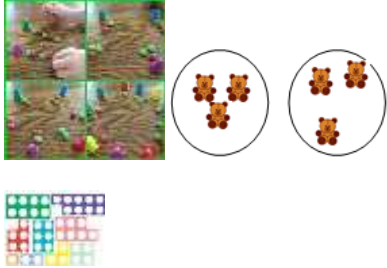

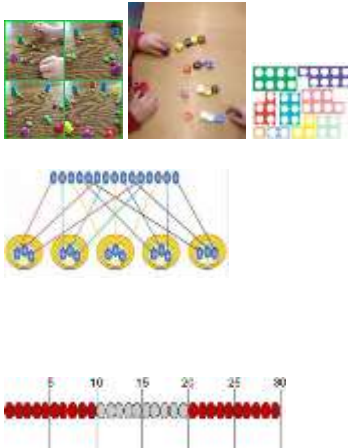

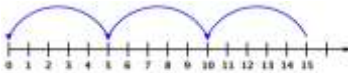

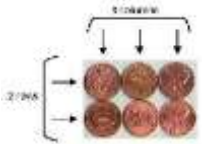
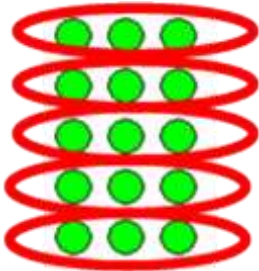

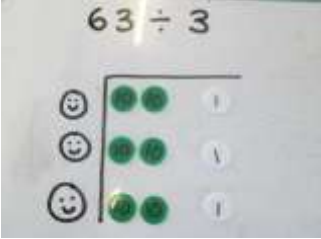
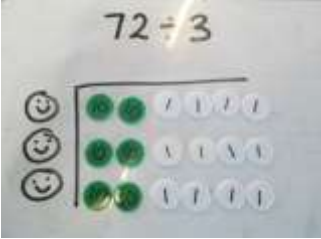
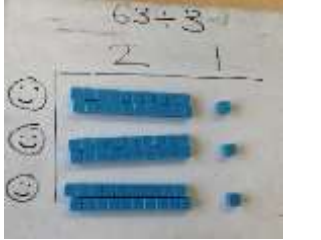
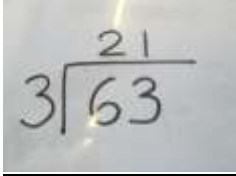
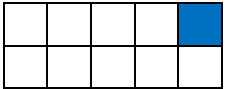



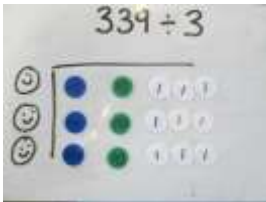

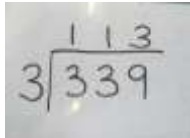
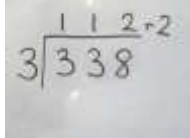
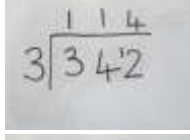
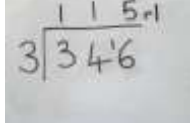
Simonside Primary School - Progression in Division


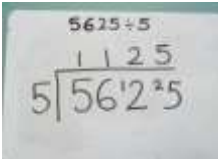
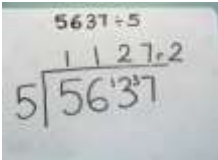
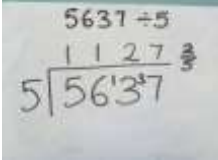
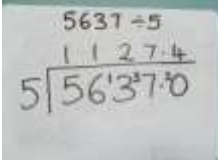
| Year group | Foundations | Rapid Recall | Mental calculation | Objective | Method | Practical methods | Pictorial/written methods | Vocabulary |
|------------|-------------|----------------------------|--------------------|---|---|--|---|---|
| EYFS | | Chanting of counting in 2s | | <p>Division as sharing - one for me, one for you...</p> <p>Division as grouping - how many groups of 3 can we make?</p> | Practical and recorded using ICT (eg digital photos/ pictures on IWB) | <p>Concrete materials - counters, teddies, Numicon etc... Real life situations - sharing out the milk, fruit, pencils.</p>  | <p>Drawings of problems</p> <p>Begin to record using marks they can explain</p>  | <p>Group, pairs, left over, share, equal, half/halve, same, count out, share out, left, left over</p> |


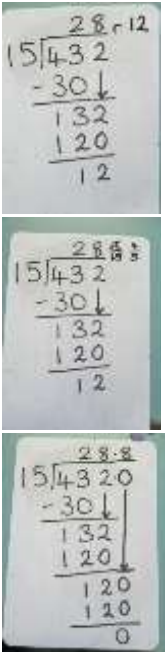
| Year group | Foundations | Rapid Recall | Mental calculation | Objective | Method | Practical methods | Pictorial/written methods | Vocabulary |
|------------|--|--|---|--|--|--|--|--|
| Y1 | Count back in 2's Count back in 10's. Halves up to 10. Count back in 5's. Half multiples of 10. How many 2's? 5's? 10's? | Chanting of counting in 2s, 5s and 10s | Explore halving numbers through odd and even numbers. | Consolidation of EYFS Solve one-step problems involving division in practical contexts Concept of division as both grouping and sharing Find simple fractions of objects, numbers and quantities in practical contexts. | Practical / recorded using ICT Informal written methods Horizontal recording | Objects, Multilink, Lego, beads, bead strings, Numicon, whiteboards, role play.  | Pictorial representations $20 \div 2 = 10$  | Group, pairs, left over, share, equal, half/halve, same, count out, share out, left, left over |

| Year group | Foundations | Rapid Recall | Mental calculation | Objective | Method | Practical methods | Pictorial/written methods | Vocabulary |
|------------|---|--|--------------------|--|---|--|---|--|
| Y2 | Division facts 2x table. Division facts 10x table. Halves up to 20. Division facts 5x table. Count back in 3's. Review division facts (2x, 5x and 10x tables). | Know division facts for 2, 5 and 10 times tables | $TU \div 2$ | Consolidation of Y1 Recall and use division facts for the 2, 5 and 10 tables, including recognising odd and even numbers Calculate mathematical statements for division within the multiplication tables and write them using the (\div) and ($=$) signs Know that division is not commutative i.e. cannot be done in any order. Solve problems involving division, using materials, arrays, mental methods, and division facts, including problems in contexts Recognise, find, name and write fractions $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$ and $\frac{3}{4}$ of a set of objects or quantity | Practical Informal written methods Horizontal recording | Number lines, number tracks, hundred squares, multilink, counters, bead strings. $15 \div 3 = 5$   $6 \div 3 = 2$  | Use arrays: $15 \div 3 = 5$  Picture representations:  | Group, pairs, left over, share, equal, half/halve, same, count out, share out, left, left over <i>Groups of, times smaller, shorter etc, repeated subtraction, array, row, column, halve share, share equally, one each, two each, three each... group in pairs, threes... tens, equal groups of, divide, divided by, divided into,</i> |

| Year group | Foundations | Rapid Recall | Mental calculation | Objective | Method | Practical methods | Pictorial/written methods | Vocabulary |
|------------|---|--|--------------------|---|---|--|--|---|
| Y3 | <p>Review division facts (2x, 5x and 10x tables).</p> <p>Division facts 4x table.</p> <p>Halve 2 digit numbers.</p> <p>Division facts 8x table.</p> <p>Division facts 3x table.</p> <p>Division facts (6 x table) or review others.</p> | <p>As previous with increasing fluency</p> <p>Know division facts for 3, 4 and 8 multiplication tables</p> | TU / HTU 2 | <p>Consolidation of Y2</p> <p>Recall and use division facts for the 3, 4 and 8 multiplication tables</p> <p>Write and calculate mathematical statements for division using the multiplication tables that they know using mental and progressing to formal written methods</p> <p>Solve problems, including missing number problems, involving division, including positive integer scaling problems</p> <p>Recognise that tenths arise from dividing one-digit numbers or quantities by 10</p> | <p>Practical</p> <p>Informal written methods</p> <p>Horizontal recording</p> <p>Formal written method</p> | <p>Practical division using place value counters or dienes</p> <p>$63 \div 3 = 21$</p>    | <p>TU \div U</p> <p>Partitioning $63 \div 3 = 21$ $60 \div 3 = 20$ $3 \div 3 = 1$</p> <p>Formal written method - short division (no, exchange, no remainders)</p>  <p>$1 \div 10 = 1/10$</p>  | <p>Group, pairs, left over, share, equal, half/halve, same, count out, share out, left, left over groups of, times smaller, shorter etc, repeated subtraction, array, row, column, halve share, share equally, one each, two each, three each... group in pairs, threes... tens, equal groups of, divide, divided by, divided into</p> <p>Division, share, groups of, sets of</p> |

| Year group | Foundations | Rapid Recall | Mental calculation | Objective | Method | Practical methods | Pictorial/written methods | Vocabulary |
|------------|--|--|--|--|---|---|---|---|
| Y4 | <p>Division facts (4x and 8x table).</p> <p>10 times smaller.</p> <p>Division facts (3x, 6x and 12x tables).</p> <p>Halve larger numbers and decimals.</p> <p>Division facts (3x and 9x tables).</p> <p>Division facts (7x and 11x tables).</p> <p>Division facts (6x and 12x tables).</p> | Derive and recall facts up to the 10 times table | <p>Numbers up to $1000 \div 10/100$ (whole number answers and understand the effect Halves of TU / HTU numbers and multiples of 10 or 100</p> | <p>Consolidation of Y3</p> <p>Recall division facts for multiplication tables up to 10×10</p> <p>Use place value and known and derived facts to divide mentally for example $600 \div 3 = 200$ can be derived from $2 \times 3 = 6$</p> <p>Practise to become fluent in the formal written method of short division with exact answers</p> <p>Recognise that hundredths arise when dividing a one- or two-digit number by 100 and dividing by dividing tenths by 10</p> <p>Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</p> <p>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 eg $4/5$ of $25 = 20$</p> | <p>Practical</p> <p>Formal written method</p> | <p>Dienes, place value counters</p>  <p>Practical division using place value counters or dienes</p> $339 \div 3 = 113$  $338 \div 3 = 112r2$  | <p>TU \div U, then HTU \div U</p> <p>Formal written method - short division (no exchange, first without, then with remainders)</p>     | <p>Group, pairs, left over, share, equal, half/halve, same, count out, share out, left, left over, groups of, times smaller, shorter etc, repeated subtraction, array, row, column, halve share, share equally, one each, two each, three each... group in pairs, threes... tens, equal groups of, divide, divided by, divided into</p> <p>Division, share, groups of, sets of</p> <p>Exchange, factor, inverse, divisible by</p> |

| Year group | Foundations | Rapid Recall | Mental calculation | Objective | Method | Practical methods | Pictorial/written methods | Vocabulary |
|------------|---|--|---|--|---|--|---|---|
| Y5 | <p>Division facts (4x and 8x tables). 100, 1000 times smaller.</p> <p>Division facts (3x, 6x and 12x tables).</p> <p>Partition to divide mentally. Halve larger numbers and decimals.</p> <p>Division facts (3x and 9x tables). 100, 1000 times smaller. Division facts (11x and 7x tables).</p> <p>Partition decimals to divide mentally. Review division facts (6x and 12x tables).</p> <p>Halve larger numbers and decimals.</p> | <p>As previous with increasing fluency</p> <p>Divide whole numbers by 10, 100 and 1000</p> | <p>Divide using factors of the divisor (eg $\div 8$ by $\div 2$ and $\div 4$)</p> <p>Divide numbers by 10/100/1000 (describe the effect)</p> <p>Halves of U.t/0.th</p> | <p>Consolidation of Y4</p> <p>Multiply and divide numbers mentally, drawing upon known facts</p> <p>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</p> <p>Divide whole numbers and those involving decimals by 10, 100 and 1,000</p> <p>Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers</p> <p>Establish whether a number up to 100 is prime and recall prime numbers up to 19</p> <p>Solve problems involving division, and a combination of all 4 operations, including understanding the meaning of the equals sign</p> <p>Solve problems involving division, including scaling by simple fractions and problems involving simple rates</p> <p>Interpret non-integer answers to division by expressing results in different ways according to the context, including with remainders, as fractions, as decimals or by rounding (for example, $98 \div 4 = 98/4 = 24 \text{ r } 2 = 24 \frac{1}{2} = 24.5 \approx 25$).</p> | <p>Practical</p> <p>Formal written method</p> | <p>Practical division using place value counters or dienes</p>  | <p>ThHTU \div U with and without remainders expressed as fractions and decimals</p>     | <p>Group, pairs, left over, share, equal, half/halve, same, count out, share out, left, left over, groups of, times smaller, shorter etc, repeated subtraction, array, row, column, halve share, share equally, one each, two each, three each... group in pairs, threes... tens, equal groups of, divide, divided by, divided into Division, share, groups of, sets of, exchange, factor, inverse, divisible by</p> <p>Divisibility Divisible by</p> |

| Year group | Foundations | Rapid Recall | Mental calculation | Objective | Method | Practical methods | Pictorial/written methods | Vocabulary |
|------------|---|---|---|--|---|--|---|--|
| Y6 | <p>Division facts up to 12×12.</p> <p>Partition to divide mentally.</p> <p>Halve larger numbers and decimals.</p> <p>Division facts (up to 12×12).</p> <p>Partition to divide mentally.</p> <p>Halve larger numbers and decimals.</p> | <p>Derive \div facts involving multiples of 10/100 (eg $240 \div 30$) and decimals (eg $4.8 \div 6$)</p> | <p>Divide using factors of the divisor (eg $\div 15$ by $\div 5$ and $\div 3$)</p> <p>TU \div U U.t \div U Integer 1000/100/10</p> | <p>Consolidation of Y5</p> <p>Application of all prior skills learnt to increase fluency</p> <p>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</p> <p>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</p> <p>Use written division methods in cases where the answer has up to 2 decimal places</p> <p>Divide proper fractions by whole numbers (for example, $1/3 \div 2 = 1/6$)</p> <p>Associate a fraction with division and calculate decimal fraction equivalents [for example, $0.375 = 3/8$]</p> | <p>Practical</p> <p>Informal written methods</p> <p>Formal written method</p> | <p>Practical division using place value counters or dienes</p>  | <p>ThHTU \div TU with remainders expressed as fractions and decimals</p> <p>Formal written method - long division</p>  | <p>groups of, times smaller, shorter etc, repeated subtraction, array, row, column, halve share, share equally, one each, two each, three each... group in pairs, threes... tens, equal groups of, divide, divided by, divided into Division, share, groups of, sets of, exchange, factor, inverse, divisible by, divisibility</p> |