Lesson Overview Year 4 • Number and Fractions

Strand	Unit number	Unit Name	Lesson number	Lesson name	National curriculum in England: mathematics	Lesson outcomes *Pupils will be able to:*
Number	4	Numbers to 100 000	1	Numbers to 100 000	Year 4 Number – number and place value	Read and write multi-digit numbers in numerals, number names, and expanded form.
			2	Place Value		Recognise that a digit in one place represents ten times the value of the place to its right.
			3	Comparing Digits		Use place value understanding to compare digits in numbers.
			4	Comparing Numbers		Compare and order multi-digit numbers based on the digits in each place.
	5	Numbers and Decimals	1	Rounding Numbers	Year 4 Number – number and place value	Use place value understanding to round multi-digit whole numbers to any place value.
			2	Decimal Places	Year 4 Number – fractions (including decimals)	Use division by 10 to extend the place-value system into decimal places.
			3	Compare Decimals		Compare two decimals to hundredths by reasoning about their size using place value.
			4	Money in Decimals		Represent amounts of money in decimal form with two decimal places and use the symbols £ and p.
Fractions	2	Counting Fractions	1	Mixed Numerals	Year 4 Number – fractions (including decimals)	Identify mixed numerals and show how they are composed.
			2	Fraction Number Lines		Count, locate and represent fractions, including mixed numerals, on a number line.
			3	Compare Fractions: Draw a picture		Compare fractions with different numerators and denominators by drawing fraction shapes and arrays.
			4	Compare Fractions: Diagrams		Compare fractions with different numerators and denominators using a fraction wall or number line.
	3	Equivalent Fractions	1	Equivalent Fractions: Draw a diagram		Use shapes, fraction strips and number lines to find and represent equivalent fractions.
			2	Fraction Families		Investigate equivalent fractions by exploring families of fractions on a fraction wall.
			3	Convert Fractions: Count the Parts		Convert between mixed numbers and fractions using diagrams and decomposition.
	4	Decimal Fractions	1	Tenths and Hundredths		Express a fraction with a denominator of 10 as an equivalent fraction with a denominator of 100.
			2	Converting Fractions and Decimals		Write fractions with denominators 10 or 100 as decimals, and vice versa.
			3	Decimal Number Lines		Make connections between 10ths, 100ths and their equivalent decimals on the number line.
			4	Equivalent Fractions and Decimals		Find equivalent decimals for halves, quarters and fifths by converting them to 10ths and 100ths.

Lesson Overview Year 4 • Operations

Strand	Unit number	Unit Name	Lesson number	Lesson name	National curriculum in England: mathematics	Lesson outcomes *Pupils will be able to:*
Operations	7	Addition and Subtraction Strategies 2	1	Addition Strategies	Year 4 Number – addition and subtraction	Use place value understanding to assist calculations.
			2	Subtraction Strategies		Use place value understanding and the inverse operation to assist calculations.
			3	Making Calculations Easier		Use rounding and an understanding of difference to assist calculations.
			4	Finding Unknown Quantities		Find unknown quantities in number sentences involving addition and subtraction.
	8	Addition and Subtraction Algorithms	1	Algorithms: Addition		Fluently add multi-digit whole numbers using the standard algorithm.
			2	Algorithms: Subtraction		Fluently subtract multi-digit whole numbers using the standard algorithm.
			3	Word Problems: Add & Subtract		Solve multi-step word problems involving addition and subtraction of whole numbers.
	9	Multiplication Thinking	1	The Times Tables	Year 4 Number – multiplication and division	Recall multiplication facts up to 10 × 10.
			2	Factors		Identify and describe factors of whole numbers from 1 to 100.
			3	Multiples within 100		Investigate multiples within the times tables.
			4	Equivalent Multiplication Facts		Recall multiplication facts up to 10 × 10 to find equations with the same answer.
	10	Multiplication Strategies	1	Multiplication by 10, 100 and 1000		Multiply using strategies based on place value.
			2	Mental Maths: Multiplication 1		Multiply using strategies based on the commutative and associative properties of multiplication.
			3	Mental Maths: Multiplication 2		Multiply using a strategy based on the distributive property of multiplication.
	11	Division Strategies	1	Division Facts		Recall division facts related to the multiplication facts up to 10 × 10.
			2	Mental Maths: Division Strategies 1		Find quotients using the inverse relationship between multiplication and division.
			3	Mental Maths: Division Strategies 2		Find quotients using the distributive property of division.
	12	Operations with Odd and Even Numbers	1	Odds and Evens in Addition and Subtraction	Year 4 Number – addition and subtraction	Investigate the properties of odd and even numbers in addition and subtraction equations.
			2	Odds and Evens in Multiplication	Year 4 Number – multiplication and division	Investigate the properties of odd and even numbers in multiplication equations.
			3	Doubling		Use doubling as a mental strategy for multiplication by 2, 4 and 8.
			4	Halving		Use halving as a mental strategy for division by 2, 4 and 8 where there is no remainder.
	13	Multiplication Patterns	1	Multiplication Number Sequences		Explore and describe number patterns resulting from performing multiplication.
			2	Multiplication Patterns in a 100 Square		Explore and describe patterns of multiples in a 100 square.
			3	The Multiplication Chart		Find answers and explore patterns in the multiplication chart.
	14	Word Problems	1	Word Problems: Multiplication		Solve multi-step word problems involving multiplication of whole numbers.
			2	Word Problems: Division		Solve multi-step word problems involving division of whole numbers.
			3	Word Problems: Money	Year 4 Number – addition and subtraction	Solve problems involving purchases and the calculation of change to the nearest five pence.

Lesson Overview Year 4 • Geometry

Strand	Unit number	Unit Name	Lesson number	Lesson name	National curriculum in England: mathematics	Lesson outcomes *Pupils will be able to:*
Geometry	5	Shapes and Objects	1	Combining 2D Shapes	Year 4 Geometry – Properties of shapes	Put 2D shapes together to make composite shapes.
			2	Splitting 2D Shapes		Split 2D shapes into smaller shapes.
			3	Classify 3D Objects		Classify 3D figures based on curved surfaces, flat faces, base shapes and vertices.
			4	Views of 3D Objects		Identify 3D objects based on the 2D shapes that can be seen when looking at them from a specific viewpoint.
	6	Shape Movements	1	Rotation		Identify clockwise, anticlockwise, quarter, half and three-quarter turns.
			2	Symmetrical Designs		Use flips and reflections to make symmetrical designs.
			3	Tessellation		Use flips, slides and turns to tessellate shapes and identify shapes that do/do not tessellate.
	7	Angles	1	Types of angles 1		Identify right, acute and obtuse angles, including in two-dimensional shapes.
			2	Types of angles 2		Identify straight and reflex angles and revolutions.
			3	Classifying Angles		Classify angles from 1–360 degrees by thinking about how they relate to right angles.
	8	Maps	1	Compass Directions		Learn the compass directions, including the four cardinal points and the ordinal points between them.
			2	Map Legends and Scales		Use simple scales and legends to interpret information contained in basic maps.
			3	Using a Map		Use simple scales, legends and directions to interpret information contained in basic maps.