

KS2 Maths Progression Overview

	Year 3	Year 4	Year 5	Year 6
Number: Place Value	• Represent numbers to 100 • Partition numbers to 100 • Number line to 100 • Hundreds • Represent numbers to 1,000 • Partition numbers to 100 (including flexibly) • 10's, 100's and 1's • Find 1, 10 and 100 more or less than a given number • Number line to 1,000 • Estimate on a number line to 1,000 • Compare objects to 1,000 • Compare numbers to 1,000 • Count in 50's	• Represent numbers to 1,000 • Partition numbers to 1,000 • Number line to 1,000 • Thousands • Represent numbers to 10,000 • Partition numbers to 10,000 • Flexible partitioning of numbers to 10,000 • Find 1, 10, 100, 1,000 more or less • Number line to 10,000 • Estimate on a number line to 10,000 • Compare numbers to 10,000 • Order numbers to 10,000 • Roman numerals • Round to the nearest 10 • Round to the nearest 100 • Round to the nearest 1,000 • Round to the nearest 10, 100 or 1,000	• Roman numerals to 1,000 • Numbers to 10,000 • Numbers to 100,000 • Numbers to 1,000,000 • Read and write numbers to 1,000,000 • Powers of 10 • 10/100/1,000/10,000/100,000 more or less • Partition numbers to 1,000,000 • Number line to 1,000,000 • Compare and order numbers to 100,000 • Compare and order numbers to 1,000,000 • Round to the nearest 10, 100 or 1,000 • Round within 100,000 • Round within 1,000,000 Understand negative numbers Count through zero in 1s • Count through zero in multiples • Compare and order negative numbers • Find the difference • •	• Numbers to 1,000,000 • Numbers to 10,000,000 • Read and Write numbers to 10,000,000 • Powers of 10 • Number line to 10,000,000 • Compare and order any integers • Round any integer • Negative numbers •



Number: Addition and Subtraction	• Apply number bonds within 10 • Add and subtract 1s • Add and subtract 10s • Add and subtract 100s • Spot the patterns • Add 1s across 10 • Add 10s across 100 • Subtract 1s across a 10 • SUbtract 10s across a 100 • Make connections • Add 2 numbers (no exchange) • Subtract 2 numbers (no exchange) • Add 2 numbers (across a 10) • Add 2 numbers (across a 100) • Subtract 2 numbers (across a 10) • Subtract 2 numbers (across a 100) • Add 2 and 3 digit numbers • Subtract a 2 digit from a 3 digit number • Complements to 100 • Estimate answers	• Add and subtract 1s, 10s, 100s and 1,000s • Add up to two 4-digit numbers - no exchange • Add two 4-digit numbers - one exchange Add • two 4-digit numbers - more than one exchange • Subtract two 4-digit numbers - no exchange • Subtract two 4-digit numbers - one exchange • Subtract two 4-digit numbers - more than one exchange • Efficient subtraction • Estimate answers • Checking strategies	• Mental strategies • Add whole numbers with more than 4 digits (column method) • Subtract whole numbers with more than 4 digits (column method) • Round to check answers • Inverse operations (Addition and Subtraction) • Compare calculations • Find missing numbers •	• Add and subtract integers • Common Factors • Common Multiples • Rules of divisibility • Primes to 100 • Square and cube numbers • Multiply up to a 4-digit number by a 2-digit number • Solve problems with multiplication • Short division • Division using factors • Introduction to long division • Long division with remainders • Solve multi-step problems • Order of operations • Mental calculations and estimation • Reason from known facts •



Number: Multiplication and division	• Multiplication – equal groups • Use arrays • Multiples of 2 • Multiples of 5 and 10 • Sharing and grouping • Multiply by 3 • Divide by 3 • The 3 times tables • Multiply by 4 • Divide by 4 • The 4 times tables • Multiply by 8 • Divide by 8 • The 8 times tables • The 2, 4 and 8 times tables • Multiples of 10 Related Calculations Reasoning about multiplication • Multiply a 2 digit by a 1 digit number (no exchange) • Multiply a 2 digit number by a 1 digit number (with exchange) • Link multiplication and division • Divide a 2-digit number by a 1 digit number (no exchange) • Divide a 2-digit number by a 1 digit number (Flexible partitioning) • Divide a 2-digit number by a 1 digit number (with remainders) • Scaling • How many ways? • •	• Multiples of 3 • Multiply and divide by 6 • The 6 times tables and division facts • Multiply and divide by 9 • The 9 times tables and division facts • Multiply and divide by 7 • The 7 times tables and division facts • The 11 times tables and division facts • The 12 times tables and division facts • Multiply by 1 and 0 • Divide by 1 and itself • Multiply 3 numbers • Factor pairs Use factor pairs • Multiply by 10 • Multiply by 100 • Divide by 10 • Divide by 100 • Related facts • Informal methods of multiplication • Multiply 2-digits by 1-digit • Multiply 3-digits by 1-digit • Divide 2-digits by 1-digit (no exchange) • Divide 2-digits by 1-digit (with exchange) • Divide 3-digits by 1-digit • Efficient Multiplication • Correspondence problems • • • •	• Multiples • Common Multiples • Factors • Common Factors • Prime Numbers • Square Numbers • Cube Numbers • Multiply by 10, 100 and 1,000 • Divide by 10, 100 and 1,000 • Multiples of 10, 100 and 1,000 • Multiply 4-digits by 1-digit Multiply 2-digits by 2-digits (area model) • Multiply 2-digits by 2-digits • Multiply 3-digits by 2-digits • Multiply 4-digits by 2-digits • Solve problems with multiplication • Short division • Divide 4-digits by 1-digit • Divide with remainders • Efficient division • Solve problems with division • • •	



Number: Fractions	• Understand the denominators of unit fractions • Compare and order unit fractions • Understand the numerators of non-unit fractions • Understand the whole • Compare and order non-unit fractions fractions and scales • fractions on a number line Count in fractions on a number line equivalent fractions on a number line Equivalent fractions as bar models • • • • Add fractions Subtract fractions Partition the whole Unit fractions of a set of objects	• Understand the whole • Count beyond 1 • Partition a mixed number • Number lines with mixed numbers • Compare and order mixed numbers • understand improper fractions • Convert mixed numbers to improper fractions • Convert improper fractions to mixed numbers • Equivalent fractions • Equivalent fraction families • Add 2 or more fractions • Add fractions and mixed numbers • Subtract two fractions • Subtract from whole amounts • Subtract from mixed numbers	• Find fractions equivalent to a unit fraction • Find fractions equivalent to a non-unit • fraction Recognise equivalent fractions • Convert improper fractions to mixed numbers • Convert mixed numbers to improper fractions • Compare fractions less than 1 • Order fractions less than 1 • Compare and order fractions greater than 1 • Add and subtract fractions with the same denominator • Add fractions within 1 • Add fractions with total greater than 1 • Add to a mixed number • Add two mixed numbers • Subtract fractions • Subtract from a mixed number • Subtract from a mixed number - breaking the whole • Subtract two mixed numbers	• Equivalent Fractions and simplifying • Equivalent fractions on a number line • Compare and order (denominator) • Compare and order (numerator) • Add and subtract simple fractions • Add and subtract any two fractions • Add mixed numbers • Subtract mixed numbers • Multi-step problems • • Multiply fractions by integers • multiply fractions by fractions • divide a fraction by an integer • divide any fraction by an integer • Mixed questions with fractions • Fraction of an amount Fraction of an amount - find the whole
	• Non-unit fractions of a set of objects • Reasoning with fractions of an amount		• Multiply a unit fraction by an integer • Multiply a non-unit fraction by an integer • Multiply a mixed number by an integer • Calculate a fraction of a quantity • Fraction of an amount • Find the whole • Use fractions as operators	



Numbers: Decimals		• Tenths as fractions • Tenths as decimals • Tenths on a place value chart • Tenths on a number line • Divide 1-digit by 10 • Divide 2-digits by 10 • Hundredths as fractions • Hundredths as decimals • Hundredths on a place value chart • Divide 1 or 2-digits by 100 • Make a whole with tenths Make a whole with hundredths • Partition decimals • Flexibly partition decimals • Compare decimals • Order decimals • Round to the nearest whole number • Halves and quarters as decimals • •	• Decimals up to 2 d.p. • Equivalent fractions and decimals (tenths) • Equivalent fractions and decimals (hundredths • Equivalent fractions and decimals • Thousandths as decimals • Thousandths in a place value chart • Order and compare decimals (same number of d.p.) • Order and compare any decimals up to 3d.p. • Round to the nearest whole number • Round to 1d.p • Understand percentage • Percentages as fraction • Percentages as decimals • Equivalent F.D.P	• Place value within 1 • Place value - integers and decimals • Round decimals • Add and subtract decimals • Multiply by 10, 100 and 1,000 • Divide by 10, 100 and 1,000 • Multiply decimals by integers • Divide decimals by integers • Multiply and divide decimals in context • Decimal and fraction equivalents Fractions as division • Understand percentages • Fractions to percentages • Equivalent fractions, decimals and percentages • Order fractions, decimals and percentages • Percentage of an amount - one step • Percentage of an amount - multi-step • Percentages - missing values • • •
Number: Percentages				
Algebra				• 1-step function machines • 2-step function machines • Form expressions • Substitution • Formulae • Form equations • • Solve 1-step equations

				• Solve 2-step equations • Find parts of values • Solve problems with two unknowns
Ratio				• Add or multiply • Use ration language • Introduction to the ratio symbol • Ratio and Fractions • Scale Drawing • Use scale factors • Similar shapes • Ratio problems • Proportion problems • Recipes
Statistics	• Interpret pictograms • Draw pictograms • Interpret bar charts • Draw bar charts collect and represent data two-way tables	• Interpret charts • Comparison, sum, difference • Interpret line graphs • Draw line graph	• Draw line graphs • Read and interpret line graphs • Read and interpret tables • Two-way tables • Read and interpret timetables	• Line graphs • Dual bar charts • Read and interpret pie charts • Pie charts with percentages • Draw pie charts • The mean



Geometry: Properties of shape	• Turns and angles • Right angles • Compare angles • Measure and draw accurately • Horizontal and vertical • Parallel and perpendicular • Recognise and describe 2D shapes • Recognise and describe 3-D shapes • Make 3-D shapes •	• Understand angles as turns • Identify angels • Compare and order angles • Triangles • Quadrilaterals • Polygons • Lines of symmetry • Complete a symmetric figure •	• Understand and use degrees • Classify angles • Estimate angles • Measure angles up to 180 • Draw lines and angles accurately • Calculate angles around a point • Calculate angles on a straight line • Lengths and angles in shapes • Regular and irregular polygons •	• Measure and classify angles • Calculate angles • Vertically opposite angles • Angles in a triangle • Angles in a triangle - special cases • Angles in a triangle - missing angles • Angles in quadrilaterals • Angles in polygons • Circles • • Draw shapes accurately • Nets of 3-D shapes
Geometry: Position and Direction		• Describe position using coordinates • Plot coordinates • Draw 2D shapes on a grid • Translate on a grid • Describe movement on a grid	• **Read and plot coordinates** • **Problem solving with coordinates** • **Translation** • **Lines of symmetry** • **Reflection in horizontal and vertical lines**	• The first quadrant • Read and plot points in four quadrants • Solve problems with coordinates • Translations • Reflections
Measurement: Length, Area and Perimeter	• Measure in metres and centimetres • Measure in millimetres measure in centimetres and millimetres • Metres, centimetres and millimetres • Equivalent lengths – m & cm • Equivalent lengths – mm & cm • Compare lengths • Add lengths • Subtract lengths • What is perimeter • Measure perimeter	• What is area? • count squares • Make shapes • Compare areas • Measure in kilometres and metres • Equivalent lengths (kilometres and metres) • Perimeter on a grid • Perimeter of a rectangle • Perimeter of rectilinear shapes • Find missing lengths in rectilinear shapes •	• Perimeter of rectangles • Perimeter of rectilinear shapes • Perimeter of polygons • Area of rectangles • Area of compound shapes • Estimate area	• Shapes – same area • Area and perimeter • Area of a triangle - counting squares • Area of a triangle - angled triangle • Area of any triangle • Area of parallelogram • Volume – counting cubes • Volume of a cuboid •

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	• Calculate perimeter	• Calculate the perimeter of rectilinear shapes • Perimeter of regular polygons • Perimeter of polygons		
Measurement: Mass and Capacity	• Use scales • Measure mass in grams • Measure mass in kilograms and grams • Equivalent masses • Compare mass • Add and subtract mass • Measure capacity and volume in ml • measure capacity and volume in l and ml • Equivalent capacities and volume in l and ml compare capacity and volume Add and subtract capacity and volume		• Cubic centimetres • Compare volume • Estimate volume • Estimate capacity	



Measurement: Converting Unite			• Kilograms and Kilometres • Millimetres and millilitres • Convert units of length • Convert between metric and imperial units • Convert units of time • Calculate with timetables	• Measure metric • Convert metric • Calculate with metric measures • Miles and kilometres • Imperial measures
Measurement: Money	• Pounds and pence • Convert pounds and pence • Add money • Subtract money • Find change	• Write money using decimals • Convert between pounds and pence • Compare amounts of money • Estimate with money • Calculate with money • Solve problems with money		



Measurement: Time	• Roman numerals to 12 • Tell the time to 5 minutes • Read time on a digital clock • Use a.m. and p.m. • Years, months and days • Days and hours • Hours and minutes - use start and end times minutes and seconds units of time •	• Years, months, weeks and days • Hours, minutes and seconds • Convert between analogue and digital • Convert to the 24hr clock • Convert from the 24hr clock •		
	• solve problems with time			