

## Who is this document for?

This progression has been made to help both Class Teachers and the Maths Subject Lead. For Class Teachers this progression document allows teachers to clearly see what has already been covered in the previous year, the areas which are to be covered in the current year but also where learning continues into the next year. This progression document allows us to see how topics are developed over time and built on.

It also allows the Maths Subject Lead to know when topics are being taught and which resources may be needed across the school at a particular time.

## Revision of Maths Topics at Sound School

The White Rose Maths curriculum is a cumulative curriculum; so that once a topic is covered it is met many times again in other contexts. For example: place value is covered in Autumn 1 but it is then revisited within addition, subtraction, multiplication and division. The Flashback Four activities also aid in revisiting areas of learning.

As well as this, at Sound and District Primary School we have started Maths REVISIT sessions each half term. These are opportunities where teachers dedicate Maths sessions to recapping previous areas and skills taught. This ensures children are continually reviewing what they have learned and adding these to their long-term memory. However, teachers plan in dedicated time in most lessons to recap concepts and embed learning.

NB: In order for Year 6 and Year 2 to have fully covered the curriculum before SATs in May and before statutory Teacher Assessments are due, Sound \& District Primary School have tweaked the White Rose plan and therefore do not follow the timescales in its entirety.

Whole School Overview

|  | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EYFS | Getting to know you Match, sort \& compare <br> Talk about measure \& patterns It's me 1,2,3 <br> Circles \& triangles $1,2,3,4,5$ <br> Shapes with 4 sides |  | Alive in 5 <br> Mass \& capacity <br> Growing 6,7,8 <br> Length, height \& time <br> Building 9 \& 10 <br> Explore 3-D shapes |  | To 20 and beyond How many now? <br> Manipulate, compose \& decompose <br> Sharing \& grouping <br> Visualise, build \& map <br> Make connections <br> Consolidation |  |
| Year 1 | Place Value Addition and Subtraction | Addition and Subtraction Shape <br> Consolidation | Place value (within 20) <br> Addition and Subtraction (within 20) | Place Value (within 50) <br> Measurementlength, height, mass and volume | Multiplication and Division Fractions Position and Direction | Place Value (within 100) <br> Money <br> Time <br> Consolidation |
| Year 2 | Place Value <br> Addition and Subtraction | Shape <br> Money | Multiplication and Division Length \& height | Mass, capacity \& temperature Fractions | Time <br> Statistics <br> Position \& direction | Consolidation |
| Year 3/4 | Place Value | Area | Multiplication \& Division | Fractions Decimals | Money Time | Statistics |


|  | Addition \& Subtraction | Multiplication \& Division | Length \& Perimeter <br> Mass \& Capacity (Y3) |  | Shape | Position \& Direction |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year 4/5 | Place Value <br> Addition and subtraction | Multiplication and division <br> Fractions <br> Consolidation | Multiplication and division <br> Fractions | Decimals \& percentages <br> Perimeter \& area Statistics Consolidation | Shape <br> Position and direction Decimals | Negative numbers <br> Converting units (inc money \& time Y4) Volume |
| Year 6 | Place Value <br> Four Operationsaddition, subtraction, multiplication \& division | Fractions <br> Decimals and percentages | Ratio <br> Converting units <br> Algebra | Perimeter Area Volume Statistics | Properties of shape <br> Position and direction | Investigations and consolidation |
|  |  |  | $3$ |  |  |  |

## Mathematical Vocabulary Progression EYFS- Year 6

- Using correct mathematical language is crucial for thinking, learning, and communicating mathematically.
- At Sound and District Primary School we encourage children to explain what they are doing and why they are doing it.
- When children are first introduced to new vocabulary, it is not essential that children remember these words immediately. Rather this modelling will help them become familiar with the terms, gradually beginning to use them accurately and with greater understanding.


## EYFS-Reception- Diamond Class-Vocabulary

| Number | number, zero 1-20 count on/back lots, more, few, fewer, compare, sort, order, before, after, less, many, most, the same as, ones, pair add, more, altogether, takeaway, number line, one more, one less, equals, equal to, double, half, how many? make, total times, counting in ones, twos, fives, tens, lots of, groups of, once, twice, five times sharing, share, set, group, left, left over |
| :---: | :---: |
| Numerical Patterns | listen, join in, say, think, imagine, remember, start from, start with, start at, look at, point to, put, place, fit, change, split, carry on, what comes next? find, choose, collect, use, make, build, tell me, pick out, talk about, explain, show me read, write, finish, copy, colour, tick, cross, draw, draw a line between, join (up), ring, arrow, cost, count, work out, answer, fill in, check, in order, every, each. |
| Shape, space, and measure | days of the week, 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, fast, slow, old, new, watch, clock, always, never, first, size, weight, capacity, time, money long, longer, longest, short, shorter, shortest, heavy, light, empty, full, tall, small, large, thick, thin, low, deep, ruler, far, near, holds, container, weigh, weighs coin, pound, pence, cost, money, penny, buy, sell, position, distance, after, before, in, on, inside, under, on top of, behind, next to, above, below, top, bottom, side, outside, around, underneath, in front, front, back, before, middle, up, down, forwards, backwards, across, close, far, along, to, from, slide, roll, turn, stretch, bend, move. shape, group, sort, round, flat, straight, make, build, draw. square, circle, triangle, cube, cuboid, sphere double/half/ whole |

## Year 1-Emerald Class-Vocabulary

(+ repetition of EYFS vocabulary)

## Number and

Place Value
Addition \& Subtraction

Multiplication \& Division

Measure (Time and Money)

Measure (Length, Mass \& Capacity)
Geometry
Fractions
General Problem
Solving

20-100 count (on/up/to/from/ down), least, fewest, smallest, greater, lesser, equal to, odd, even, units, tens, ten more/less, digit, numeral, figure(s), compare (In) order/a different order, size, value, between, halfway between above, below.
number bonds, addition, plus, sum, greater, near double, halve, is the same as, (including equals sign), how many more to make...? how, many more is...than...? how much more is..? subtract, minus, how many fewer is...than..?
odd, even, count in twos, fives, tens, (forwards from/backwards from), how many times?, multiple of, multiply, multiply by repeated addition, array, row, column, halve, share equally, group in pairs, threes, etc. equal groups of, divide, divided by
Seasons: Spring, Summer, Autumn, Winter, quicker, quickest, quickly, faster, fastest, slower, slowest, slowly, older, oldest, newer, newest, takes longer, takes less time, hour, o clock, half past, hands, how long ago? how long will it be to...? how long will it take to...? how often? often, sometimes, usually, once, twice, second, third etc, estimate, close to, about the same as, just over/under, too many/few, not enough, enough. spend, spent, change, dear(er), costs more, costs less, cheaper, costs the same as, how much?
size, bigger, larger, length, width, height, depth, taller, tallest, high, higher, highest, wide, narrow, shallow, close, Metre, metre stick. half full, balances, heavier, heaviest, lighter, lightest, scales.
over, beside, opposite, apart, between, edge, centre, corner, direction, journey, left, right, sideways, near, through, towards, away from, movement, whole turn, half turn.
whole, equal parts, four equal parts, one half, two halves, a quarter, two quarters.
arrange, rearrange, change over, separate, continue, repeat, describe, explain, record, trace, complete, shade, same number(s)/different number(s)/missing number(s) number facts, same way, different way, best way, another way, in a different order, not all.

## Year 2- Ruby Class-Vocabulary

(+ repetition of Year 1 vocabulary)
Number and $\quad$ numbers to one hundred, hundreds, partition, recombine, hundred more/less, represents, exchange,
Place Value
Addition \&
Subtraction
Multiplication \&
Division
Measure
Statistics
Geometry

Fractions
number bonds, addition, plus, sum, greater, inverse, near double, halve, is the same as, (including equals sign), difference between, how many more to make...? how, many more is...than...? how much more is..? subtract, minus, how many fewer is...than..?
count in multiplies of $3,4,5$ and 6 , recall times table facts for $1-6$ times tables. sharing/groups of
quarter past/to, fortnight temperature (degrees) $\mathrm{m} / \mathrm{cm}, \mathrm{g} / \mathrm{kg}, \mathrm{ml} / \mathrm{l}$ pounds/pence/change/card/notes/coins
count, tally, sort, vote, graph, block graph, pictogram, represent group, set, list, table label, title most popular, most common, least popular, least common.
rotation, clockwise, anticlockwise, straight line, ninety-degree turn, right angle.
smaller, symmetrical, line of symmetry, fold, match, mirror line, reflection, pattern, repeating pattern, vertices, vertex. pentagon, hexagon, octagon, circular, triangular, right angle.
three quarters, one third, a third, equivalence, equivalent.
predict, describe the pattern, describe the rule, find, find all, find different, investigate.
General Problem Solving

## Year 3- Opal Class-Vocabulary

(+ repetition of Year 2 vocabulary)

| Number and <br> Place Value | numbers to 1,000 |
| :--- | :--- |
|  <br> Subtraction | column addition and subtraction- regrouping, borrowing, carrying, making another ten |
|  <br> Division | count in multiples of 4, 8, 7, 9 and 11 |
| Measure | leap year twelve-hour/24- hour clock, am/pm, century roman numerals I-XIl mm |
| Statistics | greater/less than 90 degrees orientation (same orientation, different orientation), north, south, east, <br> west <br> horizontal, vertical, perpendicular, and parallel lines. perimeter hemi-sphere, prism, semi-circle |
| Geometry | numerator, denominator. unit fraction, non-unit fraction. compare and order. Tenths |
| Fractions |  |

## Year 4- Topaz Class- Vocabulary

(+ repetition of Year 3 vocabulary)

| Number and <br> Place Value | tenths, hundredths, numeral decimal places round (to nearest) thousand more/less negative integers <br> count through zero roman numerals I to C |
| :--- | :--- |
|  <br> Division | count in multiples of 6, 7, 9, 12. inverse derive division facts |
| Measure | convert, noon |
| Statistics | continuous data line graphs |
| Geometry | co-ordinates translation, translate, quadrant x-axis, y-axis. <br> area, net rectilinear adjacent quadrilaterals: (rhombus, parallelogram, trapezium, trapezoid, kite). <br> heptagon, polygon, tetrahedron, polyhedron, cylindrical triangles (isosceles, scalene) right angle, <br> acute angle, obtuse angles |
| Fractions | equivalent fractions and decimals, decimal point, decimal fraction hundredths |

## Year 5- Topaz Class- Vocabulary

(+ repetition of Year 4 vocabulary)

| Number and <br> Place Value | powers of 10 numbers to $1,000,000$ roman numerals I to M |
| :--- | :--- |
|  <br> Division | count in multiples for all tables up to $12 \times 12$ factor pairs composite numbers, prime numbers, prime <br> factors, square number, cubed number |
| Measure | volume, concave, convex breadth imperial units/metric units inches, pounds, pints, currency, ounce, <br> tonne etc |
| Statistics | average |
| Geometry | reflex angles dimensions regular/irregular polygons, octahedron |
| Fractions | proper fractions, improper fractions, mixed numbers percentage |

## Year 6- Onyx Class- Vocabulary

(+ repetition of Year 5 vocabulary)

| Number and <br> Place Value | numbers to $10,000,000$ |
| :--- | :--- |
|  <br> Subtraction/ <br>  <br> Division | order of operations |
| Algebra, Ratio \& operations common factors, common multiples, factorise <br> Proportion | algebra, algebraically express ratio proportion linear number of sequence substitute, variables, <br> symbol, known values |
| Statistics | mean, median, range pie chart construct |
| Geometry | four quadrants <br> circumference, radius, diameter, arc, congruent, dodecahedron |
| Fractions | degree of accuracy <br> simplify |



## Reception Class Maths Progression Information

## EYFS

- Reading to children is an essential part of their development. Below is a selection of the books used to develop Maths understanding in our reception class.



## Reception Progression of Knowledge

## Comparison

| Development matters |  | Birth to 5 matters |  |
| :---: | :---: | :---: | :---: |
| 3 and 4 year olds | Reception | Range 5 | Range 6 |

## Counting

| Development matters |  | Birth to 5 matters |  |
| :---: | :---: | :---: | :---: |
| 3 and 4 year olds | Reception | Range 5 | Range 6 |

## Cardinality

## White Rose <br> M. THS

| Development matters |  | Birth to 5 matters |  |
| :---: | :---: | :---: | :---: |
| 3 and 4 year olds | Reception | Range 5 | Range 6 |
|  | Subitise <br> Link the number symbol (numeral) with its cardina numbervalue |  | Engoges in subitising numbers to Counts out tup to 10 objects from alorgee group <br> Matches the numeral with a many there are (up to 10) |
| . Atum 5 | Autumn 3, Autumn 5 Spring 1, Spring 3, Spring 5 Summer 6 |  |  |

## Composition

| Development matters |  | Birth to 5 matters |  |
| :---: | :---: | :---: | :---: |
| 3 and 4 year olds | Reception | Range 5 | Range 6 |
| - Solve real world mathematical problems with numbers up to 5 . | - Understand the oone more than/one less than' relationship between consecutive numbers. <br> - Explore the composition of numbers to 10 . <br> - Automatically recall number bonds for numbers 0-5 and some to 10 . | - Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers <br> - Beginning to use understanding of number to solve practical problems in play and meaningful activities <br> - Beginning to recognise that each counting number is one more than the one before <br> - Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same | - Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects <br> - Begins to conceptually subitise larger numbers by subitising smaller groups within the number, e.g. sees six raisins on a plate as three and three <br> - In practical activities, adds one and subtracts one with numbers to 10 <br> - Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and " + " or "_" |
| Autumn 5 Spring 1 | Autumn 3, Autumn 5 Spring 1, Spring 3, Spring 5 Summer 2, Summer 4, Summer 6 | Autumn 3, Autumn 5 Spring 1 | Autumn 5 <br> Spring 1, Spring 3, Spring 5 <br> Summer 2, Summer 4, Summer 6 |

## Spatial awareness

| Development matters |  | Birth to 5 matters |  |
| :---: | :---: | :---: | :---: |
| 3 and 4 year olds | Reception | Range 5 | Range 6 |
| - Compare quantities using language: 'more than', 'fewer than', <br> - Understand position through words alone - for example, "The bag is under the table," - with no pointing. <br> - Describe a familiar route. <br> - Discuss routes and locations, using words like 'in front of and 'behind'. | - Select, rotate and manipulate shapes in order to develop spatial reasoning skills. | - Responds to and uses language of position and direction <br> - Predicts, moves and rotates objects to fit the space or create the shape they would like | - Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints <br> - Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning) <br> - May enjoy making simple maps of familiar and imaginative environments, with landmarks |
| Autumn 2, Autumn 4 Spring 3 Summer 5 | Spring 6 <br> Summer 3 | Autumn 4 <br> Spring 6 <br> Summer 3 | Spring 6 <br> Summer 3, Summer 5 |

## Shape

| Development matters |  | Birth to 5 matters |  |
| :---: | :---: | :---: | :---: |
| 3 and 4 year olds | Reception | Range 5 | Range 6 |
| - Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. <br> - Select shapes appropriately: flat surfaces for building, a triangular prisms for a roof, etc. <br> - Combine shapes to make new ones - an arch, a bigger triangle, etc. | - Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. | - Chooses items based on their shape which are appropriate for the child's purpose <br> - Responds to both informal language and common shape names <br> - Shows awareness of shape similarities and differences between objects <br> - Enjoys partitioning and combining shapes to make new shapes with 2D and 3D shapes <br> - Attempts to create arches and enclosures when building, using trial and improvement to select blocks | - Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes. <br> - Enjoys composing and decomposing shapes, learning which shapes combine to make other shapes <br> - Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build. |
| Autumn 4, Autumn 6 Spring 6 | Autumn 6 Spring 6 Summer 3 | Autumn 6 Spring 6 | Autumn 4 Spring 6 |

## Pattern

| Development matters |  | Birth to 5 matters |  |
| :--- | :--- | :--- | :--- |
| 3 and 4 year olds | Reception | Range 5 | R |

## Measure

| Development matters |  | Birth to 5 matters |  |
| :---: | :---: | :---: | :---: |
| 3 and 4 year olds | Reception | Range 5 | Range 6 |
| - Make comparisons between objects relating to size, length, weight and capacity. <br> - Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' | - Compare length, weight and capacity. | - In meaningful contexts, finds the longer or shorter, heavier or lighter and more/less full of two items <br> - Recalls a sequence of events in everyday life and stories. | - Enjoys tackling problems involving prediction and discussion of comparisons of length, weight or capacity. paying attention to fairness and accuracy <br> - Becomes familiar with measuring tools in everyday experiences and play <br> - Is increasingly able to order and sequence events using everyday language related to time <br> - Beginning to experience measuring time with timers and calendars |
| Autumn 2 <br> Spring 2, Spring 4 Summer 5 | Spring 2, Spring 4 Summer 6 | Autumn 2, Autumn 6 Spring 4 | Autumn 6 <br> Spring 2, Spring 4 Summer 6 |



Place Value

## Place value: Count

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number <br> - Count numbers to 100 in numerals; count in multiples of twos, fives and tens | - count in steps of 2,3 , and 5 from 0 , and in tens from any number, forward and backward | - count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number | - count in multiples of $6,7,9,25$ and 1000 <br> - count backwards through zero to include negative numbers | - count forwards or backwards in steps of powers of 10 for any given number up to 1 000000 <br> - count forwards and backwards with positive and negative whole numbers, including through zero |  |
| Autumn 1 <br> Spring 1 <br> Spring 3 <br> Summer 4 | Autumn 1 | Autumn 1 Autumn 3 | Autumn 1 Autumn 4 | Autumn 1 <br> Summer 4 |  |
| Note - In the WRM schemes, negative numbers are introduced in Year 5 |  |  |  |  |  |

## Place value: Represent

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - identify and represent numbers using objects and pictorial representations <br> - read and write numbers to 100 in numerals <br> - read and write numbers from 1 to 20 in numerals and words | - read and write numbers to at least 100 in numerals and in words <br> - identify, represent and estimate numbers using different representations, including the number line | - identify, represent and estimate numbers using different representations <br> - read and write numbers up to 1000 in numerals and in words | - identify, represent and estimate numbers using different representations <br> - 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 | - read, write, (order and compare) numbers to at least 1000000 and determine the value of each digit <br> - read Roman numerals to 1000 $(\mathrm{M})$ and recognise years written in Roman numerals | - read, write, (order and compare) numbers up to 10 000000 and determine the value of each digit |
| Autumn 1 <br> Spring 1 Spring 3 Summer 4 | Autumn 1 | Autumn 1 | Autumn 1 | Autumn 1 | Autumn 1 |

## Place value: Use and compare

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - given a number, identify one more and one less | - recognise the place value of each digit in a two-digit number (tens, ones) <br> - compare and order numbers from 0 up to 100; use , $>$ and = signs | - recognise the place value of each digit in a three-digit number (hundreds, tens, ones) <br> - compare and order numbers up to 1000 | - find 1000 more or less than a given number <br> - recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) <br> - order and compare numbers beyond 1000 | - (read, write) order and compare numbers to at least 1000000 and determine the value of each digit | - (read, write), order and compare numbers up to 10000000 and determine the value of each digit |
|  | Autumn 1 | Autumn 1 | Autumn 1 | Autumn 1 | Autumn 1 |

## Place value: Problems/Rounding

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | - use place value and number facts to solve problems | - solve number problems and practical problems involving these ideas | - round any number to the nearest 10,100 or 1000 <br> - solve number and practical problems that involve all of the above and with increasingly large positive numbers | - interpret negative numbers in context <br> - round any number up to 1 000000 to the nearest 10, 100, 1000,10 100000 <br> - solve number problems and practical problems that involve all of the above | - round any whole number to a required degree of accuracy <br> - use negative numbers in context, and calculate intervals across zero <br> - solve number and practical problems that involve all of the above |
|  | Autumn 1 | Autumn 1 | Autumn 1 | Autumn 1 | Autumn 1 |

## Addition \& subtraction: Calculations

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - add and subtract one-digit and twodigit numbers to 20 , including zero | - add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <br> - a two-digit <br> number and ones <br> - a two-digit number and tens <br> - two two-digit numbers <br> > adding three onedigit numbers | - add and subtract numbers mentally, including: <br> > a three-digit <br> number and ones <br> a three-digit number and tens <br> > a three-digit number and hundreds <br> - add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction subtraction | - add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate | - add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) add and subtract numbers mentally large numbers | - perform mental calculations, including with mixed operations and large use their knowledge of the order of operations to carry out calculations involving the four operations |
| Autumn 2 Spring 2 | Autumn 2 | Autumn 2 | Autumn 2 | Autumn 2 | Autumn 2 |

## Addition \& subtraction: Problems

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7=$ $\square$ -9 | - solve problems with addition and subtraction: <br> using concrete objects and pictorial representations, including those involving numbers, quantities and measures <br> - applying their increasing knowledge of mental and written methods | - solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction | - solve addition and subtraction twostep problems in contexts, deciding which operations and methods to use and why | - solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why <br> - solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign | - solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why |
| Autumn 2 <br> Spring 2 | Autumn 2 | Autumn 2 | Autumn 2 | Autumn 2 | Autumn 2 |



## Multiplication \& division: Recall/Use

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | - recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers <br> - show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot | - recall and use multiplication and division facts for the 3,4 and 8 multiplication tables | - recall <br> multiplication and division facts for multiplication tables up to $12 \times$ 12 <br> - 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 <br> - recognise and use factor pairs and commutativity in mental calculations | - identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers <br> - know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers <br> - establish whether a number up to 100 is prime and recall prime numbers up to 19 <br> - recognise and use square numbers and cube numbers, and the notation for squared ( ${ }^{2}$ ) and cubed ( ${ }^{3}$ ) | - identify common factors, common multiples and prime numbers <br> - use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy |
|  | Spring 2 | Autumn 3 Spring 1 | Autumn 4 Spring 1 | Autumn 3 | Autumn 2 |



## Multiplication \& division: Calculations

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | - calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication ( $\times$ ), division ( $\div$ ) and equals (=) signs | - write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods | - multiply two-digit and three-digit numbers by a one-digit number using formal written layout | - multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for twodigit numbers <br> - multiply and divide numbers mentally drawing upon known facts <br> - divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context <br> - multiply and divide whole numbers and those involving decimals by 10,100 and 1000 | - multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication divide numbers up to 4 digits by a two-digit whole number using method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context <br> - divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context <br> - perform mental calculations, including with mixed operations and large numbers |
|  | Spring 2 | Autumn 3 Spring 1 | Spring 1 | Autumn 3 Spring 1 | Autumn 2 |

## Multiplication and Division

## Multiplication \& division: Problems

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with teacher | - solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts | - solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to $m$ objects | - 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 | - solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes <br> - solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates | - solve problems involving addition, subtraction, multiplication and division |
| Summer 1 | Spring 2 | Spring 1 | Spring 1 | Autumn 3 Spring 1 | Autumn 2 |

## Multiplication and Division

## Multiplication \& division: Combined

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | - solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign | - use their knowledge of the order of operations to carry out calculations involving the four operations |
|  |  |  |  | Spring 1 | Autumn 2 |




## Fractions: Recognise and write

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - recognise, find and name a half as one of two equal parts of an object, shape or quantity <br> - recognise, find and name a quarter as one of four equal parts of an object, shape or quantity | - recognise, find, name and write fractions $\frac{1}{3}, \frac{1}{4}, \frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity | - count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 <br> - recognise, find and write fractions of a discrete set of objects: unit fractions and nonunit fractions with small denominators <br> - recognise and use fractions as numbers: unit fractions and nonunit fractions with small denominators | - count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. | - identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths <br> - recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements $>1$ as a mixed number [for example, $\frac{2}{5}+$ $\left.\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}\right]$ |  |
| Summer 2 | Summer 1 | Spring 3 | Spring 4 Summer 1 | Autumn 4 |  |

Fractions, Decimals and Percentages

## Fractions: Compare

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | - Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ | - recognise and show, using diagrams, equivalent fractions with small denominators <br> - compare and order unit fractions, and fractions with the same denominators | - recognise and show, using diagrams, families of common equivalent fractions | - compare and order fractions whose denominators are all multiples of the same number | - use common factors to simplify fractions; use common multiples to express fractions in the same denomination <br> - compare and order fractions, including fractions > 1 |
|  | Summer 1 | Spring 3 | Spring 3 | Autumn 4 | Autumn 3 |

## Fractions: Calculations

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | - write simple fractions for example, $\frac{1}{2}$ of $6=$ 3 | - add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7}+$ $\frac{1}{7}=\frac{6}{7}$ | $\begin{aligned} & \text { - add and subtract } \\ & \text { fractions with the } \\ & \text { same } \\ & \text { denominator } \end{aligned}$ | - add and subtract fractions with the same <br> denominator and denominators that are multiples of the same number <br> - multiply proper fractions and mixed numbers by whole numbers, supported by diagrams | - add and subtrac fractions with different denominators and mixed numbers, using the concept of equivalent <br> multiply simple pairs of proper fractions, writing the answer in its simplest form [for divide proper fractions by whole numbers [for example $\frac{1}{3} \div 2=\frac{1}{6}$ ] |
|  | Summer 1 | Summer 1 | Spring 3 | Autumn 4 Spring 2 | Autumn 3 <br> Autumn 4 |

Fractions, Decimals and Percentages

## Fractions: Solve problems

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | -solve problems <br> that involve all of <br> the above <br> -solve problems <br> involving <br> increasingly <br> harder fractions <br> to calculate <br> quantities, and <br> fractions to divide <br> quantities, <br> including non-unit <br> fractions where <br> the answer is a <br> whole number |  |  |  |



## Decimals: Recognise, write, compare

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | - recognise and write decimal equivalents of any number of tenths or hundredths <br> - recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$ <br> - round decimals with one decimal place to the nearest whole number <br> - compare numbers with the same number of decimal places up to two decimal places | - read and write decimal numbers as fractions [for example, $0.71=$ $\left.\frac{71}{100}\right]$ <br> - recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents <br> - round decimals with two decimal places to the nearest whole number and to one decimal place <br> - read, write, order and compare numbers with up to three decimal places | - identify the value of each digit in numbers given to three decimal places |
|  |  |  | Spring 4 <br> Summer 1 | Spring 3 <br> Summer 3 | Spring 3 |



## Fractions, decimals and percentages

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
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|  |  |  | $\begin{gathered} \text { Sping } \\ \text { Spor } \\ \text { Spunger } \end{gathered}$ | Spring 3 | ${ }_{\substack{\text { Spring } \\ \text { Sping }}}^{\substack{\text { a }}}$ |

## Ratio and Proportion

## Ratio and proportion

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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## Algebra

## Algebra

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7=\square-9$ | - recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems | - solve problems, including missing number problems |  |  | - use simple formulae <br> - generate and describe linear number sequences <br> - express missing number problems algebraically <br> - find pairs of numbers that satisfy an equation with two unknowns <br> - enumerate possibilities of combinations of two variables |
|  |  |  |  |  | Spring 2 |

Note - although formal algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the 'missing number' objectives from Y1/2/3

Measurement

## Using measures

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - compare, describe and solve practical problems for: <br> - lengths and heights <br> > mass/weight <br> > capacity and volume <br> - time <br> - measure and begin to record the following: lengths and heights <br> > mass/weight <br> > capacity and volume <br> $>$ time (hours, minutes, seconds) | - choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass (kg/g); temperature $\left({ }^{\circ} \mathrm{C}\right)$; capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels <br> - compare and order lengths, mass, volume/capacity and record the results using $>$, < and $=$ | - measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity (l/ml) | - Convert between different units of measure [for example, kilometre to metre; hour to minute] <br> - estimate, compare and calculate different measures | - convert between different units of metric measure <br> - understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints <br> - use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling | - solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 d.p. where appropriate <br> - 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 d.p. <br> - convert between miles and kilometres |
| Spring 4 <br> Spring 5 <br> Summer 6 | Spring 3 <br> Spring 4 | Spring 2 Spring 4 | Spring 2 Summer 3 | Spring 4 <br> Summer 5 <br> Summer 6 | Autumn 5 |

## Measurement

## Money

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - recognise and know the value of different denominations of coins and notes | - recognise and use symbols for pounds ( $£$ ) and pence (p); combine amounts to make a particular value <br> - find different combinations of coins that equal the same amounts of money <br> - solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change | - add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts | - estimate, compare and calculate different measures, including money in pounds and pence | - use all four operations to solve problems involving measure [for example, money] |  |
| Summer 5 | Spring 1 | Summer 2 | Summer 2 | Summer 3 |  |

## Measurement

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] <br> - recognise and use language relating to dates, including days of the week, weeks, months and years <br> - tell the time to the hour and half past the hour and draw the hands on a clock face to show these times | - compare and sequence intervals of time <br> - tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times <br> - know the number of minutes in an hour and the number of hours in a day | - tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12hour and 24 -hour clocks <br> - estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight <br> - know the number of seconds in a minute and the number of days in each month, year and leap year <br> - compare durations of events [for example to calculate the time taken by particular events or tasks] | - read, write and convert time between analogue and digital 12and 24 -hour clocks <br> - solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days | - solve problems involving converting between units of time | - use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa <br> Note - In the WRM schemes, time conversions are covered in Y5; the Y6 block concentrates on metric units. |
| Summer 6 | Summer 2 | Summer 3 | Summer 3 | Summer 5 | Autumn 5 |

Measurement

## Perimeter, area, volume

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | - measure the perimeter of simple 2-D shapes | - measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres <br> - find the area of rectilinear shapes by counting squares | - measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres <br> - calculate and compare the area of rectangles (including squares) and including using standard units, square centimetres ( $\mathrm{cm}^{2}$ ) and square metres ( $\mathrm{m}^{2}$ ) and estimate the area of irregular shapes <br> - estimate volume [for example, using blocks to build cuboids] and capacity [for example, using water] | - recognise that shapes with the same areas can have different perimeters and vice versa <br> - recognise when it is possible to use formulae for area and volume of shapes <br> - calculate the area of parallelograms and triangles <br> - calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres ( $\mathrm{cm}^{3}$ ) and cubic metres $\left(\mathrm{m}^{3}\right)$, and extending to other units |
|  |  | Spring 2 | Autumn 3 Spring 2 | Spring 4 <br> Summer 6 | Spring 5 |

## Geometry

## 2-D shapes

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - recognise and name common 2D shapes [for example, rectangles (including squares), circles and triangles] | - identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line <br> - identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] <br> - compare and sort common 2-D shapes and everyday objects | - draw 2-D shapes | - compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes <br> - identify lines of symmetry in 2-D shapes presented in different orientations | - distinguish between regular and irregular polygons based on reasoning about equal sides and angles. <br> - use the properties of rectangles to deduce related facts and find missing lengths and angles | - draw 2-D shapes using given dimensions and angles <br> - compare and classify geometric shapes based on their properties and sizes <br> - illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius |
| Autumn 3 | Autumn 3 | Summer 4 | Summer 4 | Summer 1 | Summer 1 |

## Geometry

## 3-D shapes

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| - recognise and <br> name common 3- <br> D shapes [for <br> example, cuboids <br> (including cubes), <br> pyramids and <br> spheres] | - recognise and <br> name common 3- <br> D shapes [for <br> example, cuboids <br> (including cubes), <br> pyramids and <br> spheres] <br> compare and sort <br> common 3-D <br> shapes and <br> everyday objects | - make 3-D shapes <br> using modelling <br> materials; <br> recognise 3-D <br> shapes in <br> different <br> orientations and <br> describe them |  | - identify 3-D <br> shapes, including <br> cubes and other <br> cuboids, from 2-D <br> representations | -recognise, <br> describe and build <br> simple 3-D <br> shapes, including <br> making nets |
| Autumn 3 | Autumn 3 | Summer 4 |  | Summer 1 | Summer 1 |



## Angles and lines

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | - recognise angles as a property of shape or a description of a turn <br> - identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle <br> - identify horizontal and vertical lines and pairs of perpendicular and parallel lines | - identify acute and obtuse angles and compare and order angles up to two right angles by size <br> - identify lines of symmetry in 2-D shapes presented in different orientations <br> complete a simple symmetric figure with respect to a specific line of symmetry | - know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles <br> - draw given angles, and measure them in degrees <br> - identify: <br> > angles at a point and one whole turn (total $360^{\circ}$ ) <br> > angles at a point on a straight line and $\frac{1}{2}$ a turn (total $180^{\circ}$ ) <br> other multiples of $90^{\circ}$ | - find unknown angles in any triangles, quadrilaterals, and regular polygons <br> - recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles |
|  |  | Summer 4 | Summer 4 | Summer 2 | Summer 1 |

## Geometry

## Position and direction

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - describe position, direction and movement, including whole, half, quarter and three-quarter turns | - order and arrange combinations of mathematical objects in patterns and sequences <br> - use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise) |  | - describe positions on a 2-D grid as coordinates in the first quadrant <br> - describe movements between positions as translations of a given unit to the left/right and up/down <br> - plot specified points and draw sides to complete a given polygon | - 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 | - describe positions on the full coordinate grid (all four quadrants) <br> - draw and translate simple shapes on the coordinate plane, and reflect them in the axes |
| Summer 3 | Summer 4 |  | Summer 6 | Summer 2 | Summer 2 |

## Statistics

## Present and interpret data

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | - interpret and <br> construct simple <br> pictograms, tally <br> charts, block <br> diagrams and <br> simple tables | - interpret and <br> present data <br> using bar charts, <br> pictograms and <br> tables | - interpret and <br> present discrete <br> and continuous <br> data using <br> appropriate <br> graphical <br> methods, <br> including bar <br> charts and time <br> graphs | -complete, read <br> and interpret <br> information in <br> tables, including <br> timetables | • interpret and <br> construct pie <br> charts and line <br> graphs and use <br> these to solve <br> problems |

## Statistics

## Solve statistical problems

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | - ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity <br> - ask and answer questions about totalling and comparing categorical data | - solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables | - solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs | - solve comparison, sum and difference problems using information presented in a line graph | - calculate and interpret the mean as an average |
|  | Summer 3 | Summer 5 | Summer 5 | Spring 5 | Spring 6 |




# Sound and District Primary School <br> Times Tables Progression 

## EYFS-Reception

Throughout the year children will count reliably with numbers 1-20.
Children will begin to count in 2 's, 5 's and 10 's.

## Year 1

Autumn 1-1 x table (no division facts)
Autumn 2- $10 \times$ table to 6 (no division facts)
Spring 1-10x table to 12 (include simple division facts)
Spring 2- $2 x$ tables to 6 (include simple division facts)
Summer 1-2 x tables to 12 (include simple division facts)
Summer 2- Recap all previously taught tables rules and apply these to problem solving contexts.

## Year 2

Autumn 1-Recap previously taught tables-x10 \& x2 (include division facts).
Autumn 2- $5 x$ table to 12 (include division facts)
Spring 1-(SATS) Recap all previously taught tables and apply these to problem solving contexts.

Spring 2- (SATS) Recap all previously taught tables and apply these to problem solving contexts.

Summer 1- (SATS) Recap all previously taught tables and apply these to problem solving contexts.
Summer 2- $3 x$ and $4 x$ tables to 12 (include division facts)

## Year 3

Autumn 1-Recap all previously taught tables and apply to problem solving contexts (include division facts)-x2,5,10,3 \& 4.

Autumn 2- Consolidate above.
Spring 1- Begin $x 6$ and $x 8$ times tables.
Spring 2- Consolidate above including division facts.
Summer 1-11x tables to 12 (include division facts)
Summer 2- Recap all previously taught tables rules and apply these to problem solving contexts.

## Year 4

## Autumn 1- Recap Year 3

Autumn 2- x7, x9 \& $12 x$ table to 12 (include division facts)
Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1 ; dividing by 1 ; multiplying together 3 numbers.
Spring 1-Revisit ALL times tables
Recognise and use factor pairs and commutativity in mental calculations. Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.
Spring 2- Recall multiplication and division facts for all multiplication tables up to $12 \times 12$.

## Summer term-

Revisit division facts.
Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

## Year 5

Recall multiplication and division facts for multiplication tables up to $\mathbf{1 2 \times 1 2}$
Autumn 1-Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers.
Autumn 2- 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.
Spring 1-Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.

Multiply and divide numbers mentally, drawing upon known facts.
Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.
Spring 2- Multiply and divide whole numbers and those involving decimals by 10,100 and 1,000.
Recognise and use square numbers and cube numbers, and the notation for squared $\left(^{2}\right)$ and cubed ( ${ }^{3}$ )
Summer term- Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares, and cubes, scaling by simple fractions and problems involving simple rate.

## Year 6

Recall multiplication and division facts for multiplication tables up to $\mathbf{1 2 \times 1 2}$
Autumn 1 - Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.
Autumn 2 - Divide numbers up to 4 digits by a two-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.
Spring 1 - Perform mental calculations, including with mixed operations and large numbers.
Spring 2 - Identify common factors, common multiples, and prime numbers. Summer 1 - Solve problems involving addition, subtraction, multiplication, and division.

Summer 2 - Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

