

Year 5 Maths Autumn Term Overview

Mathematical strand:	Number	Number	Number	Number
Topic:	Place Value	Addition and Subtraction	Multiplication & division part 1	Fraction part 1
Big Question:	Why do I need to understand the numbers I am working with?	What is the best way to add and subtract, and how can I check my answers?	How can I use my times tables in different ways?	When is understanding unit fractions useful in real life?
Key knowledge and skills:	The small steps of key knowledge and skills in this unit are: • 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	The small steps of key knowledge and skills in this unit are: • Mental strategies • Add whole numbers with more than four digits • Subtract whole numbers with more than four digits • Round to check answers • Inverse operations (addition and subtraction) • Multi-step addition and subtraction problems • Compare calculations • Find missing numbers	The small steps of key knowledge and skills in this unit are: • 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	The small steps of key knowledge and skills in this unit are: • 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
Key vocabulary:	Nearest 10, 100, 1000, Roman numerals (to 100), Positive numbers, Hundred thousand, Digit, Value, Place	Column addition and column subtraction, Inverse, Estimate, Round to check, Efficient method, Exchange (in subtraction), Carry (in addition)	Grouping, Remainder, Short multiplication (formal written method) Short division (formal written method, 'bus stop method'), Estimate, Mental strategies, Partitioning (for multiplying larger numbers)	Simplify, Mixed number, Decimal fraction, Fraction wall (visual aid) Add and subtract fractions (with the same denominator), Improper fraction Non-unit fraction (e.g., $\frac{3}{4}$, $\frac{2}{3}$)
What I will know by the end:	I will be able to apply my new skills and knowledge to a range of situations and representation.			



Year 5 Maths Spring term overview



Mathematical strand:	Number	Number	Number	Measurement	Statistics
Topic:	Multiplication and division part 2	Fractions part 2	Decimals and percentages	Perimeter and area	Statistics
Big Question:	What is the best method for multiplication and division, and how can I check my answers?	In business, why is it helpful to find a fraction of an amount?	How are decimals, percentages and fractions connected?	What is the difference between the area and the perimeter of a shape?	How can I use graphs and tables to show data?
Key knowledge and skills:	The small steps of key knowledge and skills in this unit are: • Multiply up to a 4-digit number by a 1-digit number • Multiply a 2-digit number by a 2-digit number (area model) • Multiply a 2-digit number by a 2-digit number • Multiply a 3-digit number by a 2-digit number • Multiply a 4-digit number by a 2-digit number • Solve problems with multiplication • Short division • Divide a 4-digit number by a 1-digit number • Divide with remainders • Efficient division • Solve problems with multiplication and division	The small steps of key knowledge and skills in this unit are: • 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	The small steps of key knowledge and skills in this unit are: • Decimals up to 2 decimal places • Equivalent fractions and decimals (tenths) • Equivalent fractions and decimals (hundredths) • Equivalent fractions and decimals • Thousandths as fractions • Thousandths as decimals • Thousandths on a place value chart • Order and compare decimals (same number of decimal places) • Order and compare any decimals with up to 3 decimal places • Round to the nearest whole number • Round to 1 decimal place • Understand percentages • Percentages as fractions • Percentages as decimals • Equivalent fractions, decimals and percentages	The small steps of key knowledge and skills in this unit are: • Perimeter of rectangles • Perimeter of rectilinear shapes • Perimeter of polygons • Area of rectangles • Area of compound shapes • Estimate area	The small steps of key knowledge and skills in this unit are: • Draw line graphs • Read and interpret line graphs • Read and interpret tables • Two-way tables • Read and interpret timetables
Key vocabulary:	Long multiplication, Short division, Scaling, Estimate and check, Efficient written methods, Mental strategies, Multiplying and dividing by 10, 100, 1000, Express remainders	Percentage, Fraction to decimal conversion, Decimal to fraction conversion, Fraction to percentage conversion, Thousandths, Estimate fractions and decimals, Simplest form, Equivalent decimals and percentages	Order decimals, Round, Estimate decimals, Multiply and divide decimals, Scaling decimals, Place holder, Decimal notation	Dimensions, Square centimetre (cm ²), Square metre (m ²), Formula, Area of rectangles, Area of compound shapes, Composite/compound shape	Interval, Interpret, Compare, Trend, Analyse, Draw
What I will know by the end:	I will be able to apply my new skills and knowledge to a range of situations and representation.				

Year 5 Maths Summer term overview

Mathematical strand:	Geometry	Geometry	Number	Number	Measurement	Measurement
Topic:	Shape	Position and direction	Decimals	Negative numbers	Converting units	Volume
Big Question:	Which jobs use measuring and working with angles?	Where else in school might I use coordinates and how?	How many decimal places do we need in real life and why is it important?	What happens when you count down past zero?	How can we convert and compare different units of measure?	What does volume measure and how can we work it out?
Key knowledge and skills:	The small steps of key knowledge and skills in this unit are: - 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 3-D shapes	The small steps of key knowledge and skills in this unit are: - Read and plot coordinates - Problem solving with coordinates - Translation - Translation with coordinates - Lines of symmetry - Reflection in horizontal and vertical lines	The small steps of key knowledge and skills in this unit are: - Use known facts to add and subtract decimals within 1 - Complements to 1 - Add and subtract decimals across 1 - Add decimals with the same number of decimal places - Subtract decimals with the same number of decimal places - Add decimals with different numbers of decimal places - Subtract decimals with different numbers of decimal places - Efficient strategies for adding and subtracting decimals - Decimal sequences - Multiply by 10, 100 and 1,000 - Divide by 10, 100 and 1,000 - Multiply and divide decimals - missing values	The small steps of key knowledge and skills in this unit are: - Understand negative numbers - Count through zero in 1s - Count through zero in multiples - Compare and order negative numbers - Find the difference	The small steps of key knowledge and skills in this unit are: - Kilograms and kilometres - Millimetres and millilitres - Convert units of length - Convert between metric and imperial units - Convert units of time - Calculate with timetables	The small steps of key knowledge and skills in this unit are: - Cubic centimetres - Compare volume - Estimate volume - Estimate capacity
Key vocabulary:	Cube numbers, Nets of 3D shapes, Diagonals, Internal angles, Angle facts, Estimate and measure angles, Reflex angle, Translation	Coordinate plane, Origin, Axis/ Axes, Quadrant, Negative numbers, Translation, Vector, Reflection	Decimal number, Thousandths, Equivalent decimals, Round decimals, Compare decimals, Order decimals, Mixed number, Improper fraction	Negative number, positive number, zero, integer, above zero, below zero, opposite numbers	Convert, metric units, equivalence Other vocab linked to units of measure	Volume, Cubic unit, Cubic centimetre (cm ³), Cubic metre (m ³), capacity, estimate, formula, measure
What I will know by the end:	I will be able to apply my new skills and knowledge to a range of situations and representation.					