Mathematics Long Term Plan

Ibis 2024-2025

Autumn

	National Curriculum Objectives	Small Steps
Number: Place Value **4 weeks**	• Count in multiples of 6, 7, 9, 25 and 1000. • Find 1000 more or less than a given number. • Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones) • Order and compare numbers beyond 1000 • Identify, represent and estimate numbers using different representations. • Round any number to the nearest 10, 100 or 1000 • Solve number and practical problems that involve all of the above and with increasingly large positive numbers. • Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.	• 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
Number: Addition and Subtraction **3 weeks**	• Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. • Estimate and use inverse operations to check answers to a calculation. • Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.	• 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
Measurement: Area **1 week**	• Find the area of rectilinear shapes by counting squares.	• What is area? • Count squares • Make shapes • Compare areas
Number: Multiplication and Division A **3 weeks**	• Recall and use multiplication and division facts for multiplication tables up to 12 × 12. • Count in multiples of 6, 7, 9, 25 and 1000 • Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers. • Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.	• Multiples of 3 • Multiply and divide by 6 • 6 times-table and division facts • Multiply and divide by 9 • 9 times-table and division facts • The 3, 6 and 9 times-tables • Multiply and divide by 7 • 7 times-table and division facts • 11 times-table and division facts • 12 times-table and division facts • Multiply by 1 and 0 • Divide a number by 1 and itself • Multiply three numbers
Consolidation **1 week**		

Spring

	National Curriculum Objectives	Small Steps
Number: Multiplication and Division B **3 weeks**	• Recall and use multiplication and division facts for multiplication tables up to 12 × 12. • Count in multiples of 6, 7, 9, 25 and 1000 • Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers. • Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.	• Factor pairs • Use factor pairs • Multiply by 10 • Multiply by 100 • Divide by 10 • Divide by 100 • Related facts - multiplication and division • Informal written methods for multiplication • Multiply a 2-digit number by a 1-digit number • Multiply a 3-digit number by a 1-digit number • Divide a 2-digit number by a 1-digit number (1) • Divide a 2-digit number by a 1-digit number (2) • Divide a 3-digit number by a 1-digit number • Correspondence problems • Efficient multiplication
Measurement: Length and Perimeter **2 weeks**	• Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • Convert between different units of measure [for example, kilometre to metre]	• 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 • Calculate the perimeter of rectilinear shapes • Perimeter of regular polygons • Perimeter of polygons
Number: Fractions **4 weeks**	• Recognise and show, using diagrams, families of common equivalent fractions. • Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. • Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number. • Add and subtract fractions with the same denominator.	• 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 on a number line • Equivalent fraction families

		• Add two or more fractions • Add fractions and mixed numbers • Subtract two fractions • Subtract from whole amounts • Subtract from mixed numbers
Number: Decimals A **3 weeks**	• Recognise and write decimal equivalents of any number of tenths or hundredths. • Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths • Solve simple measure and money problems involving fractions and decimals to two decimal places. • Convert between different units of measure [for example, kilometre to metre]	• Tenths as fractions • Tenths as decimals • Tenths on a place value chart • Tenths on a number line • Divide a 1-digit number by 10 • Divide a 2-digit number by 10 • Hundredths as fractions • Hundredths as decimals • Hundredths on a place value chart • Divide a 1- or 2-digit number by 100

Summer

	National Curriculum Objectives	Small Steps
Number: Decimals B **2 weeks**	• Compare numbers with the same number of decimal places up to two decimal places. • Round decimals with one decimal place to the nearest whole number. • Recognise and write decimal equivalents to ¼, ½ and ¾. • Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths	• 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
Measurement: Money **2 weeks**	• Estimate, compare and calculate different measures, including money in pounds and pence. • Solve simple measure and money problems involving fractions and decimals to two decimal places.	• 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 **2 weeks**	• Convert between different units of measure [for example, kilometre to metre; hour to minute] • Read, write and convert time between analogue and digital 12- and 24-hour clocks. • Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	• Years, months, weeks and days • Hours, minutes and seconds • Convert between analogue and digital times • Convert to the 24hour clock • Convert from the 24hour clock
Consolidation **1 week**		
Geometry: Shape **2 weeks**	• Identify acute and obtuse angles and compare and order angles up to two right angles by size. • Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. • Identify lines of symmetry in 2-D shapes presented in different orientations. • Complete a simple symmetric figure with respect to a specific line of symmetry.	• Understand angles as turns • Identify angles • Compare and order angles • Triangles • Quadrilaterals • Polygons • Lines of symmetry • Complete a symmetric figure
Statistics **1 week**	• Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.	• Interpret charts • Comparison, sum and difference • Interpret line graphs • Draw line graphs

	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	
Geometry: Position and Direction **2 week**	- Describe positions on a 2-D grid as coordinates in the first quadrant. - Plot specified points and draw sides to complete a given polygon. - Describe movements between positions as translations of a given unit to the left/ right and up/ down.	- Describe position using coordinates - Plot coordinates - Draw 2-D shapes on a grid - Translate on a grid - Describe translation on a grid