Autumn				
Weeks	Sequence and Theme	National Curriculum Links	Learning Questions (Small Steps)	Key Vocabulary
1-3	<u>Number</u> Place Value	• Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals • Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit • Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 • Solve number problems and practical problems involving the above • Round any number up to 1,000,000 to the nearest 10, 100, 1,000,10,000 and 100,000	1. Can I recognise Roman Numerals to 1,000? 2. Can I recognise numbers to 10,000? 3. Can I recognise numbers to 100,000? 4. Can I recognise numbers to 1,000,000? 5. Can I read and write numbers to 1,000,000? 6. Can I further develop my understanding of place value by exploring the relationship between numbers in different columns (powers of 10)? 7. Can I find 10/100/1,000/10,000/100,000 more or less of any given number? 8. Can I partition numbers to 1,000,000? 9. Can I use a number line to 1,000,000? 10. Can I compare and order numbers to 100,000? 11. Can I compare and order numbers to 1,000,000? 12. Can I round to the nearest 10, 100 or 1,000? 13. Can I round within 100,000? 14. Can I round within 1,000,000?	*Powers of 10* *Tenths, hundredths* *Decimal (places)* *Round (to nearest)* *Thousand more/less than* *Negative integers* *Count through zero* *Roman numerals (I to C)* *Numbers to one thousand* *Numbers to one hundred* *Hundreds* *Partition, recombine* *Hundred more/less* *None* *Count (on/up/to/from/down)* *Before, after* *More, less, many,* *Few, fewer, least, fewest, smallest, greater, lesser* *Equal to, the same as* *Odd, even* *Pair* *Units, ones, tens* *Ten more/less* *Digit, Numeral, Figure(s)* *Compare* *Size* *Value* *Between, Halfway between, Above, below*
4-5	<u>Number</u> Addition and Subtraction	• Add and subtract numbers mentally with increasingly large numbers • Add and subtract whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction) • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000 • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	1. Can I mentally calculate sums (mental strategies)? 2. Can I add whole numbers with more than four digits? 3. Can I subtract whole numbers with more than four digits? 4. Can I round to check answers? 5. Can I use inverse operations (addition and subtraction)? 6. Can I answer multi-step addition and subtraction problems? 7. Can I compare calculations? 8. Can I find missing numbers in calculations?	*Efficient written method* *Column addition and subtraction* *Number bonds, number line* *Add, more, plus, make, sum, total, altogether* *Inverse* *Double* *Half, halve* *Equals, is the same as (including equals sign)* *Difference between* *How many more to make…?* *How many more is…than…?* *How much more is…?* *Subtract, take away, minus* *How many fewer is…than…?* *How much less is…?* *How many left?*
6-8	<u>Number</u> Multiplication and Division	• Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers • Solve problems involving multiplication and division, including using their	1. Can I find sets of multiples of given numbers and make generalisations about them? 2. Can I find common multiples of any pair of numbers? 3. Can I explain they the relationship between multiplication and division and consolidate	*Factor pairs* *Composite numbers, prime number, prime factors, square number, cubed number* *Formal written method* *Multiplication facts (up to 12x12)* *Division facts*

		knowledge of factors and multiples, squares and cubes • Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers • Establish whether a number up to 100 is prime and recall prime numbers up to 19 • Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 • Multiply and divide numbers mentally, drawing upon known facts	my understanding of the words "factor" and "multiple"? 4. Can I recognise common factors? 5. Can I recognise Prime numbers? 6. Can I recognise Square numbers? 7. Can I recognise Cube numbers? 8. Can I multiply by 10, 100 and 1,000? 9. Can I divide by 10, 100 and 1,000? 10. Can I multiply and divide by multiples of 10, 100 and 1,000?	*Inverse* *Derive* *Product* *Multiples of four, eight, fifty and one hundred* *Scale up* *Odd, even* *Count in twos, threes, fives* *Count in tens (forwards from/backwards from)* *How many times?* *Lots of, groups of* *Once, twice, three times, five times* *Multiple of, times, multiply, multiply by* *Repeated addition* *Array, row, column* *Double, halve* *Share, share equally* *Group in pairs, threes, etc.* *Equal groups of, Divide, divided by, left, left over*
9-12	<u>Number</u> Fractions A	• Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number • Compare and order fractions whose denominators are all multiples of the same number • Add and subtract fractions with the same denominator, and denominators that are multiples of the same number	1. Can I find fractions equivalent to a unit fraction? 2. Can I find fractions equivalent to a non-unit fraction? 3. Can I recognise equivalent fractions? 4. Can I convert improper fractions to mixed numbers? 5. Can I convert mixed numbers to improper fractions? 6. Can I compare fractions less than 1? 7. Can I order fractions less than 1? 8. Can I compare and order fractions greater than 1? 9. Can I add and subtract fractions with the same denominator? 10. Can I add fractions within 1? 11. Can I add fractions with total greater than 1? 12. Can I add to a mixed number? 13. Can I add two mixed numbers? 14. Can I subtract fractions? 15. Can I subtract from a mixed number? 16. Can I subtract from a mixed number – breaking the whole? 17. Can I subtract two mixed numbers?	*Proper fractions, improper fractions, mixed numbers* *Percentage* *Half, quarter, fifth, two fifths, four fifths* *Ratio, proportion* *Equivalent decimals and fractions* *Numerator, denominator* *Unit fraction, non-unit fraction* *Compare and order* *Tenths* *Three quarters, one third, a third* *Equivalence, equivalent* *Whole* *Equal parts, four equal parts* *One half, two halves* *A quarter, two quarters*
13-14	*Consolidate Autumn 1 learning through recap, revision and real life experiences.* ** Teacher's discretion to start Spring Topic 1 in Week 13/14*			

Spring				
Weeks	Sequence and Theme	National Curriculum Links	Learning Questions (Small Steps)	Key Vocabulary
1-3	<u>Number</u> Multiplication & Division B	• Multiply numbers up to four digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2-digit numbers	15. Can I multiply up to a 4-digit number by a 1-digit number? 16. Can I multiply a 2-digit number by a 2-digit number (area model)?	*Factor pairs* *Composite numbers, prime number, prime factors, square number, cubed number* *Formal written method*

		• Divide up to four digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context • Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes	17. Can I multiply a 2-digit number by a 2-digit number using the formal written method? 18. Can I multiply a 3-digit number by a 2-digit number using the formal written method? 19. Can I multiply a 4-digit number by a 2-digit number using the formal written method? 20. Can I solve problems with multiplication? 21. Can I use the formal written method for short division? 22. Can I divide a 4-digit number by a 1-digit number? 23. Can I divide with remainders? 24. Can I choose the most efficient division method to use in a range of contexts? 25. Can I solve problems with multiplication and division?	*Multiplication facts (up to 12x12)* *Division facts* *Inverse* *Derive* *Product* *Multiples of four, eight, fifty and one hundred* *Scale up* *Odd, even* *Count in twos, threes, fives* *Count in tens (forwards from/backwards from)* *How many times?* *Lots of, groups of* *Once, twice, three times, five times* *Multiple of, times, multiply, multiply by* *Repeated addition* *Array, row, column* *Double, halve* *Share, share equally* *Group in pairs, threes, etc.* *Equal groups of, Divide, divided by, left, left over*
4-5	<u>Number</u> Fractions B	• Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams • 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 (Y4)	1. Can I multiply a unit fraction by an integer? 2. Can I multiply a non-unit fraction by an integer? 3. Can I multiply a mixed number by an integer? 4. Can I calculate a fraction of a quantity? 5. Can I find a fraction of an amount? 6. Can I use a fraction of an amount to find the whole? 7. Can I use fractions as operators?	*Proper fractions, improper fractions, mixed numbers* *Percentage* *Half, quarter, fifth, two fifths, four fifths* *Ratio, proportion* *Equivalent decimals and fractions* *Numerator, denominator* *Unit fraction, non-unit fraction* *Compare and order* *Tenths* *Three quarters, one third, a third* *Equivalence, equivalent* *Whole* *Equal parts, four equal parts* *One half, two halves* *A quarter, two quarters*
6-8	<u>Number</u> Decimal & Percentages	• Read, write, order and compare numbers with up to 3 decimal places • Read and write decimal numbers as fractions • Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • Solve problems which require knowing percentage and decimal equivalents of 1/2 , 1/4 , 1/5 , 2/5 , 4/5 and those fractions with a denominator of a multiple of 10 or 25 • Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • Solve problems involving numbers up to 3 decimal places	1. Can I identify decimals up to 2 decimal places? 2. Can I find equivalent fractions and decimals (tenths)? 3. Can I find equivalent fractions and decimals (hundredths)? 4. Can I find equivalent fractions and decimals? 5. Can I find thousandths as fractions? 6. Can I write thousandths as decimals? 7. Can I identify thousandths on a place value chart? 8. Can I order and compare decimals (same number of decimal places)? 9. Can I order and compare any decimals with up to 3 decimal places? 10. Can I round decimal numbers to the nearest whole number? 11. Can I round decimal numbers to the nearest 1 decimal place?	*Proper fractions, improper fractions, mixed numbers* *Percentage* *Half, quarter, fifth, two fifths, four fifths* *Ratio, proportion* *Equivalent decimals and fractions* *Numerator, denominator* *Unit fraction, non-unit fraction* *Compare and order* *Tenths* *Three quarters, one third, a third* *Equivalence, equivalent* *Whole* *Equal parts, four equal parts* *One half, two halves* *A quarter, two quarters*

		• Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place • Recognise the per cent symbol (%) and understand that per cent relates to "number of parts per a fraction with denominator 100, and as a decimal fraction	12. Can I understand percentages? 13. Can explore percentages by comparing them to fractions? 14. Can I find decimal equivalents to percentages? 15. Can I find equivalent fractions, decimals and percentages?	
9-10	<u>Measurement</u> Perimeter & Area	• Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm2) and square metres (m2), and estimate the area of irregular shapes	1. Can I find the perimeter of rectangles? 2. Can I find the perimeter of rectilinear shapes? 3. Can I find the perimeter of polygons? 4. Can I find the area of rectangles? 5. Can I calculate the area of compound shapes? 6. Can I estimate area? Can I use my knowledge of counting squares to estimate the areas of non-rectilinear shapes?	*Volume* *Imperial units, metric units* *Convert* *Leap year* *Twelve hour/twenty-four-hour clock* *Roman numerals I to XIII* *Quarter past/to m/km, g/kg, ml/l* *Temperature (degrees)* *Full, half full, empty* *Holds, Container* *Weigh, weighs, balances* *Heavy, heavier, heaviest, light, lighter, lightest* *Scales* *Time, Days of the week: Monday, Tuesday, etc.* *Seasons: spring, summer, autumn, winter* *Day, week, month, year, weekend* *Birthday, holiday* *Morning, afternoon, evening, night, midnight* *Bedtime, dinnertime, playtime* *Today, yesterday, tomorrow* *Before, after* *Next, last* *Now, soon, early, late* *Quick, quicker, quickest, quickly, fast, faster, fastest, slow, slower, slowest, slowly* *Old, older, oldest, new, newer, newest* *Takes longer, takes less time* *Hour, o'clock, half past* *Clock, watch, hands* *How long ago? how long will it be to…? how long will it take to…? how often?* *Always, never, often, sometimes, usually* *Once, twice* *First, second, third, etc.* *Estimate, close to, about the same as, just over, just under, Too many, too few, not enough, enough* *Length, width, height, depth* *Long, longer, longest, short, shorter shortest, tall, taller, tallest, high, higher, highest* *Low, wide, narrow, deep, shallow, thick, thin,* *Far, near, close* *Metre, ruler, metre stick* *Money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, dear(er), costs more, costs less, cheaper, costs the same as* *How much? how many?* *Total*

11-12	Statistics	• Solve comparison, sum and difference problems using information presented in a line graph • Complete, read and interpret information in tables, including timetable	1. Can I interpret and draw line graphs? 2. Can I read and interpret line graphs? 3. Can I read and interpret data presented in a table? 4. Can I explore and understand two-way tables? 5. Can I read and interpret timetables?	*Mean* *Pie chart* *Construct* *Continuous data* *Line graph* *Chart, bar chart, frequency table, Carroll diagram,* *Venn diagram* *Axis, axes* *Diagram* *Count, tally, sort* *Vote* *Graph, block graph, pictogram,* *Represent* *Group, set, list, table* *Label, title* *Most popular, most common, least popular, least common*

Summer				
Weeks	Sequence and Theme	National Curriculum Links	Learning Questions (Small Steps)	Key Vocabulary
1-3	Geometry Shape	• Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles • Draw given angles, and measure them in degrees (°) • Identify angles at a point and 1 whole turn (total 360°) • Identify: angles at a point and 1 whole turn (total 360°); angles at a point on a straight line and half a turn (total 180°) • Use the properties of rectangles to deduce related facts and find missing lengths and angles • Distinguish between regular and irregular polygons based on reasoning about equal sides and angles • Identify 3-D shapes, including cubes and other cuboids, from 2-D representations	1. Can I understand and use degrees? 2. Can I classify angles? 3. Can I estimate angles? 4. Can I measure angles up to 180°? 5. Can I draw lines and angles accurately? 6. Can I calculate angles around a point? 7. Can I calculate angles on a straight line? 8. Can I calculate lengths and angles in shapes? 9. Can I identify regular and irregular polygons? 10. Can I identify 3-D shapes and their properties?	*Size* *Bigger, larger, smaller* *Symmetrical, line of symmetry* *Fold* *Match* *Mirror line, reflection* *Pattern, repeating pattern* *Group, sort* *Cube, cuboids, pyramid, sphere, cone, cylinder, circle, triangle, square* *Shape* *Flat, curved, straight, round* *Hollow, solid* *Corner (point, pointed), Vertices* *Face, side, edge* *Make, build, draw* *Horizontal, vertical, perpendicular and parallel lines* *Quadrilaterals* *Triangles* *Right angle, acute and obtuse angles* *Regular and irregular Polygons*
4-5	Geometry Position & Direction	• Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed	1. Can I read and plot coordinates? 2. Can I problem solve with coordinates? 3. Can I translate shapes on square grids and coordinate grids? 4. Can I explain how coordinates change when points are translated? 5. Can I identify the different lines of symmetry in 2-D shapes? 6. Can I identify and compare reflections in horizontal and vertical lines?	*Position* *Over, under, underneath, above, below, top, bottom, side* *On, in, outside, inside* *Around, in front, behind* *Front, back* *Before, after* *Beside, next to, opposite* *Apart* *Between, middle, edge, centre* *Corner*

				Direction *Left, right, up, down, forwards, backwards, sideways* *Across* *Close, far, near* *Along, through* *To, from, towards, away from* *Movement* *Slide, roll, turn, whole turn, half turn* *Stretch, bend* *Rotation* *Clockwise, anticlockwise* *Straight line* *Ninety degree turn, right angle* *Greater/less than ninety degrees* *Orientation (same orientation, different orientation)* *Coordinates* *Translation* *Quadrant* *x-axis, y-axis* *Perimeter and area* *Reflex angle* *Dimensions*
6-8	<u>Number</u> Decimals	• Recognise and use thousandths and relate them to tenths, hundredths decimal equivalents • Solve problems involving number up to 3 decimal places • Read, write, order and compare numbers with up to 3 decimal places • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000	1. Can I use known facts to add and subtract decimals within 1? 2. Can I find complements to 1 for numbers with up to 3 decimal places? 3. Can I add and subtract decimals across 1? 4. Can I add decimals with the same number of decimal places? 5. Can I subtract decimals with the same number of decimal places? 6. Can I add decimals with different numbers of decimal places? 7. Can I subtract decimals with different numbers of decimal places? 8. Can I identify and use efficient strategies for adding and subtracting decimals? 9. Can I combine my knowledge of number sequences and decimals to explore and identify decimal sequences? 10. Can I multiply decimals by 10, 100 and 1,000? 11. Can I divide decimals by 10, 100 and 1,000? 12. Can I use my knowledge of multiplying and dividing decimals to work out missing values?	*Proper fractions, improper fractions, mixed numbers* *Percentage* *Half, quarter, fifth, two fifths, four fifths* *Ratio, proportion* *Equivalent decimals and fractions* *Numerator, denominator* *Unit fraction, non-unit fraction* *Compare and order* *Tenths* *Three quarters, one third, a third* *Equivalence, equivalent* *Whole* *Equal parts, four equal parts* *One half, two halves* *A quarter, two quarters*
9	<u>Number</u> Negative Numbers	• Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	1. Can I understand negative numbers? 2. Can I count through zero in 1s? 3. Can I count through zero in multiples? 4. Can I compare and order negative numbers? 5. Can I find the difference between positive and negative numbers?	*Powers of 10* *Tenths, hundredths* *Decimal (places)* *Round (to nearest)* *Thousand more/less than* *Negative integers* *Count through zero* *Roman numerals (I to C)* *Numbers to one thousand*

				Numbers to one hundred *Hundreds* *Partition, recombine* *Hundred more/less* *None* *Count (on/up/to/from/down)* *Before, after* *More, less, many,* *Few, fewer, least, fewest, smallest, greater, lesser* *Equal to, the same as* *Odd, even* *Pair* *Units, ones, tens* *Ten more/less* *Digit, Numeral, Figure(s)* *Compare* *Size* *Value* *Between, Halfway between, Above, below*
10-11	<u>Measurement</u> Converting Units	• Convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre] • Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints • Solve problems involving converting between units of time	1. Can recap my knowledge of kilograms and kilometres and their relationship to grams and metres, respectively? 2. Can I recap my knowledge of millimetres and millilitres and convert between related units of measurement (between mm and m and between ml and l)? 3. Can I convert units of length? 4. Can I convert between metric and imperial units? 5. Can I convert units of time? 6. Can I use timetables to solve problems that involve calculation with time?	*Volume* *Imperial units, metric units* *Convert* *Leap year* *Twelve hour/twenty-four-hour clock* *Roman numerals I to XIII* *Quarter past/to m/km, g/kg, ml/l* *Temperature (degrees)* *Full, half full, empty* *Holds, Container* *Weigh, weighs, balances* *Heavy, heavier, heaviest, light, lighter, lightest* *Scales* *Time, Days of the week: Monday, Tuesday, etc.* *Seasons: spring, summer, autumn, winter* *Day, week, month, year, weekend* *Birthday, holiday* *Morning, afternoon, evening, night, midnight* *Bedtime, dinnertime, playtime* *Today, yesterday, tomorrow* *Before, after* *Next, last* *Now, soon, early, late* *Quick, quicker, quickest, quickly, fast, faster, fastest, slow, slower, slowest, slowly* *Old, older, oldest, new, newer, newest* *Takes longer, takes less time* *Hour, o'clock, half past* *Clock, watch, hands* *How long ago? how long will it be to…? how long will it take to…? how often?* *Always, never, often, sometimes, usually* *Once, twice* *First, second, third, etc.* *Estimate, close to, about the same as, just over, just under, Too many, too few, not enough, enough*

				Length, width, height, depth *Long, longer, longest, short, shorter shortest, tall, taller, tallest, high, higher, highest* *Low, wide, narrow, deep, shallow, thick, thin,* *Far, near, close* *Metre, ruler, metre stick* *Money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, dear(er), costs more, costs less, cheaper, costs the same as* *How much? how many?* *Total*
12	<u>Measurement</u> Volume	• Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity • Estimate volume and capacity [for example, using water]	1. Can I cubic centimetres to measure volume? 2. Can I compare volumes? 3. Can I estimate volumes? 4. Can I estimate capacity of different objects?	*Volume* *Imperial units, metric units* *Convert* *Leap year* *Twelve hour/twenty-four-hour clock* *Roman numerals I to XIII* *Quarter past/to m/km, g/kg, ml/l* *Temperature (degrees)* *Full, half full, empty* *Holds, Container* *Weigh, weighs, balances* *Heavy, heavier, heaviest, light, lighter, lightest* *Scales* *Time, Days of the week: Monday, Tuesday, etc.* *Seasons: spring, summer, autumn, winter* *Day, week, month, year, weekend* *Birthday, holiday* *Morning, afternoon, evening, night, midnight* *Bedtime, dinnertime, playtime* *Today, yesterday, tomorrow* *Before, after* *Next, last* *Now, soon, early, late* *Quick, quicker, quickest, quickly, fast, faster, fastest, slow, slower, slowest, slowly* *Old, older, oldest, new, newer, newest* *Takes longer, takes less time* *Hour, o'clock, half past* *Clock, watch, hands* *How long ago? how long will it be to…? how long will it take to…? how often?* *Always, never, often, sometimes, usually* *Once, twice* *First, second, third, etc.* *Estimate, close to, about the same as, just over, just under, Too many, too few, not enough, enough* *Length, width, height, depth* *Long, longer, longest, short, shorter shortest, tall, taller, tallest, high, higher, highest* *Low, wide, narrow, deep, shallow, thick, thin,* *Far, near, close* *Metre, ruler, metre stick*

				Money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, dear(er), costs more, costs less, cheaper, costs the same as *How much? how many? Total*