



Progression in written calculation strategies for **division**

(Examples indicate end of year expectations)

Reception

Statutory Guidance

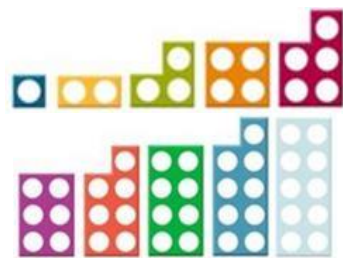
Subitise (recognise quantities without counting) to 5.

Verbally count beyond 20, recognising the pattern of the counting system.

Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.

Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally

e.g. describing pattern of add and even



e.g. 6 sweets shared equally between 3 friends



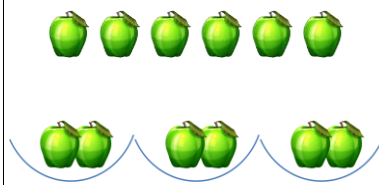
Year 1

Statutory Guidance

Solve one-step problems involving division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

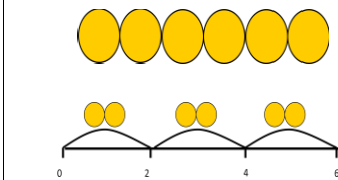
Possible representations Sharing

How many apples are in each bowl if I share 6 apples between three bowls?



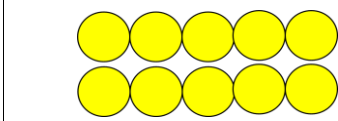
Grouping

Put these counters into groups of two. How many groups are there?



Non-Statutory guidance

They make connections between arrays, number patterns, and counting in twos, fives and tens (with the support of a teacher)



White Rose video link and parent activity book

<https://vimeo.com/531646216>

<https://vimeo.com/533496366>

<https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Y1-HL-Summer-Block-1-Multiplication-and-division-2020.pdf>

Year 2

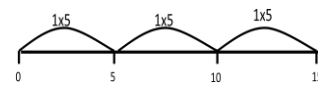
Statutory Guidance

Solve problems involving division, using materials, arrays, repeated addition, mental methods, and division facts, including problems in contexts.

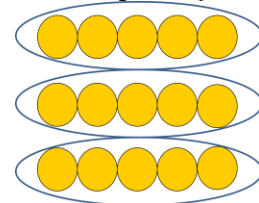
Possible representations

e.g. $15 \div 5 =$

Counting up on a number line.



Using arrays



Division facts: 2,3,5 & 10

Non- statutory guidance

They connect unit fractions to equal sharing and grouping, to numbers when they can be calculated, and to measures, finding fractions of lengths, quantities, sets of objects or shapes.

White Rose video link and parent activity book

<https://vimeo.com/492603633>

<https://vimeo.com/492603961>

<https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Y2-HL-Spring-Block-1-Division-2020.pdf>

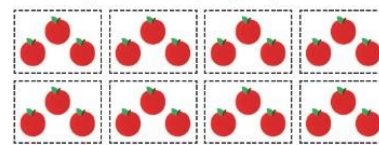
Year 3

Statutory Guidance

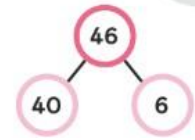
Write and calculate mathematical statements for division using the multiplication tables that they know.

Possible representations

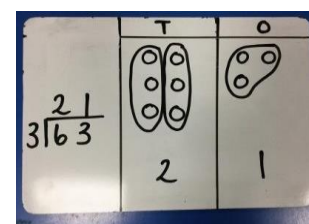
Put 24 apples into 8 equal groups.



$$46 \div 2 =$$



Introduction to short division dividing two-digit numbers by one-digit:



Division facts include: 2,3,4,5,8 and 10.
e.g. $24 \div 8 =$

Non-statutory guidance

Use known division facts to derive related facts.
e.g.
If I know that $24 \div 8 = 3$, then... $240 \div 8 = 30$

White Rose video link and parent activity book

<https://vimeo.com/489845622>

<https://vimeo.com/494126561>

<https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Y3-HL-Spring-Block-1-Multiplication-and-division-2-2020.pdf>

Year 4

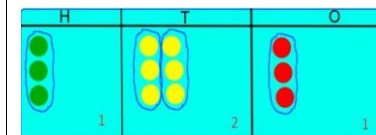
Statutory Guidance

No reference to written division calculations (short division is taught at Flax in Year 4)

Children continue to relate division to known facts (up to 12×12)

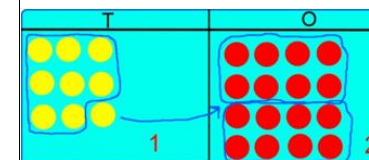
Possible Representations

Short Division



$$363 \div 3 = 121$$

$$\begin{array}{r} 121 \\ 3 \overline{) 363} \end{array}$$



We need to exchange 1 ten from the tens into 10 ones.

$$\begin{array}{r} 12 \\ 8 \overline{) 96} \end{array}$$

White Rose video link and parent activity book

Episode 4 -division
<https://whiterosemaths.com/for-parents/maths-with-michael/>

Year 5

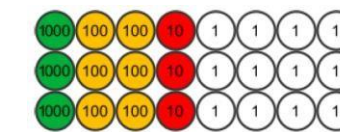
Statutory Guidance

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.

Possible Representations

Place value counters are useful representations when regrouping is required e.g.

$$3642 \div 3$$



Th	H	T	1s
3	6	4	2

Short division with remainders

$$\begin{array}{r} 86 \text{ r } 2 \\ 5 \overline{) 432} \end{array}$$

White Rose video link and parent activity book

<https://vimeo.com/492054136>

<https://vimeo.com/492054148>

<https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Y5-HL-Spring-Block-1-Multiplication-and-division-2020.pdf>

Year 6

Statutory Guidance

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.

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.

Long division e.g. $434 \div 13$

	$\times 31$	
1	31	$0 \ 1 \ 4$
2	62	$31 \overline{) 434}$
3	93	$\underline{3 \ 1}$
4	124	$1 \ 2 \ 4$
5	155	$\underline{1 \ 2 \ 4}$
6	186	0
7	217	
8	248	
9	279	
10	310	

White Rose video link and parent activity book

<https://vimeo.com/461800078>

<https://vimeo.com/463003643>

<https://vimeo.com/463003911>

<https://vimeo.com/464216730>

