



Maths Y8 Curriculum Overview





Key Stage 3 Curriculum Journey: Mathematics Year 8

	Week 1								Week 39
	Number	FDP	1-Proportional Reasoning	2- Representations	3- Algebraic Techniques	4- Developing Number	5-Developing Geometry	6- Reasoning with data	
Key content (know thatKnow how)	Calculations Types of number Negative numbers Decimals Types of number and indices Decimals and rounding Powers and roots	Compare Fractions Manipulation Calculation with fractions Percentages Compare fractions Calculations with fractions Percentages Calculations with fractions percentages	Ratio and scale. Multiplicative change. Multiplying and dividing fractions	Working in the Cartesian plane. Representing data. Tables and probability	Brackets, equations and inequalities. Sequences. Indices.	Fractions and Percentages. Standard index form. Number sense.	Angles in parallel lines and polygons. Area of Trapezia and circles. Lines of symmetryand reflection.	The data handling cycle. Measure of location.	
Prior Knowledge	Calculate mentally Order numbers Carry out written calculations effectively Find factors and multiples Add, subtract, multiply and divide integers using a suitable written method. Multiply and divide integers by	Write percentages as a fraction with a denominator of 100 Write a percentage as a decimal Describe simple parts of a shape using fractions. Compare simple fractions Change an improper fraction to a mixed number.	-Area -Equations -Converting improper fractions and mixed numbers	-Calculation with directed number -Venn diagrams and set notation.	-Use of directed number. -Solve equations set in the context of earlier contexts – shapes, angles, probability, ratio.	-Fraction, decimal and percentage equivalence. -Formal methods for calculation, for integers and fractions.	-Forming and solving equations. -Properties of shapes. -Equations of straight lines.	-Finding the range.	



multiples of 10,	Identify equivalent						
100, 1000.	fractions.						
Use estimation to	Simplify fractions						
check an answer to	Work with						
a multiplication	equivalent						
Divide numbers	fractions and						
that give decimal	decimals.						
answers							
Use inverse	Add and subtract						
operations to	fractions with the						
check answers.	same						
Use the priority of	denominator.						
operations	Calculate simple						
including powers.	fractions of						
Know and use the	quantities.						
priority of	Write one quantity						
operations,	as a fraction of						
including brackets.	another.						
Recognise prime	Convert simple						
numbers.	fractions to						
	percentages						
Recognise square	Calculate simple						
numbers.	percentages						
	(multiples of 10						
Order positive and	and 5)						
negative numbers.							
Calculate with	Order fractions by						
negative numbers.	converting them to						
	decimals or						
Order decimals.	equivalent						
Multiply and divide	fractions.						
decimals by							
multiples of 10,	Add and subtract						
100 and 1000.	fractions with						
Add, subtract,	different						
multiply and divide	denominators.						
decimals	Multiply fractions.						
Calculate with	Calculate fractions						
money.	of quantities.						
Kound decimais	Convert between						
	Convert between						
	iractions,						
	decimais, and						
	percentages.	1	1	1	1	1	



		Calculate percentages of amounts. Express one quantity as a percentage of another.							
	Developin	g fluency, rea	soning mather	natically and s	olve problems	s features acro	ss all units. D	ocument numl	oer 4-21
KS3 National Curriculum Links	22 - 30 34 - 37	22 25 – 27, 30- 34 56 59 60 61	Use a calculator and other technologies to calculate results accurately and then interpret them appropriately. use scale factors, scale diagrams and maps. Use ratio notation, including reduction to simplest form. Divide a given quantity into 2 parts in a given part:part or part:whole ratio; express thedivision of a quantity into 2 parts as a ratio.	Use a calculator and other technologies tocalculate results accurately and then interpret them appropriatel y Generate theoretical sample spaces for singleand combined events with equally likely, mutually exclusive outcomes and use theseto calculate theoretical probabilities.	Substitute values in expressions, rearrange and simplify expressions, andsolve equations Use language and properties precisely to analyse numbers, algebraic expressions, 2- D and 3-D shapes, probability and statistics Use and interpret algebraic notation, including: ab in place of a × b, 3y in placeof y +	Use integer powers and associated real roots (square, cube and higher), recognise powers of 2, 3, 4, 5 and distinguish between exact representation s of roots and their decimal approximations Interpret and compare numbersin standard form Ax 10n 1 \leq A $<$ 10, where n is a positive or negative integer or OUse standard units of mass	Use a calculator and other technologies to calculate results accurately and then interpret them appropriately Work with coordinates in all 4quadrants Calculate and solve problems involving: perimeters of 2-D shapes (including circles), areas of circles and composite shapes. Understand and use the relationship	Explore what can and cannot be inferred in statistical and probabilistic settings, and begin to express their arguments formally Use a calculator and other technologie s to calculate results accurately and then interpret them appropriate ly. Describe, interpret and	



		a ² in place of a ×	length, time,	parallellines	observed	
		a, a ³ in place of	money and	and alternate	distributions of	
		a × a × a; a²b in	other	and	a single	
		place of a ×a ×	measures,	corresponding	variable	
		b, a/b in place	including with	angles.	through:	
		of a ÷ b,	decimal	Derive and use the	appropriate	
		coefficients	quantities	sum of angles in a	graphical	
		written as	Round	triangle and use it	representation	
		fractions rather	numbers and	to deduce the	involving	
		than as	measuresto	angle sum in any	discrete,	
		decimals,	an	polygon, and to	continuous and	
		brackets	appropriate	derive properties	grouped data;	
		Substitute	degree of	of regular	and	
		numerical	accuracy [for	polygons.	appropriate	
		values into	example, to a		measures of	
		formulae	number of		central	
		and	decimal		tendency	
		expression	places or		(mean,mode,	
		s, including	significant		median) and	
		scientific	figures]		spread (range,	
		formulae	Change freely		consideration	
		Simplify and	between related		of outliers).	
		manipulate	standard units [for		Construct and	
		algebraic	example time,		interpret	
		expressions to	length, area,		appropriate	
		maintain	volume/capacity,		tables, charts,	
		equivalence by:	mass.		and diagrams,	
		collecting like			including	
		terms,			frequency	
		multiplying a			tables, bar	
		singleterm over			charts, pie	
		a bracket,			charts, and	
		taking out			pictograms for	
		common			categorical	
		factors.			data, and	
		Use algebraic			vertical line (or	
		methods to solve			bar) charts for	
		linearequations in			ungrouped and	
		1 variable			grouped	
		(including all forms			numerical data.	
		that require			Describe simple	
		rearrangement)			mathematical	
		Recognise			relationships	



					geometric sequences and appreciate other sequences that arise.			between 2 variables (bivariate data) in observational and experimental contexts and illustrate using scatter graphs.	
Assessment s	Assessment 1	Assessment 2	End of block assessments	End of block assessments	End of block assessments	End of block assessments	End of block assessments	End of block assessments	