

Year 6 Maths Overview

The principles of Fluency, Problem Solving and Reasoning will be threaded throughout each unit.

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Autumn	Place Value Previous – Roman numerals to 1000, numbers to 1 million, Round to powers of 10 to 1 million, negative number calculations and differences <ul style="list-style-type: none"> Represent numbers to 10 million Read and write numbers to 10 million Compare and order numbers to 10 million Round numbers within 10 million Calculate involving negative numbers in a range of contexts, forwards and backwards through zero. 		Four Operations Previous – Adding and subtracting numbers to 1,000,000, estimating, solving inverse problems, solving multistep problems, common multiples and factors, prime, square and cube numbers, multiplying and dividing by 10, 100 and 1000 <ul style="list-style-type: none"> Add and subtract whole numbers of varying size Make decisions based on best method to use Multiply a 4 digit number by a 2 digit number Use short division to divide up to 4 digits by 1 and 2 digits Divide numbers using factor links Divide a 3 digit number by a 2 digit number using long division Divide a 4 digit number by a 2 digit number using long division Long division involving remainders, show as remainder and fraction Long division rounding remainders (context) Common factors, representing in different ways Common multiples (reasoning) Prime and composite to 100 Relationship between square and cube numbers Order of operations Efficient mental strategies Reason from known facts 				Fractions Previous – Converting between improper fractions and mixed numbers, finding equivalents, adding and subtracting where denominators are multiples, multiplying fractions and mixed numbers <ul style="list-style-type: none"> Simplify fractions using highest common factor Count forwards and backwards in fractions with same denominators Count forwards and backwards with fractions where denominators are multiples Compare and order fractions where denominators are not multiples Compare are order fractions where the numerator is the same Add and subtract fractions within 1 where the denominators are multiples Add and subtract fractions within 1 where the denominators are not multiples Add and subtract mixed numbers with any denominator Solve problems involving adding and subtracting fractions and mixed numbers Multiply fractions by whole numbers Multiply fractions by fractions Divide fractions by whole numbers where numerator is multiple of divisor Divide fractions by whole numbers where no multiples involved Order of operations with fractions Find fractions of amounts and use to solve problems Find the whole from fraction value 				Assessment	Decimals Previous – order and compare decimals to 3DP, round decimals up to 3DP to whole and tenths, add and subtract with decimals, multiply and divide decimals by 10, 100 and 1000 <ul style="list-style-type: none"> Understand the place value of decimals to 3 decimal places Multiply decimals by 10, 100 and 1000 Divide decimals by 10, 100 and 1000 Multiply decimals by whole numbers Divide decimals by whole numbers Use division to solve problems up to 2 decimal places Understand the relationship between decimals and fractions Use place value knowledge to convert a decimal to a fraction Know common fraction to decimal conversions Convert fractions to decimals by making the denominator 10, 100 or 1000 Convert fractions to decimals using division 		Position and Direction Previous – translating and reflecting shapes in the first quadrant <ul style="list-style-type: none"> Read and plot coordinates in the first quadrant. Read and plot coordinates in all 4 quadrants Translate shapes to all 4 quadrants Reflect shapes into all 4 quadrants using the x and y axis
Spring	Percentages Previous – understand percentages out of 100, basic percentage conversions <ul style="list-style-type: none"> Recap understanding of percentages out of 100 Convert fraction to percentages by using equivalent fractions over 100 Know equivalents between fractions decimals and percentages Order FDP by converting Find percentages of amount (50%, 25%, 10% and 1%) Find percentages of amounts (multiples of 10 and 5) Use percentages to find missing amount 		Assessment	Algebra Previous – continuing sequences, finding missing numbers, reasoning about numbers in sequence <ul style="list-style-type: none"> Understand terms ‘input’ and ‘output’. Identify ‘rule’ Work backwards to find input Identify and use two-step rules to find input and output Use letters to form expressions Understand how $+/-/x/\div$ are expressed Substitute to find values Substitute into common formulae Use formulae in contexts Form one-step equations Solve one step equations using 4 operations Solve two step equations Find pairs of values working systematically Find pairs of values involving multiples 		Perimeter, Area and Volume Previous – find perimeter and area of compound and irregular shapes, compare volumes, estimate volume and capacity <ul style="list-style-type: none"> Draw shapes that have the same area (link with factors) Calculate area and perimeter of rectilinear shapes Link to formulae Estimate area of a triangle on a grid by counting Find areas of right angled triangles (link to rectangle) Use formula to calculate area of any triangle Find area of a parallelogram Find volume of cuboid by counting cubes Use formula to find volume of cuboid 		Assessment	Ratio Previous – solve multiplication problems involving scaling <ul style="list-style-type: none"> Understand the language of ratio Make simple comparisons Compare ratios and fractions practically Use ratio notation Calculate ratio using models Enlarge shapes using scale factors Calculate scale factors Solve ratio and proportion problems 		Shape Previous – types of angles, measure with protractor, angles in straight line, angles around a point <ul style="list-style-type: none"> Measure accurately with a protractor Understand link between angles and turns Calculate angles on a straight line and around a point Find vertically opposite angles Understand angles in a triangle are 180° and link to straight line Introduce hatch marks Understand link between equal sides in triangle and equal angles Make links to find missing angles in triangles Understand angles in a quadrilateral add to 360° Use relationships to above to find missing angles Explore interior angles in polygons Draw shapes accurately Draw nets of 3D shapes 			
Summer	Converting Units Previous – convert between metric units and basic imperial, timetables <ul style="list-style-type: none"> Red and recognise all metric measures Convert between metric measures Calculate with metric measures Convert between miles and km Know imperial equivalences 	Statistics Previous – line graphs and two-way tables <ul style="list-style-type: none"> Read and interpret line graphs Draw line graphs Line graph problems Parts of circles Read and interpret pie charts Pie charts with percentages Draw pie charts The mean 	Mock SATs	Revision	SATs	APP Mop Up/Project Work								

