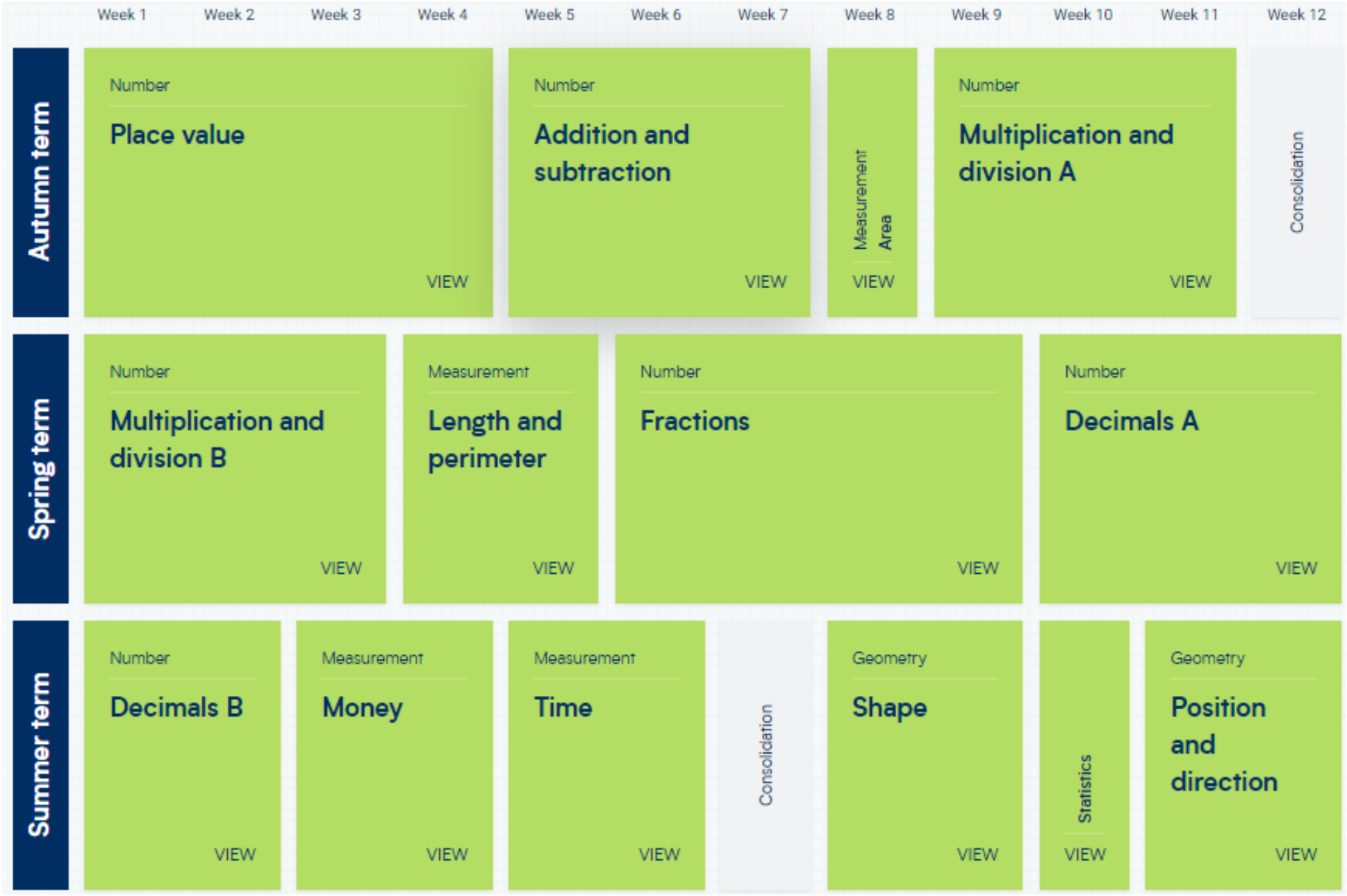
YEAR 4 - Maths Curriculum



AUTUMN TERM

National Curriculum	Small Steps
Number and Place Value (4 Weeks) Identify, represent and estimate numbers using different representations. Count in multiples of 6, 7, 9, 25 and 1000. Recognise the place value of each digit in a 4-digit number (1000, 100, 10, 1). Find 1000 more or less than a given number. Order and compare numbers beyond 1000. 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. 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. Count backwards through zero to include negative numbers.	Step 1 Represent numbers to 1,000 Step 2 Partition numbers to 1,000 Step 3 Number line to 1,000 Step 4 Thousands Step 5 Represent numbers to 10,000 Step 6 Partition numbers to 10,000 Step 7 Flexible partitioning of numbers to 10,000 Step 8 Find 1, 10, 100, 1,000 more or less Step 9 Number line to 10,000 Step 10 Estimate on a number line to 10,000 Step 11 Compare numbers to 10,000 Step 12 Order numbers to 10,000 Step 13 Roman numerals Step 14 Round to the nearest 10 Step 15 Round to the nearest 100 Step 16 Round to the nearest 1,000 Step 17 Round to the nearest 10, 100 or 1,000
Number + & - (3 Weeks) Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. Estimate and use inverse operations to check answers to a calculation.	Step 1 Add and subtract 1s, 10s, 100s and 1,000s Step 2 Add up to two 4-digit numbers – no exchange Step 3 Add two 4-digit numbers – one exchange Step 4 Add two 4-digit numbers – more than one exchange Step 5 Subtract two 4-digit numbers – no exchange Step 6 Subtract two 4-digit numbers – one exchange Step 7 Subtract two 4-digit numbers – more than one exchange Step 8 Efficient subtraction Step 9 Estimate answers Step 10 Checking strategies
Measure Area (1 Week) Find the area of rectilinear shapes by counting squares.	Step 1 What is area? Step 2 Count squares Step 3 Make shapes Step 4 Compare areas

AUTUMN TERM

National Curriculum	Small Steps
Number x & / (3 Weeks) Recall multiplication facts up to 12x12. Recognise and use factor pairs and commutativity in mental calculations. 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.	

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SPRING TERM

National Curriculum	Small Steps
Number x & / (3 Weeks) Recognise and use factor pairs and commutativity in mental calculations. Recall multiplication facts up to 12x12. 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. Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. 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.	Step 1 Factor pairs Step 2 Use factor pairs Step 3 Multiply by 10 Step 4 Multiply by 100 Step 5 Divide by 10 Step 6 Divide by 100 Step 7 Related facts – multiplication and division Step 8 Informal written methods for multiplication Step 9 Multiply a 2-digit number by a 1-digit number Step 10 Multiply a 3-digit number by a 1-digit number Step 11 Divide a 2-digit number by a 1-digit number (1) Step 12 Divide a 2-digit number by a 1-digit number (2) Step 13 Divide a 3-digit number by a 1-digit number Step 14 Correspondence problems Step 15 Efficient multiplication
Length and Perimeter (2 Weeks) Convert between different units of measure [for example, kilometre to metre). Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.	Step 1 Measure in kilometres and metres Step 2 Equivalent lengths (kilometres and metres) Step 3 Perimeter on a grid Step 4 Perimeter of a rectangle Step 5 Perimeter of rectilinear shapes Step 6 Find missing lengths in rectilinear shapes Step 7 Calculate perimeter of rectilinear shapes Step 8 Perimeter of regular polygons Step 9 Perimeter of polygons

SPRING TERM—Continued

National Curriculum	Small Steps
Fractions (4 Weeks) Recognise and show, using diagrams, families of common equivalent fractions. Add and subtract fractions with the same denominator. 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.	Step 1 Understand the whole Step 2 Count beyond 1 Step 3 Partition a mixed number Step 4 Number lines with mixed numbers Step 5 Compare and order mixed numbers Step 6 Understand improper fractions Step 7 Convert mixed numbers to improper fractions Step 8 Convert improper fractions to mixed numbers Step 9 Equivalent fractions on a number line Step 10 Equivalent fraction families Step 11 Add two or more fractions Step 12 Add fractions and mixed numbers Step 13 Subtract two fractions Step 14 Subtract from whole amounts Step 15 Subtract from mixed numbers
Decimals (3 Weeks) Recognise and write decimal equivalents of any number of tenths or hundredths. Compare numbers with the same number of decimal places up to two decimal places. Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths. Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Recognise and show, using diagrams, families of common equivalent fractions.	Step 1 Tenths as fractions Step 2 Tenths as decimals Step 3 Tenths on a place value chart Step 4 Tenths on a number line Step 5 Divide a 1-digit number by 10 Step 6 Divide a 2-digit number by 10 Step 7 Hundredths as fractions Step 8 Hundredths as decimals Step 9 Hundredths on a place value chart Step 10 Divide a 1- or 2-digit number by 100

SUMMER TERM

National Curriculum	Small Steps
Decimals (2 Weeks) Recognise and write decimal equivalents of any number of tenths or hundredths. Compare numbers with the same number of decimal places up to two decimal places. Solve simple measure and money problems involving fractions and decimals to two decimal places. Round decimals with one decimal place to the nearest whole number. Recognise and write decimal equivalents to 1/4, 1/2, 3/4.	Step 1 Make a whole with tenths Step 2 Make a whole with hundredths Step 3 Partition decimals Step 4 Flexibly partition decimals Step 5 Compare decimals Step 6 Order decimals Step 7 Round to the nearest whole number Step 8 Halves and quarters as decimals
Measures (Money—2 Weeks) Estimate, compare and calculate different measures, including money In pounds and pence.	Step 1 Write money using decimals Step 2 Convert between pounds and pence Step 3 Compare amounts of money Step 4 Estimate with money Step 5 Calculate with money Step 6 Solve problems with money
Measure (Time—2 Weeks) Convert hours to minutes, minutes to seconds, years to months or weeks to days. Solve problems involving converting hours to minutes, minutes to seconds, years to months or weeks to days. Read, write and convert time between analogue and digital 12 and 24 hour clocks.	Step 1 Years, months, weeks and days Step 2 Hours, minutes and seconds Step 3 Convert between analogue and digital times Step 4 Convert to the 24-hour clock Step 5 Convert from the 24-hour clock

SUMMER TERM

National Curriculum	Small Steps
Geometry (Shape—2 Weeks) Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. Identify acute and obtuse angles and compare and order angles up to two right angles by size. 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.	Step 1 Understand angles as turns Step 2 Identify angles Step 3 Compare and order angles Step 4 Triangles Step 5 Quadrilaterals Step 6 Polygons Step 7 Lines of symmetry Step 8 Complete a symmetric figure
Statistics (1 Week) Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	Step 1 Interpret charts Step 2 Comparison, sum and difference Step 3 Interpret line graphs Step 4 Draw line graphs
Geometry (Position—2 Weeks) Describe positions on a 2-D grid as co-ordinates in the first quadrant. Describe movements between positions as translations of a given unit to the left/right and up/down. Plot specified points and draw sides to complete a given polygon.	Step 1 Describe position using coordinates Step 2 Plot coordinates Step 3 Draw 2-D shapes on a grid Step 4 Translate on a grid Step 5 Describe translation on a grid

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