card or investments?</i>	Unit 25 Proportional Reasoning Reverse %. Proportion (direct and inverse worded), Recipes and best buy  <i>Explain the difference between direct and inverse proportion?</i>	Unit 25 Proportional Reasoning Ratio (write, fraction, simplify, combine 2 ratios, share given total, share given difference or a value)  <i>How do you combine two ratios?</i>	Revision	Revision
		Mini Test/WCF	Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF			Mini Test	Mini Test/WCF	Mini Test	Mini Test/WCF	

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