Curriculum Assessment Map   Year: 7   Subject: Mathematics

Year 7	Intent		Implementation		Impact	
Autumn	Taught curriculum (teacher Led)	Learned curriculum (student Led)	Key skills demonstrated	Suggested wider activities including extra-curricular opportunities	Summative assessment Title/type	Assessment criteria
1	1. Place value - ordering integers and decimals	Place Value - Maths Genie Averages and Range - Maths Genie Rounding - Maths Genie Mathswatch - Ordering Integers Clip2 Mathswatch Ordering Decimals Clip3	• Recognise the place value of any number in an integer up to one billion • Understand and write integers up to one billion in words and figures • Work out intervals on a number line • Position integers on a number line • Round integers to the nearest power of ten • Compare two numbers using =, ≠, <, >, ≤, ≥ • Order a list of integers • Find the range of a set of numbers • Find the median of a set of numbers • Understand place value for decimals • Position decimals on a number line • Compare and order any number up to one billion • Round a number to one significant figure • Given a numerical	STEM Club Maths Club - help with work/revision/challenge and extension/support	One short assessment, with a total of 20 marks, in class. This can be through a formal test, homework or online assessment. Please note, these assessments are created to the teachers' discretion and will therefore vary from class to class.	See key skills demonstrated

Curriculum Assessment Map　　　　Year: 7　　　　Subject: Mathematics

	2. Equality and equivalence	[Function Machines - Maths Genie](#) [One-step Equations - Maths Genie](#) [Substitution - Maths Genie](#) [MathsWatch Function Machines and Inverse Operations N26](#) [Mathswatch-Substitution](#)	input, find the output of a single function machine ● Use inverse operations to find the input given the output Use diagrams and letters to generalise number operations ● Use diagrams and letters with single function machines ● Find the function machine given a simple expression ● Substitute values into single operation expressions ● Find numerical inputs and outputs for a series of two function machines ● Use diagrams and letters with a series of two function machines ● Find the function machines given a two-step expression ● Substitute values into two-step expressions ● Generate sequences given an algebraic rule ● Represent one- and two-step functions graphically			
	3. Sequences		● Describe and continue a sequence given diagrammatically ● Predict and check the next terms) of a sequence			

		[Sequences Term to Term Rule MW](#) [Sequences Position to Term MW](#) [Number Patterns MW](#) [Sequences - Maths Genie](#) [Sequences - Oak National Academy](#)	- Represent sequences in tabular and graphical forms - Recognise the difference between linear and non-linear sequences - Continue numerical linear sequences - Continue numerical non-linear sequences - Explain the term-to-term rule of numerical sequences in words - Find missing numbers within sequences		
2	1. Equality and Equivalence	[Forming and Solving Equations - Oak National Academy](#) [Forming and Solving Inequalities - Oak National Academy](#) [Solving basic equations MW](#)	- Understanding the meaning of equality - Understand and use fact families, numerically and algebraically - Solve one-step linear equations involving +/−using inverse operations - Solve one-step linear equations involving ×/÷using inverse operations - Understand the	One 45 minute assessment, with a total of 40 marks, at the end of half term two. Knowledge Organisers to support revision and home learning will be posted on Google Classroom prior to	See key skills demonstrated

Curriculum Assessment Map   **Year: 7**   **Subject: Mathematics**

		[Collecting like terms MW](#)	meaning of like and unlike terms ● Understanding the meaning of equivalence ● Simplify algebraic expressions by collecting like terms, using the ≡symbol		assessments.
	2. Fractions, decimals and percentage equivalence	[Fractions, Decimals and Percentages - Oak National Academy](#) [Fractions, Decimals and Percentages - Maths Genie](#)	● Represent tenths and hundredths as diagrams ● Represent tenths and hundredths on number lines ● Interchange between fractional and decimal number lines ● Convert between fractions and decimals –tenths and hundredths ● Convert between fractions and decimals –fifths and quarters ● Convert between fractions and decimals –eighths and thousandths ● Understand the meaning of percentage using a hundred square ● Convert fluently between simple fractions, decimals and percentages ● Use and interpret pie charts		

	3. Solving problems - addition and subtraction	Adding integers written method MW Addition Decimals MW Addition - Perimeter MW Subtracting integers written method MW Subtracting Decimals MW Addition and Subtraction Mathsgenie Standard form Mathgenie	• Properties of addition and subtraction • Mental strategies for addition and subtraction • Use formal methods for addition of integers • Use formal methods for addition of decimals • Use formal methods for subtraction of integers • Use formal methods for subtraction of decimals • Choose the most appropriate method: Subtraction written method MWmental strategies, formal written or calculator • Solve problems in the context of perimeter • Solve financial maths problems • Solve problems involving tables and timetables • Solve problems with frequency trees • Solve problems with bar charts and line charts • Add and subtract numbers given in standard form			
3	1. Solving problems - multiplication and division	Short Multiplication MW Short Multiplication Decimals MW Multiply and Divide Integers by	• Properties of multiplication and division • Understand and use factors • Understand and use multiples • Multiply and divide		One short assessment, with a total of 20 marks, in class. This can be through a formal test, homework or online assessment.	See key skills demonstrated

Curriculum Assessment Map   Year: 7   Subject: Mathematics

		Powers of 10 Multiply and Divide Decimals by Powers of 10 MW Area MW Short Division integers Long Division Integers MW Division Decimals MW	integers and decimals by powers of 10 ● Multiply by 0.1 and 0.01 ● Convert metric units ● Use formal methods to multiply integers ● Use formal methods to multiply decimals ● Use formal methods to divide integers ● Use formal methods to divide decimals ● Understand and use order of operations ● Solve problems using the area of rectangles and parallelograms ● Solve problems using the area of triangles ● Solve problems using the area of trapezia ● Solve problems using the mean ● Explore multiplication and division in algebraic expressions		Please note, these assessments are created to the teachers' discretion and will therefore vary from class to class.	
	2. Fractions and percentages of amounts	Fraction of an amount MW Percentage of an amount	● Find a fraction of a given amount ● Use a given fraction to find the whole and/or other fractions ● Find a percentage of a given amount using mental methods ● Find a percentage of a given amount using a calculator ● Solve problems with fractions greater than 1 and percentages			

			greater than 100%			
4	1. Operations and equations (directed number)	Ordering Integers MW Add and Subtract Directed Numbers MW	● Understand and use representations of directed numbers ● Order directed numbers using lines and appropriate symbols ● Perform calculations that cross zero ● Add directed numbers ● Subtract directed numbers ● Multiplication of directed numbers ● Multiplication and division of directed numbers ● Use a calculator for directed number calculations ● Evaluate algebraic expressions with directed number ● Introduction to two step equations ● Solve two step equations ● Use order of operations with directed numbers ● Roots of positive numbers ● Explore higher powers and roots		One 45 minute assessment, with a total of 40 marks, at the end of half term four. Knowledge Organisers to support revision and home learning will be posted on Google Classroom prior to assessments	See key skills demonstrated
	2. Addition and subtraction of fractions	Fractions MW - Choose Clip	● Understand representations of fractions ● Convert between mixed numbers and fractions			

		[Fractions - Mathsgenie](#)	- Add and subtract unit fractions with the same denominator - Add and subtract fractions with the same denominator - Add and subtract fractions from integers expressing the answer as a single fraction - Understand and use equivalent fractions - Add and subtract fractions where denominators share a simple common multiple - Add and subtract fractions with any denominator - Add and subtract improper fractions and mixed numbers - Use fractions in algebraic contexts - Use equivalence to add and subtract decimals and fractions - Add and subtract simple algebraic fractions			
5	1. Construction, measuring and geometric notation	[Construction MW Choose Clip](#) [Measuring Angles MW](#) [Drawing Angles MW](#)	- Understand and use letter and labelling conventions including those for geometric figures - Draw and measure line segments including geometric figures - Understand angles as a measure of turn - Classify angles		One short assessment, with a total of 20 marks, in class. This can be through a formal test, homework or online assessment. Please note, these assessments are created to the	See key skills demonstrated

Curriculum Assessment Map   **Year: 7**   **Subject: Mathematics**

		[Pie Charts MW](#)	- Measure angles up to 180° - Draw angles up to 180° - Draw and measure angles between 180° and 360° - Identify perpendicular and parallel lines - Recognise types of triangle - Recognise types of quadrilateral - Identify polygons up to a decagon - Construct triangles using SSS - Construct triangles using SSS, SAS and ASA - Construct more complex polygons - Interpret simple pie charts using proportion - Interpret pie charts using a protractor - Draw pie charts		teachers' discretion and will therefore vary from class to class.
	2. Developing geometric reasoning	[Angles in a Triangle MW](#) [Angles and Parallel lines MW](#) [Angles - Mathsgenie](#)	- Understand and use the sum of angles at a point - Understand and use the sum of angles on a straight line - Understand and use the equality of vertically opposite angles - Know and apply the sum of angles in a triangle - Know and apply the sum of angles in a		

			quadrilateral ● Solve angle problems using properties of triangles and quadrilaterals ● Solve complex angle problems ● Find and use the angle sum of any polygon ● Investigate angles in parallel lines ● Understand and use parallel line angle rules ● Use known facts to obtain simple proofs			
6	1. Developing number sense	Addition Mentally MW Subtraction Mentally MW Estimations answers Multiplication MW Estimating Answers Subtraction MW	● Know and use mental addition and subtraction strategies for integers ● Know and use mental multiplication and division strategies for integers ● Know and use mental arithmetic strategies for decimals ● Know and use mental arithmetic strategies for fractions ● Use factors to simplify calculations ● Use estimation as a method for checking mental calculations ● Use known number facts to derive other facts ● Use known algebraic facts to derive other facts ● Know when to use a mental strategy, formal		One 45 minute assessment, with a total of 40 marks, at the end of half term six. Knowledge Organisers to support revision and home learning will be posted on Google Classroom prior to assessments	See key skills demonstrated

			written method or a calculator		
	2. Sets and probability	Venn Diagrams MW Probability Scale MW	● Identify and represent sets ● Interpret and create Venn diagrams ● Understand and use the intersection of sets ● Understand and use the union of sets ● Understand and use the complement of a set ● Know and use the vocabulary of probability ● Generate sample spaces for single events ● Calculate the probability of a single event ● Understand and use the probability scale ● Know that the sum of probabilities of all possible outcomes is 1		
	3. Prime numbers and proof	Factors MW Multiples MW HCF and LCM MW	● Find and use multiples ● Identify factors of numbers and expressions ● Recognise and identify prime numbers ● Recognise square and triangular numbers ● Find common factors of a set of numbers including the HCF ● Find common multiples		

			of a set of numbers including the LCM ● Write a number as a product of its prime factors ● Use a Venn diagram to calculate the HCF and LCM ● Make and test conjectures ● Use counterexamples to disprove a conjecture			

Curriculum Assessment Map   Year: 8   Subject: Mathematics

Year 8	INTENT		IMPLEMENTATION		IMPACT	
Half Term	Taught Curriculum	Learned Curriculum	Key Skills Demonstrated	Suggested wider activities including extracurricular opportunities	Summative Assessment Title/Type	Assessment Criteria
1	1. Prime Numbers and Proof	Factors and Multiples - Maths Genie LCM and HCF - Maths Genie	• Find and use multiples. • Identify factors of numbers and expressions. • Recognise and identify prime numbers. • Find common factors of a set of numbers including the HCF (Highest common factor). • Find common multiples of a set of numbers including the LCM (Lowest common multiple). • Write a number as a product of its prime factors. • Use a Venn Diagram to calculate the HCF and LCM (higher tier). • Make and test conjectures. • Use counterexamples to disprove a conjecture.	STEM Club Maths Club (JOc going to start in Sept? - help with work/revision/challenge and extension/support)?	One short assessment, with a total of 20 marks, in class. This can be through a formal test, homework or online assessment. Please note, these assessments are created to the teachers' discretion and will therefore vary from class to class.	See key skills demonstrated
	2. Ratio and Scale	Ratio - Oak National Academy	• Understand the meaning and representation of ratio. • Understand and use ratio notation. • Solve problems			

		involving ratios of the form 1:n (or n:1). ● Solve proportional problems involving the ratio m:n. ● Divide a value in a given ratio. ● Express ratios in their simplest integer form. ● Express ratios in the form 1:n (higher tier). ● Compare ratios and related fractions. ● Understand π as the ratio between diameter and circumference. ● Understand the gradient of a line as a ratio. (higher tier).	
3. Multiplicative Change	[Direct and Indirect Proportion - Oak National Academy](#) [Similar Shapes - Oak National Academy](#)	● Solve problems including direct proportion. ● Explore conversion graphs. ● Convert between currencies. ● Explore direct proportion graphs (higher tier). ● Explore relationships between similar shapes. ● Understand scale factors as multiplicative representations. ● Draw and interpret scale diagrams. ● Interpret maps using scale factors and ratios.	

		4. Fractions (four operations)	[Calculating with Fractions - Oak National Academy](#) [Fractions (Four Operations) - Maths Genie](#)	• Represent multiplication of fractions. • Multiply a fraction by an integer. • Find the product of a pair of unit fractions. • Find the product of a pair or any fractions. • Divide an integer by a fraction. • Divide a fraction by a unit fraction. • Understand and use the reciprocal. • Divide any pair of fractions. • Multiply and divide improper and mixed fractions (higher tier). • Multiply and divide algebraic fractions (higher tier).		
2		1. The Cartesian Plane	[Straight Line Graphs - Maths Genie](#) [Linear Graphs - Oak National Academy](#)	• Work with coordinates in all four quadrants. • Identify and draw lines that are parallel to the axes. • Recognise and use the line y = x. • Recognise and use lines of the form y = kx. • Link y = kx to direct proportion. • Explore the gradient of the line y = kx (higher tier). • Recognise and use lines of the form y = x + a. • Explore graphs with a	One 45 minute assessment, with a total of 40 marks, at the end of half term two. Knowledge Organisers to support revision and home learning will be posted on Google Classroom prior to assessments.	See key skills demonstrated

			- negative gradient. - Link graphs to linear sequences. - Plot graphs of the form y = mx + c. - Explore non-linear graphs (higher tier). - Find the midpoint of a line segment. (Higher tier).			
	2. Representing Data	[Scatter Diagrams MW](#) [Frequency Tables Ungrouped Data MW](#) [Frequency Tables Grouped Data MW](#) [Two Way Tables MW](#)	- Draw and interpret scatter graphs. - Understand and describe linear correlation. - Draw and use the line of best fit. - Identify non-linear relationships. - Identify different types of data. - Read and interpret ungrouped frequency tables. - Read and interpret grouped frequency tables. - Represent grouped discrete data. - Represent continuous data grouped into equal classes. - Represent data in two-way tables.			
	3. Tables and Probability	[Two Way Tables Probability MW](#)	- Construct sample spaces for 1 or more events. - Find probabilities from a sample space.			

		[Product Rule for Counting HIGHER MathsGenie](#)	• Find probabilities from two-way tables. • Find probabilities from Venn diagrams. • Use the product rule for finding the total number of possible outcomes (Higher tier).			
3	1. Operations, Equations and Inequalities with Directed Number	[Form and Solve Algebraic Equations MW](#) [Expand Brackets MW](#) [Expand Brackets Harder MW](#) [Solve Inequalities MW](#) [Solve Equations with Brackets and Fractions MW](#)	• Form algebraic expressions. • Use directed numbers with algebra. • Multiply out a single bracket. • Factorise into a single bracket. • Expand multiple single brackets and simplify. • Expand a pair of binomials (higher tier). • Solve equations, including with brackets. • Form and solve equations with brackets. • Understand and solve simple inequalities.		One short assessment, with a total of 20 marks, in class. This can be through a formal test, homework or online assessment. Please note, these assessments are created to the teachers' discretion and will therefore vary from class to class.	See key skills demonstrated
	2. Indices	[Working with Indices MW](#)	• Adding and subtracting expressions with indices. • Simplifying algebraic expressions by multiplying indices.			

			- Simplifying algebraic expressions by dividing indices. - Using the addition law for indices. - Using the addition and subtraction law for indices. - Exploring powers of powers.		
4	1. Fractions and Percentages	Fractions Choose Clip MW Percentages Choose Clip MW	- Convert fluently between key fractions, decimals and percentages. (recap). - Calculate fractions, decimals and percentages of an amount without a calculator (recap). - Calculate fractions, decimals and percentages of an amount using calculator methods (recap). - Convert between decimals and percentages greater than 100%. - Percentage decrease with a multiplier. - Calculate percentage increase and decrease using a multiplier. - Express one number as a fraction or percentage of another without a calculator. - Express one number as a fraction or a percentage of another using calculator methods.		One 45 minute assessment, with a total of 40 marks, at the end of half term four. Knowledge Organisers to support revision and home learning will be posted on Google Classroom prior to assessments	See key skills demonstrated

Curriculum Assessment Map   Year: 8   Subject: Mathematics

	2. Standard Form	[Standard Form - Two Clips MW](#) [Standard Form Operations Mathsgenie](#)	- Investigate positive powers of 10. - Work with numbers greater than 1 in standard form. - Investigate negative powers of 10. - Work with numbers between 0 and 1 in standard form. - Compare and order numbers in standard form. - Mentally calculate with numbers in standard form. - Add and subtract numbers in standard form. - Multiply and divide numbers in standard form. - Use a calculator to work with numbers in standard form. - Understand and use negative indices (higher tier). - Understand and use fractional indices (higher tier).			
	3. Number Sense	[Rounding - Choose Clip MW](#)	- Round numbers to powers of 10, and 1 significant figure. - Round numbers to a given number of decimal places. - Estimate the answer to a calculation.			

		[Estimating Multiply and Divide MW](#) [Estimating Mathsgenie](#) [Money Choose Clip MW](#) [Units- Length, Mass, Capacity MW](#) [Units - Time](#)	● Understand and use error interval notation (higher tier). ● Calculate using the order of operations. ● Calculate with money. ● Convert metric measures of length. ● Convert metric units of weight and capacity. ● Convert metric units of area (higher tier). ● Convert metric units of volume (higher tier). ● Solve problems involving time and the calendar.		
5	1. Angles in Parallel Lines and Polygons	[Angle Facts MW](#) [Angles and Parallel Lines MW](#) [Angle Sum of Polygons MW](#)	● ● Understand and use basic angle rules and notation. ● Investigate angles between parallel lines and the transversal. ● Identify and calculate with alternate and corresponding angles. ● Identify and calculate with co-interior, alternate and corresponding angles. ● Solve complex problems with parallel line angles. ● Constructions triangles and special quadrilaterals. ● Investigate the properties of special quadrilaterals. ● Identify and calculate with sides and angles in special quadrilaterals.	One short assessment, with a total of 20 marks, in class. This can be through a formal test, homework or online assessment. Please note, these assessments are created to the teachers' discretion and will therefore vary from class to class.	See key skills demonstrated

		[Construction-Bisecting an angle MW](#)	- Understand and use the sum of exterior angles of any polygon. - Calculate and use the sum of the interior angles in any polygon. - Calculate missing interior angles in regular polygons. - Prove simple geometric facts (higher tier). - Construct an angle bisector (higher tier). - Construct a perpendicular bisector of a line segment. (higher tier).			
	2. Area or Trapezia and Circles	[Area - Choose Clip MW](#) [Circles - Choose Clip MW](#)	- Calculate the area of triangles, rectangles and parallelograms. (recap). - Calculate the area of a trapezium. - Calculate the perimeter and area of compound shapes. - Investigate the area of a circle. - Calculate the area of a circle and parts of a circle without a calculator. - Calculate the area of a circle and parts of a circle with a calculator. - Calculate the perimeter and area of compound shapes.			

Curriculum Assessment Map   Year: 8   Subject: Mathematics

6	1. Symmetry and Reflection	Line Symmetry MW Reflection Choose Clip MW	● Recognise line symmetry. ● Reflect a shape in a horizontal or vertical line. ● Reflect a shape in a diagonal line.		One 45 minute assessment, with a total of 40 marks, at the end of half term six. Knowledge Organisers to support revision and home learning will be posted on Google Classroom prior to assessments	See key skills demonstrated
	2. Data Handling Cycle	Pictograms Choose Clip MW Bar Charts Choose Clip MW Pie Charts MW	● Set up a statistical enquiry. ● Design and criticise questionnaires. ● Draw and interpret pictograms, bar charts and vertical line charts (recap). ● Draw and interpret multiple bar charts. ● Draw and interpret pie charts (recap). ● Draw and interpret line graphs. ● Choose the most appropriate diagram for a given set of data. ● Represent and interpret grouped quantitative data. ● Find and interpret the range. ● Compare distributions using charts. ● Identify misleading graphs.			

	3. Measures of Location	Mean Median and Mode Choose Clip MW Averages from Tables MW	• Understand and use the mean, median and mode. • Choose the most appropriate average. • Find the mean from an ungrouped frequency table. (higher tier) • Find the mean from a grouped frequency table. (higher tier). • Identify outliers. • Compare distributions using averages and the range.			
	4. Sequences	nth term MW	• Generate sequences given a rule in words. • Generate sequences given a simple algebraic rule. • Generate sequences given a complex algebraic rule. • Find the rule for the nth term of a linear sequence.			

Curriculum Assessment Map   Year: 9   Subject: Mathematics

Year 9	Intent		Implementation		Impact	
Autumn	Taught curriculum (teacher Led)	Learned curriculum (student Led)	Key skills demonstrated	Suggested wider activities including extra-curricular opportunities	Summative assessment Title/type	Assessment criteria
1	1. Standard Form	[Standard Form - Oak National Academy](#) [Standard Form - Maths Genie](#)	• Investigate positive powers of 10. Work with numbers greater than 1 in standard form. Investigate negative powers of 10. • Work with numbers between 0 and 1 in standard form. • Compare and order numbers in standard form. • Mentally calculate with numbers in standard form. • Add, subtract , multiply and divide numbers in standard form. • Use a calculator to work with numbers in standard form. • Understand and use fractional and negative indices. (Higher tier).	STEM Club	One short assessment, with a total of 20 marks, in class. This can be through a formal test, homework or online assessment. Please note, these assessments are created to the teachers' discretion and will therefore vary from class to class.	See key skills demonstrated
	2. Angles, Geometric Reasoning and Deduction	[Angles in Parallel Lines - Oak National Academy](#) [Loci and Construction -](#)	• Understand and use basic angles rules and notation • Investigate angles between parallel lines and the transversal • Identify and calculate with alternate, corresponding and co-interior angles • Solve complex problems			

| | | [Maths Genie](#) | with parallel line angles Constructions: triangles and special quadrilaterals Investigate the properties of special quadrilaterals Identify and calculate with sides and angles in special quadrilaterals Understand and use the properties of diagonals and quadrilaterals Understand, use and calculate the sum of interior and exterior angles in any polygon Calculate missing interior angles in regular polygons Prove simple geometric facts (Higher tier) Construct an angle bisector (Higher tier) Construct a perpendicular bisector of a line segment | | | |
| | 3. Straight Line Graphs | [Straight Line Graphs - Oak National Academy](#)

[Drawing Linear Graphs - Maths Genie](#)

[Gradient of a Line - Maths Genie](#) | Lines parallel to the axes, y=x and y=-x Using tables of values Compare gradients and intercepts Understand and use y = mx + c Write and equation in the form y = mx + c (Higher tier) Find the equation of a line from a graph Interpret gradient and intercepts of real life graphs Model real life graphs involving inverse | | | |

		[Equation of a Line - Maths Genie](#)	proportion (Higher tier) ● Explore perpendicular lines (Higher tier)		
	4. Forming and Solving Equations	[Forming and Solving Equations - Oak National Academy](#) [Forming and Solving Equations - Maths Genie](#) [Solving One-Step Equations - Maths Genie](#) [Solving Two-Step Equations - Maths Genie](#)	● Solve one and two-step equations and inequalities including those with brackets ● Inequalities with negative numbers ● Solve equations and inequalities with unknowns on both sides ● Solving equations and inequalities in context ● Substituting into formulae and equations ● Rearranging formula (one-step and two-step) ● Rearrange complex formulae including brackets and squares (Higher tier)		
2	1. Area and 3D Shapes	[Area of 2D Shapes - Oak National Academy](#) [Volume and Surface Area of Prisms - Oak National Academy](#)	● Calculate the area of rectangles, triangles and parallelograms, trapeziums and compound shapes ● Calculate the perimeter of compound shapes ● Calculate the area of a circle and parts of a circle	One 45 minute assessment, with a total of 40 marks, at the end of half term two. Knowledge Organisers to support revision and	See key skills demonstrated

Curriculum Assessment Map **Year: 9** **Subject: Mathematics**

			- Recognise 2D and 3D shapes and prisms - Recognise and sketch nets of 2D shapes - Draw and identify plans and elevations - Find the surface area of cubes, cuboids, triangular prisms and cylinders - Find the volume of cubes, cuboids, prisms and cylinders - Find the volume of cones, spheres and pyramids (higher only)		home learning will be posted on Google Classroom prior to assessments.	
	2. Construction, Congruence and Measures of Location	Loci and Construction - Maths Genie Constructions - Oak National Academy	- Draw and measure angles - Construct and Interpret scale drawings - Locus of distance from a point or straight line - Construct perpendicular lines - Construct an angle bisector - Construct triangles - Identify and explore congruent triangles		
3	1. Numbers and Number Sense	Mental Arithmetic MW Fractions Choose Clip MW	- Know and use mental addition, subtraction, multiplication and division strategies for integers - Know and use mental arithmetic strategies for fractions and decimals - Use factors to simplify calculations - Use estimation as a		One short assessment, with a total of 20 marks, in class. This can be through a formal test, homework or online assessment. Please note, these assessments are	See key skills demonstrated

			method for checking mental calculations ● Use known number and algebraic facts to derive other facts ● Know when to use a mental strategy, formal written method or a calculator ● Integers, real and rational numbers ● Understand and use Surds (Higher tier) ● Work with directed numbers ● Solve problems with integers and decimals ● HCF and LCM ● Adding, subtracting, multiplying and dividing fractions ● Solve problems with fractions ● Numbers in standard form		created to the teachers' discretion and will therefore vary from class to class.	
	2. Using Percentages		● Use the equivalence of fractions, decimals and percentages ● Calculate percentage increase and decrease ● Express a change as a percentage ● Solve 'reverse' percentage problems ● Recognise and solve percentage problems (calculator and non-calculator) ● Solve problems with percentage change (Higher tier)		

	3. Maths and Money		- Solve problems with bills and bank statements - Calculate simple interest - Calculate compound interest - Solve problems with Value Added Tax - Calculate wages and taxes - Solve problems with exchange rates - Solve unit pricing problems		
4	1. Transformations 2. Pythagoras	[Transformations - Oak National Academy](#) [Transformations - Maths Genie](#) [Pythagoras - Oak National Academy](#) [Pythagoras - Maths Genie](#)	- Recognise lines of symmetry - Reflect shapes using vertical, horizontal and diagonal lines - Identify and compare rotational symmetry - Rotate a shape - Translate shapes by a given vector - Find the result of a series of transformations (Higher) - Identify and calculate the hypotenuse of a right angled triangle - Calculate missing sides of right angled triangles - Use Pythagoras Theorem on coordinate axes - Use Pythagoras Theorem in 3D problems (Higher)	**<mark>Year 9 Mock Exams</mark>** to take place during Half Term 4 - more information to follow Knowledge Organisers to support revision and home learning will be posted on Google Classroom prior to assessments	See key skills demonstrated
5	1. Proportion - Enlargement and Similarity		- Recognise enlargement and similarity - Enlarge a shape by a positive integer scale	One short assessment, with a total of 20 marks, in class. This can be	See key skills demonstrated

			factor from a point ● Enlarge a shape by a positive fractional scale factor ● Enlarge a shape by a negative scale factor (Higher tier) ● Work out missing sides and angles in a pair of given similar shapes ● Solve problems with similar triangles (Higher tier) ● Explore ratios in right-angles triangles (Higher tier)		through a formal test, homework or online assessment. Please note, these assessments are created to the teachers' discretion and will therefore vary from class to class.
	2. Proportion - Solving Ratio and Proportion Problems		● Solve problems with direct proportion ● Direct proportion and conversion graphs ● Solve problems with inverse proportion ● Graphs of inverse relationships (Higher tier) ● Solve ratio problems given the whole or a part ● Solve 'best buy' problems ● Solve problems with ratio and algebra (Higher tier)		
	3. Proportion - Rates		● Solve speed, distance and time problems with and without a calculator ● Use distance-time graphs ● Solve problems with density, mass and volume ● Solve flow problems and their graphs		

			- Rates of change and their units - Convert compound units (Higher tier)			
6	1. Probability 2. Algebraic Representation		- Single event probability - Relative frequency - Expected outcomes - Independent events - Use tree diagrams (Higher tier) - Use tree diagrams to solve 'without replacement' problems (Higher tier) - Use diagrams to work out probabilities - Draw and interpret quadratic graphs - Interpret other graphs, including reciprocal and piece-wise - Investigate graphs of simultaneous equations (Higher tier) - Represent inequalities		One 45 minute assessment, with a total of 40 marks, at the end of half term six. Knowledge Organisers to support revision and home learning will be posted on Google Classroom prior to assessments	See key skills demonstrated