

## Mathematics – Year 8

	Topic	Mathswatch Clip	Resources
<b>Term 1 &amp; 2</b>	8.6 Numbers and the number system Multiples, factors, primes	N10, N11, N30	<a href="https://www.piximaths.co.uk/types-of-numbers">https://www.piximaths.co.uk/types-of-numbers</a>
	8.7 Counting and comparing Negative numbers Multiply and divide by 10, 100 and 1000	N18 N17a	<a href="https://www.piximaths.co.uk/negative-numbers">https://www.piximaths.co.uk/negative-numbers</a> <a href="https://www.piximaths.co.uk/four-operations">https://www.piximaths.co.uk/four-operations</a>
	8.8 Calculating Addition & subtraction Multiplication & division	N13a and b N15a and b	<a href="https://www.piximaths.co.uk/four-operations">https://www.piximaths.co.uk/four-operations</a> <a href="https://www.piximaths.co.uk/four-operations">https://www.piximaths.co.uk/four-operations</a>
	8.9 Exploring and calculating fractions, decimals and percentages Equivalent fraction and simplifying fractions Convert fractions, decimals and percentages Convert fractions from improper to mixed numbers Find fraction of an amount	N23 N32 N35 N33 N24b N36 N37a	<a href="https://www.piximaths.co.uk/fdp-equivalence">https://www.piximaths.co.uk/fdp-equivalence</a> <a href="https://www.piximaths.co.uk/fdp-equivalence">https://www.piximaths.co.uk/fdp-equivalence</a> <a href="https://www.piximaths.co.uk/fractions">https://www.piximaths.co.uk/fractions</a> <a href="https://www.piximaths.co.uk/fractions">https://www.piximaths.co.uk/fractions</a> <a href="https://www.piximaths.co.uk/percentages">https://www.piximaths.co.uk/percentages</a> <a href="https://www.piximaths.co.uk/fractions">https://www.piximaths.co.uk/fractions</a> <a href="https://www.piximaths.co.uk/fractions">https://www.piximaths.co.uk/fractions</a>

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<p>Find percentage of an amount</p> <p>Add &amp; subtract fractions with common denominator</p> <p>Multiply fractions by whole numbers</p>		
<p>8.10 Checking, approximating and estimating</p> <p>Rounding to nearest 10, 100, 1000, 10 000, 100 000</p> <p>Round decimals</p> <p>Ratio and proportion</p>	<p>N27a</p> <p>N27b</p> <p>R1a and b</p>	<p><a href="https://www.piximaths.co.uk/rounding-and-estimating">https://www.piximaths.co.uk/rounding-and-estimating</a></p> <p><a href="https://www.piximaths.co.uk/rounding-and-estimating">https://www.piximaths.co.uk/rounding-and-estimating</a></p> <p><a href="https://www.piximaths.co.uk/simplifying-ratio">https://www.piximaths.co.uk/simplifying-ratio</a></p> <p><a href="https://www.piximaths.co.uk/dividing-into-a-ratio">https://www.piximaths.co.uk/dividing-into-a-ratio</a></p>
<p>8.11 Investigating properties of shapes</p> <p>3D shapes, symmetry</p>	<p>G12a, b and c</p> <p>G3 and G7</p>	<p><a href="https://www.piximaths.co.uk/types-of-shapes-2D-and-3D">https://www.piximaths.co.uk/types-of-shapes-2D-and-3D</a></p> <p><a href="https://www.piximaths.co.uk/reflection-and-symmetry">https://www.piximaths.co.uk/reflection-and-symmetry</a></p>
<p>8.12 Measuring and calculating space</p> <p>Convert mm, cm, km</p> <p>Perimeter and area</p> <p>Volume of cuboids</p>	<p>R2</p> <p>G8b, G20a</p> <p>G21a</p> <p>G4a</p>	<p><a href="https://www.piximaths.co.uk/time-calculations">https://www.piximaths.co.uk/time-calculations</a></p> <p><a href="https://www.piximaths.co.uk/area-and-perimeter-using-formulae">https://www.piximaths.co.uk/area-and-perimeter-using-formulae</a></p> <p><a href="https://www.piximaths.co.uk/cubes-and-cuboids">https://www.piximaths.co.uk/cubes-and-cuboids</a></p>

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Topic	Mathswatch Clip	Resources
Reflections Translations	G5	<a href="https://www.piximaths.co.uk/reflection-and-symmetry">https://www.piximaths.co.uk/reflection-and-symmetry</a> <a href="https://www.piximaths.co.uk/translations">https://www.piximaths.co.uk/translations</a>
8.13 Investigating angles Types of angles Draw and measure angles Reading scales	G10a G10b and c N8	<a href="https://www.piximaths.co.uk/types-of-lines-and-angles">https://www.piximaths.co.uk/types-of-lines-and-angles</a> <a href="https://www.piximaths.co.uk/types-of-lines-and-angles">https://www.piximaths.co.uk/types-of-lines-and-angles</a> <a href="https://www.piximaths.co.uk/reading-and-interpreting-scales">https://www.piximaths.co.uk/reading-and-interpreting-scales</a>
8.14 Exploring time Time Timetables	N7B N21b	<a href="https://www.piximaths.co.uk/time-calculations">https://www.piximaths.co.uk/time-calculations</a> <a href="https://www.piximaths.co.uk/time-calculations">https://www.piximaths.co.uk/time-calculations</a>
8.15 Presentation of data Averages Pie charts Bar charts	S7 S9 S2a and b	<a href="https://www.piximaths.co.uk/averages-mode-median-mean-range">https://www.piximaths.co.uk/averages-mode-median-mean-range</a> <a href="https://www.piximaths.co.uk/bar-charts">https://www.piximaths.co.uk/bar-charts</a>
8.16 Probability Probability events Probability scales	P1, P2 P5	<a href="https://www.piximaths.co.uk/introduction-to-probability">https://www.piximaths.co.uk/introduction-to-probability</a> <a href="https://www.piximaths.co.uk/introduction-to-probability">https://www.piximaths.co.uk/introduction-to-probability</a>

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	8.17 Algebra Coordinates Function machines	A1a N26	<a href="https://www.piximaths.co.uk/coordinates">https://www.piximaths.co.uk/coordinates</a> <a href="https://www.piximaths.co.uk/function-machines">https://www.piximaths.co.uk/function-machines</a>
<b>Term 3 &amp; 4</b>	8.18 Numbers and the number system Multiples, factors and primes Multiply and divide numbers by 10, 100 and 1000 Negative numbers	N10, N11, N30a N17a N18	<a href="https://www.piximaths.co.uk/types-of-numbers">https://www.piximaths.co.uk/types-of-numbers</a> <a href="https://www.piximaths.co.uk/four-operations">https://www.piximaths.co.uk/four-operations</a> <a href="https://www.piximaths.co.uk/directed-(negative)-numbers">https://www.piximaths.co.uk/directed-(negative)-numbers</a>
	8.19 Checking, approximating and estimating Rounding to nearest 10, 100, 1000, 10 000, 100 000 Rounding to decimal places Estimation	N27a N27b N43a and b	<a href="https://www.piximaths.co.uk/rounding-and-estimating">https://www.piximaths.co.uk/rounding-and-estimating</a> <a href="https://www.piximaths.co.uk/rounding-and-estimating">https://www.piximaths.co.uk/rounding-and-estimating</a> <a href="https://www.piximaths.co.uk/rounding-and-estimating">https://www.piximaths.co.uk/rounding-and-estimating</a>
	8.20 Calculating: Addition and subtraction Multiplication and division	N13a and b N15a and b N29a	<a href="https://www.piximaths.co.uk/four-operations">https://www.piximaths.co.uk/four-operations</a> <a href="https://www.piximaths.co.uk/four-operations">https://www.piximaths.co.uk/four-operations</a> <a href="https://www.piximaths.co.uk/four-operations">https://www.piximaths.co.uk/four-operations</a>

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Topic	Mathswatch Clip	Resources
Addition & subtraction Multiplication & division Long division Order of operations	N20	<a href="https://www.piximaths.co.uk/order-of-operations">https://www.piximaths.co.uk/order-of-operations</a>
8.21 Exploring and calculating fractions, decimals and percentages Equivalent fraction Adding and subtracting fractions Multiply fractions Divide fractions Percentage of amounts	N23a and b N36 N42a N42b N24b	<a href="https://www.piximaths.co.uk/fdp-equivalencies">https://www.piximaths.co.uk/fdp-equivalencies</a> <a href="https://www.piximaths.co.uk/fractions">https://www.piximaths.co.uk/fractions</a> <a href="https://www.piximaths.co.uk/fractions">https://www.piximaths.co.uk/fractions</a> <a href="https://www.piximaths.co.uk/fractions">https://www.piximaths.co.uk/fractions</a> <a href="https://www.piximaths.co.uk/percentages">https://www.piximaths.co.uk/percentages</a>
8.22 Algebraic proficiency: using formulae Use simple formulae Convert between miles and kilometres	A3 R2	<a href="https://www.piximaths.co.uk/worded-formulae">https://www.piximaths.co.uk/worded-formulae</a> <a href="https://www.piximaths.co.uk/metric-unit-conversions">https://www.piximaths.co.uk/metric-unit-conversions</a>
8.23 Solving equations and inequalities Linear equations	A17	<a href="https://www.piximaths.co.uk/solving-linear-equations">https://www.piximaths.co.uk/solving-linear-equations</a>

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Topic	Mathswatch Clip	Resources
8.24 Investigating properties of shapes 3D shapes Angles in polygons Parts of circles	G12a, b and c G19 G2	<a href="https://www.piximaths.co.uk/types-of-shapes-2D-and-3D">https://www.piximaths.co.uk/types-of-shapes-2D-and-3D</a> <a href="https://www.piximaths.co.uk/interior-and-exterior-angles">https://www.piximaths.co.uk/interior-and-exterior-angles</a> <a href="https://www.piximaths.co.uk/properties-of-circles">https://www.piximaths.co.uk/properties-of-circles</a>
8.25 Investigating angles Draw and measure angles Vertically opposite angles	G10a, b and c G18	<a href="https://www.piximaths.co.uk/types-of-lines-and-angles">https://www.piximaths.co.uk/types-of-lines-and-angles</a> <a href="https://www.piximaths.co.uk/angles-in-parallel-line">https://www.piximaths.co.uk/angles-in-parallel-line</a>
8.26 Proportional reasoning Ratio and proportion	R1a and b R5a and b	<a href="https://www.piximaths.co.uk/simplifying-ratio">https://www.piximaths.co.uk/simplifying-ratio</a> <a href="https://www.piximaths.co.uk/dividing-into-a-ratio">https://www.piximaths.co.uk/dividing-into-a-ratio</a>
8.27 Sequences/patterns Linear sequences	A11a, b and c	<a href="https://www.piximaths.co.uk/nth-term,-first-term,-sequences">https://www.piximaths.co.uk/nth-term,-first-term,-sequences</a>
8.28 Measuring and calculating space Convert metric units Area of parallelograms Area of triangles	N7a, b and c G20b G20c	<a href="https://www.piximaths.co.uk/metric-unit-conversions">https://www.piximaths.co.uk/metric-unit-conversions</a> <a href="https://www.piximaths.co.uk/area-and-perimeter-using-formulae">https://www.piximaths.co.uk/area-and-perimeter-using-formulae</a> <a href="https://www.piximaths.co.uk/area-and-perimeter-using-formulae">https://www.piximaths.co.uk/area-and-perimeter-using-formulae</a>

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	Topic	Mathswatch Clip	Resources
	8.29 Mathematical movement Coordinates Translations Reflections	A1a and b G5 G4a and b	<a href="https://www.piximaths.co.uk/coordinates">https://www.piximaths.co.uk/coordinates</a> <a href="https://www.piximaths.co.uk/translations">https://www.piximaths.co.uk/translations</a> <a href="https://www.piximaths.co.uk/reflections-and-symmetry">https://www.piximaths.co.uk/reflections-and-symmetry</a>
	8.30 Presentation and measuring data Bar charts Pie charts Averages	S2a and b S9 S7, S10a and b	<a href="https://www.piximaths.co.uk/bar-charts">https://www.piximaths.co.uk/bar-charts</a> <a href="https://www.piximaths.co.uk/pie-charts">https://www.piximaths.co.uk/pie-charts</a> <a href="https://www.piximaths.co.uk/averages">https://www.piximaths.co.uk/averages</a>
<b>Term 5 &amp; 6</b>	8.31 Numbers and the number system Multiples, factors and primes Highest common factor Lowest common multiple Roots and powers	N10, N11, N30 N31a N31b N25	<a href="https://www.piximaths.co.uk/types-of-numbers">https://www.piximaths.co.uk/types-of-numbers</a> <a href="https://www.piximaths.co.uk/products-of-prime-factors-hcf-and-l">https://www.piximaths.co.uk/products-of-prime-factors-hcf-and-l</a> <a href="https://www.piximaths.co.uk/products-of-prime-factors-hcf-and-l">https://www.piximaths.co.uk/products-of-prime-factors-hcf-and-l</a> <a href="https://www.piximaths.co.uk/types-of-numbers">https://www.piximaths.co.uk/types-of-numbers</a>
	8.32 Calculating: Long multiplication and long division	N28a and b N29a and b N20	<a href="https://www.piximaths.co.uk/four-operations">https://www.piximaths.co.uk/four-operations</a> <a href="https://www.piximaths.co.uk/four-operations">https://www.piximaths.co.uk/four-operations</a>

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Topic	Mathswatch Clip	Resources
Order of operations		<a href="https://www.piximaths.co.uk/order-of-operations">https://www.piximaths.co.uk/order-of-operations</a>
8.33 Checking, approximating and estimating significant figures Estimations	N38 N43a and b	<a href="https://www.piximaths.co.uk/rounding-and-estimating">https://www.piximaths.co.uk/rounding-and-estimating</a> <a href="https://www.piximaths.co.uk/rounding-and-estimating">https://www.piximaths.co.uk/rounding-and-estimating</a>
8.34 Counting and comparing Negative numbers	N38 N43a and b	<a href="https://www.piximaths.co.uk/rounding-and-estimating">https://www.piximaths.co.uk/rounding-and-estimating</a> <a href="https://www.piximaths.co.uk/rounding-and-estimating">https://www.piximaths.co.uk/rounding-and-estimating</a>
8.34 Counting and comparing Negative numbers	N18	<a href="https://www.piximaths.co.uk/directed-(negative)-numbers">https://www.piximaths.co.uk/directed-(negative)-numbers</a>
8.35 Exploring and calculating fractions, decimals and percentages Adding and subtracting fractions Multiply and divide Percentage increase/decrease	N36 N42a and b R9a and b	<a href="https://www.piximaths.co.uk/fractions">https://www.piximaths.co.uk/fractions</a> <a href="https://www.piximaths.co.uk/fractions">https://www.piximaths.co.uk/fractions</a> <a href="https://www.piximaths.co.uk/percentages">https://www.piximaths.co.uk/percentages</a>

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Topic	Mathswatch Clip	Resources
8.36 Algebraic proficiency: using formulae	A8 and A16 A6	<a href="https://www.piximaths.co.uk/expanding-brackets">https://www.piximaths.co.uk/expanding-brackets</a>
Expanding brackets – single and double	N26	<a href="https://www.piximaths.co.uk/simplifying-and-substituting">https://www.piximaths.co.uk/simplifying-and-substituting</a>
Collecting like terms	A10	<a href="https://www.piximaths.co.uk/function-machines">https://www.piximaths.co.uk/function-machines</a>
Function machines		<a href="https://www.piximaths.co.uk/simplifying-and-substituting">https://www.piximaths.co.uk/simplifying-and-substituting</a>
Substitution		
8.37 Solving equations and inequalities	A12	<a href="https://www.piximaths.co.uk/solving-linear-equations">https://www.piximaths.co.uk/solving-linear-equations</a>
Solve linear equations		
8.38 Investigating properties of shapes	G14 and G16 G30	<a href="https://www.piximaths.co.uk/types-of-shapes-2d-3d">https://www.piximaths.co.uk/types-of-shapes-2d-3d</a>
Properties of shapes		<a href="https://www.piximaths.co.uk/pythagoras'-Theorem">https://www.piximaths.co.uk/pythagoras'-Theorem</a>
Pythagoras Theorem		
8.39 Investigating angles	G10b and c	<a href="https://www.piximaths.co.uk/types-of-lines-and-angles">https://www.piximaths.co.uk/types-of-lines-and-angles</a>
Draw and measure angles	G18	<a href="https://www.piximaths.co.uk/angles-in-parrallel-lines">https://www.piximaths.co.uk/angles-in-parrallel-lines</a>
Vertically opposite angles		
8.40 Proportional reasoning	R1a and b	<a href="https://www.piximaths.co.uk/simplifying-ratio">https://www.piximaths.co.uk/simplifying-ratio</a>
Ratio and proportion	R5a and b	<a href="https://www.piximaths.co.uk/dividing-into-a-ratio">https://www.piximaths.co.uk/dividing-into-a-ratio</a>

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Topic	Mathswatch Clip	Resources
8.41 Sequences/patterns Generate terms of a sequence from a term-to-term rule	A11a, b and c	<a href="https://www.piximaths.co.uk/nth-term">https://www.piximaths.co.uk/nth-term</a>
8.42 Measuring and calculating space Convert units of metric measures, Perimeters and area Surface area and volume of cuboids	R2 G8b and G20a G21a and b	<a href="https://www.piximaths.co.uk/metric-unit-conversions">https://www.piximaths.co.uk/metric-unit-conversions</a> <a href="https://www.piximaths.co.uk/area-and-perimeter-using-formulae">https://www.piximaths.co.uk/area-and-perimeter-using-formulae</a> <a href="https://www.piximaths.co.uk/cubes-and-cuboids">https://www.piximaths.co.uk/cubes-and-cuboids</a>
8.43 Mathematical movement Coordinates Plotting straight lines Translation Reflection Rotations	A1b A14a and b G5 G4a G6	<a href="https://www.piximaths.co.uk/coordinates">https://www.piximaths.co.uk/coordinates</a> <a href="https://www.piximaths.co.uk/linear-graphs">https://www.piximaths.co.uk/linear-graphs</a> <a href="https://www.piximaths.co.uk/translations">https://www.piximaths.co.uk/translations</a> <a href="https://www.piximaths.co.uk/reflections-and-symmetry">https://www.piximaths.co.uk/reflections-and-symmetry</a> <a href="https://www.piximaths.co.uk/rotations-and-symmetry">https://www.piximaths.co.uk/rotations-and-symmetry</a>
8.44 Presentation and measuring data Bar charts	S2a and b S9 S3	<a href="https://www.piximaths.co.uk/bar-charts">https://www.piximaths.co.uk/bar-charts</a> <a href="https://www.piximaths.co.uk/pie-charts">https://www.piximaths.co.uk/pie-charts</a> <a href="https://www.piximaths.co.uk/tally-charts">https://www.piximaths.co.uk/tally-charts</a>

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Topic	Mathswatch Clip	Resources
Pie charts	S1a and b	<a href="https://www.piximaths.co.uk/pictograms">https://www.piximaths.co.uk/pictograms</a>
Frequency tables	S7	<a href="https://www.piximaths.co.uk/averages-mode-median-mean-range">https://www.piximaths.co.uk/averages-mode-median-mean-range</a>
Pictograms		
Averages, mean, mode, median		