Autumn				
Weeks	Sequence and Theme	National Curriculum Links	Learning Questions (Small Steps)	Key Vocabulary
1-2	Number Place Value	• Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit • Solve number and practical problems that involve the above • Round any whole number to a required degree of accuracy • Use negative numbers in context, and calculate intervals across zero	1. Can I recognise numbers to 1,000,000? 2. Can I recognise numbers to 10,000,000? 3. Can I read and write numbers to 10,000,000? 4. Can I use my place value knowledge to identify integers that are 10, 100, 1,000 times the size, or one-tenth, one-hundredth, one-thousandth the size of other integers (powers of 10)? 5. Can I use a number line to 10,000,000? 6. Can I compare and order any integers? 7. Can I round any integer? 8. Can I use negative numbers in real-life contexts?	*Numbers to ten million* *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*
3-7	Number Addition, Subtraction, Multiplication & Division	• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • Solve problems involving addition, subtraction, multiplication and division • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy • Identify common factors, common multiples and prime numbers • Identify common factors, common multiples and prime numbers • Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication • Perform mental calculations, including with mixed operations and large numbers • Divide numbers up to four digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context	1. Can I add and subtract integers with any number of digits? 2. Can I recognise factors and common factors? 3. Can I find common multiples of two or more numbers? 4. Can I explain the rules of divisibility? 5. Can I recall Prime numbers to 100? 6. Can I recognise and recall Square and Cube numbers? 7. Can I multiply up to a 4-digit number by a 2-digit number? 8. Can I solve problems with multiplication? 9. Can I use Short division? 10. Can I use factors in multiplication and divide by a 2-digit number using repeated division? 11. Can I use Long division? 12. Can I use Long division with remainders? 13. Can I solve division problems by looking at the most appropriate strategy for finding a solution? 14. Can I use the skills that I have developed so far in this block to solve problems in real-life contexts? 15. Can I use the order of priority for? operations in a calculation (BIDMAS)? 16. Can I use mental calculations and estimation?	*Order of operations (BIDMAS/BODMAS)* *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?* *Common factors, common multiples* *Factor pairs* *Composite numbers, prime number, prime factors, square number, cubed number* *Formal written method* *Multiplication facts (up to 12x12)* *Division facts* *Inverse* *Derive* *Product*

		• Divide numbers up to four digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context • Use their knowledge of the order of operations to carry out calculations involving the four operations	17. Can I use reason from known facts?	*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*
8-9	<u>Number</u> Fractions A	• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination • Compare and order fractions, including fractions > 1 • Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • Identify common factors, common multiples and prime numbers • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • Solve problems involving addition, subtraction, multiplication and division	1. Can I recognise an equivalent fraction and can I put equivalent fraction in their simplest form? 2. Can I use number lines to count forwards and backwards in fractions and to find equivalent fractions? 3. Can I compare and order fractions with the same denominator? 4. Can I compare and order fractions with the same numerator? 5. Can I add and subtract simple fractions? 6. Can I add and subtract any two fractions? 7. Can I add mixed numbers? 8. Can I subtract mixed numbers? 9. Can I apply the skills they have learnt in previous steps to solving problems in real-life contexts (multi-step problems)?	*Degree of accuracy* *Simplify* *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*
10-11	<u>Number</u> Fractions B	• Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams (Y5) • Multiply simple pairs of proper fractions, writing the answer in its simplest form • Divide proper fractions by whole numbers • Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • Solve problems involving addition, subtraction, multiplication and division • Associate a fraction with division and calculate decimal fraction equivalents	1. Can I multiply fractions by integers? 2. Can I multiply fractions by fractions? 3. Can I divide a fraction by an integer? 4. Can I divide any fraction by an integer? 5. Can I identify the appropriate operation(s) to use in a given situation involving questions with fractions? 6. Can I find a fraction of an amount? 7. Can I find the whole amount when given a fraction of it?	*Degree of accuracy* *Simplify* *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*
12	<u>Measurement</u> Converting Units	• Solve problems involving the calculation and conversion of units of	1. Can I read and write all metric measures for length, mass and capacity? 2. Can I convert metric measures?	*Volume* *Imperial units, metric units* *Convert*

		measure, using decimal notation up to 3 decimal places where appropriate • Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 decimal places	3. Can I use and apply my conversion skills to solve measurement problems in context (calculate with metric measures)? 4. Can I explain the relationship between miles and kilometres? 5. Can I explain the relationships between imperial and metric measures?	*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*
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
1-2	<u>Number</u> Ratio	• Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts • Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples	1. Can I explore the fact that the relationship between two numbers can be expressed additively or multiplicatively? 2. Can I use ratio language? Can I understand the idea of ratio representing a multiplicative relationship between two amounts?	*Ratio* *Proportion* *"For every….there are …."* *Part* *Whole* *Scale factor* *Enlargement*

		• Solve problems involving similar shapes where the scale factor is known or can be found	3. Can I understand and use the ratio symbol? 4. Can I explore the differences and similarities between ratios and fractions? 5. Can I apply my understanding of ratio and multiplicative relationships through scale diagrams? 6. Can I use scale factors to enlarge shapes and describe enlargements? 7. Can I explore similar shapes? 8. Can I solve problems involving ratio? 9. Can I explore different strategies for solving proportion problems? 10. Can I apply my knowledge of ratio and proportion to solve problems involving ingredients for recipes?	*Similar shapes* *Length* *Width* *Perimeter*
3-4	<u>Number</u> <u>Algebra</u>	• Use simple formulae • Generate and describe linear number sequences • Find pairs of numbers that satisfy an equation with two unknowns • Enumerate possibilities of combinations of two variables • Express missing number problems algebraically	1. Can interpret and solve function machines? Can I use my knowledge of operations and their inverses to find missing numbers? 2. Can interpret and solve function machines with two steps? 3. Can I form expressions? Can I form algebraic expressions using letters to represent numbers? 4. Can I find values of expressions by substituting numbers in place of letters? 5. Can I understand formulae using symbols? 6. Can I form equations from diagrams and word descriptions? 7. Can I solve 1-step equations? 8. Can I solve 2-step equations? 9. Can I find pairs of values? Can I explore equations with two unknown values, recognising that these cab have several possible solutions? 10. Can I solve problems with two unknowns when more than one piece of information is given, so there is only one possible solution?	*Linear number sequence* *Substitute* *Variables* *Symbol* *Known values*
5-6	<u>Number</u> Decimals	• Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places • Solve problems which require answers to be rounded to specified degrees of accuracy • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why? • Multiply 1-digit numbers with up to 2 decimal places by whole numbers • Use written division methods in cases where the answer has up to 2 decimal place	1. Can I understand place value within 1 (numbers with up to 3 decimals places)? 2. Can I understand place value (integers and decimals)? 3. Can I round decimals? Can I round numbers with up to 3 decimal places to the nearest integer and tenth (1 decimal place), as well as rounding to the nearest hundredth (2 decimal places)? 4. Can I add and subtract decimals? Can I revise the methods used for adding and subtracting numbers with different numbers of decimal places and numbers where exchanging between columns is needed? 5. Can I decimal numbers by 10, 100 and 1,000? 6. Can I divide decimal numbers by 10, 100 and 1,000?	*Degree of accuracy* *Simplify* *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*

		• Solve problems involving addition, subtraction, multiplication and division	7. Can I multiply decimals by integers? 8. Can I divide decimals by integers? 9. Can I multiply and divide decimals in context?	
7-8	<u>Number</u> Fractions, Decimals & Percentages	• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination • Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts • Compare and order fractions, including fractions >1 • Solve problems involving the calculation of percentages and the use of percentages for comparison	1. Can I find equivalent decimals and fractions? 2. Can I look at fractions as division? 3. Can I understand percentages? 4. Can I convert fractions to percentages? 5. Can I find equivalent fractions, decimals and percentages? 6. Can I order fractions, decimals and percentages? 7. Can I calculate percentage of an amount (one step)? 8. Can I calculate percentage of an amount (multi-step)? 9. Can I find the whole number from a given percentage (percentages – missing values)?	*Degree of accuracy* *Simplify* *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*
9-10	<u>Measurement</u> Area, Perimeter & Volume	• Recognise that shapes with the same areas can have different perimeters and vice versa • Recognise when it is possible to use formulae for area and volume of shapes • Calculate the area of parallelograms and triangles • Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units	1. Can I find the areas of shapes? 2. Can I find the area and perimeter of rectangles and rectilinear shapes? 3. Can I find the area of a triangle by counting squares? 4. Can I find the area of a right-angled triangles? 5. Can I use my knowledge of finding the area of right-angled triangle to find the area of any triangle? 6. Can I find the area of a parallelogram? 7. Can I calculate volume (counting cubes)? 8. Can I calculate volume using the formula?	*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	• Interpret and construct pie charts and line graphs and use these to solve problems • Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs (Year 4) • Calculate and interpret the mean as an average	1. Can I draw, read and interpret line graphs? 2. Can I understand dual bar charts? 3. Can I read and interpret pie charts? 4. Can I use my understanding of percentages, in the context of pie charts? 5. Can I draw pie charts? 6. Can I calculate and interpret the mean as an average?	*Mean* *Pie chart* *Construct*

Summer				
Weeks	Sequence and Theme	National Curriculum Links	Learning Questions (Small Steps)	Key Vocabulary
1-3	Geometry Shape Positon & Direction	• Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles • Draw given angles, and measure them in degrees (°) (Y5) • Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles (Y5) • Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius • Draw 2-D shapes using given dimensions and angles • Recognise, describe and build simple 3-D shapes, including making nets • Describe positions on the full coordinate grid (all four quadrants) • Draw and translate simple shapes on the coordinate plane, and reflect them in the axes	11. Can I measure and classify angles? 12. Can I calculate angles? 13. Scan I identify and calculate vertically opposite angles? 14. Can I identify and calculate angles in a triangle? 15. Can I identify and calculate angles in a triangle where there are special cases? 16. Can I identify and calculate angles in a triangle and missing angles? 17. Can I identify ad calculate angles in a quadrilateral? 18. Can I identify and calculate angles in polygons? 19. Can identify and calculate the features of a circle? 20. Can I draw shapes accurately? 21. Can I identify 3-D shapes, their properties and nets? 1. Can I explore first quadrant? 2. Can I read and plot points in four quadrants? 3. Can I solve problems with coordinates? 4. Can I translate points and shapes on a coordinate grid? 5. Can I create reflections across all four quadrants?	*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* *Vertically opposite (angles)* *Circumference, radius, diameter* *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* *Four quadrants* *(for coordinates)*
4-12	Consolidation, SATs Week, Themed projects (involving problem solving) and Transition Preparation			