

Year 7 Scheme of learning 2021-2022 – Term 1

Stretch key learning in italics

Topic	Key learning	MathsWatch clip no	☹	😊	☺
Types of number	Identify factors and multiples.	28			
	Identify prime numbers less than 100	28			
	Identify square, cube and triangle numbers and square and cube roots.	29, 81			
	Recognise and use the lowest common multiples and highest common factors.	79, 80			
	<i>Write numbers as products of their prime factors.</i>	78			
Negative numbers	Order negative numbers and use the symbols =, ≠, <, >, ≤, ≥ appropriately	2, 5			
	Solve problems involving negative numbers.	23			
	Add, subtract, multiply and divide with negative numbers.	68a, 68b			
Approximation	Round numbers and measures to any number of decimal places	31, 32			
	Round numbers and measures to any number of significant figures	90			
	Estimate calculations by rounding to one significant figure	91			
	<i>Identify error limits using inequality notation $a \leq x < b$</i>	155			
Assessment 1 of topics taught to date					
October half term					
Decimals & percentages	Add, subtract, multiply and divide with decimals	3, 17, 18, 66, 67			
	Change between decimals and percentages	84, 85			
	Find a percentage of an amount (with and without a calculator)	86, 87			
	Increase and decrease an amount by a percentage (with and without a calc)	108			
	<i>Use multipliers to increase and decrease by a percentage</i>	108			
Time	Read the time from both analogue and digital clocks				
	Convert between 12 hour and 24 hour clock.				
	Calculate duration of events in minutes and hours				
	Solve problems involving time	6a			
	<i>Plan a journey using timetables</i>	6b			
Measures	Covert between metric units of length, weight and capacity	112			
	Convert between units of time and money	22a, 22b			
	Measure lengths accurately and read various scales	4			
Perimeter	Find the perimeter of a shape by counting or measuring.	52			
	Find the perimeter of a shape where the lengths of edges are given.	52			
	Find the perimeter of a shape where there are some unknown sides	52			
	<i>Find a length when given a perimeter</i>				
Christmas holidays					

Year 7 Scheme of learning 2021-2022

Term 2

Stretch key learning in italics

Topic	Key learning	MathsWatch clip no	⊗	☹	☺
Algebraic thinking	BIDMAS	75			
	Form expressions from situations described in words or pictures, including area and perimeter of simple shapes	137			
	Simplify expressions by collecting like terms	33			
	Multiply and divide algebraic terms	34, 35			
	Substitute numerical values into, problems given in words, formulae and expressions	95			
	Multiply by single bracket	93			
	<i>Factorise an expression</i>	94			
	Expand and simplify single brackets	134a			
Assessment 2 of all topics taught to date					
Solving equations	Solve one step equations	100			
	Solve simple worded equations	137			
	Solve multi step equations including those with brackets	135a, 135b			
	Construct and solve linear equations	137			
February half term					
Fractions	Represent fractions using bar models and number lines	24			
	Calculate with fractions including add, subtract, multiply and divide	71a, 71b, 73, 74			
	Recognise and find equivalent fractions including simplifying fractions	25, 26			
	Compare and order fractions using the symbols =, ≠, <, ≤, >, ≥	70			
	Convert between improper fractions and mixed numbers	24			
	Calculate with mixed numbers	71a, 71b, 73, 74			
	Convert between fractions and decimals	84, 85			
	Calculate fractions of amounts	72			
	<i>Calculate reverse fractions of amounts</i>	72			
Angles	Estimate and measure angles	13, 46a, 46b			
	Draw acute, obtuse and reflex angles to the nearest degree	46a, 46b			
	Use the properties of angles at a point, angles at a point on a straight line, vertically opposite angles	45			
	Find missing angles in triangles and quadrilaterals	121, 122, 123			
	Find missing angles in parallel lines using corresponding angles, alternate angles and co-interior angles	120			
	<i>Give reasons for all answers that have used angle properties</i>	120			
	<i>Solve angle problems involving algebra</i>	120			
Easter holidays					

Year 7 Scheme of learning 2021 - 2022 - Term 3

Topic	Key learning	MathsWatch Clip No	☹	😊	☺
Ratio and proportion	Recognise equivalent ratios	38			
	Write ratios to their simplest form	38			
	Solve problems that involve dividing in a given ratio in two or more parts	106			
	Compare and switch between ratios and fractions	107			
	Solve problems involving direct proportion, eg. could include recipe problems, best buy problems and exchange rates	39, 41, 105, 107			
Area of Polygons	Use the corrects units for area	112			
	Find the area of squares, rectangles and parallelograms	53, 55			
	Find the area of triangles	54			
	Find the area of trapeziums	56			
	<i>Find the area of compound shapes involving all the above</i>	53, 54, 55, 56			
	<i>Convert between cm² and m²</i>	112			
Assessment 3 on topics taught to date					
May half term					
Percentages and fractions	Change between fractions and percentages	84, 85			
	Write fractions in their simplest forms	26			
	Calculate fractions of amounts	72			
	Increase and decrease by a percentage or a fraction	108			
	Write one quantity as a fraction of another				
	Write a quantity as a percentage of another	88, 89			
	Calculate with proper fractions, improper fractions and mixed numbers (addition, subtraction, multiplication and division)	71a, 71b, 73, 74			
	Compare two quantities using percentages	86, 87			
	<i>Use the formula for percentage change; percentage change = actual change ÷ original amount</i>	109			
	<i>Calculate reverse percentage problems and reverse fraction problems</i>	110			
	<i>Add, Subtract, Multiply and divide basic algebraic fractions</i>	210a, 210b			
Shape	Recognise and name polygons	10			
	Identify parallel and perpendicular lines in shapes	9			
	Identify and understand reflectional and rotational symmetry	11			
	Identify 3D shapes	43			
	Describe properties of 3D shapes	43			
	Understand the properties of a prism	43			
	Identify simple nets	44			
Functional week					

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