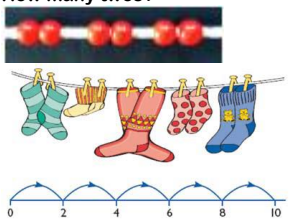
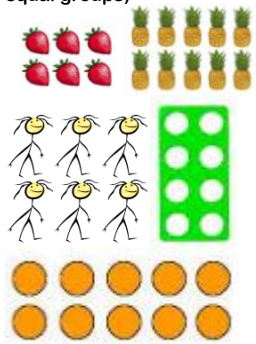
Division KS1

EYFS	**Reception: ELG 2018** Numbers to 20: place them in order and say which number is one more or one less than a given number Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer They solve problems, including doubling, **halving and sharing.** **Exceeding:** Estimation and checking quantities by counting up to 20 **Combining groups of 2, 5 or 10 or sharing into equal groups**	
Year	1	2
Layers of vocabulary  **Appendix 1a** Beck's Tiers of Vocabulary **Appendix 1b:** Vocabulary book	**Basic to subject specific (Beck's Tiers):** count in ones, twos… tens… share, groups of, equal groups odd, even **Instructional vocabulary:** count out, share out, left, left over	**Basic to subject specific (Beck's Tiers):** share, share equally one each, two each, three each… group in pairs, threes… tens equal groups of ÷, divide, divided by, divided into left, left over **Instructional vocabulary:** tell me, describe, name, pick out, discuss, talk about, explain, explain your method, explain how you got your answer, give an example of… show how you
NC 2014	solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs.
	Concrete, pictorial, abstract	Concrete, pictorial, abstract

Division KS1

<table>
<tr>
<td>Developing Conceptual/ Procedural Understanding</td>
<td>Grouping/Sharing models
Using practical contexts and cross-curricular links (PE) such as socks and shoes; animals in the ark to get into groups.
Sharing models such as sharing pieces of fruit.

Sharing into equal groups
6 frogs shared equally between 2 lily pads gives 3 frogs on each lily pad
or
Grouping in equal groups
6 frogs grouped in 2s need 3 lily pads to sit on
 

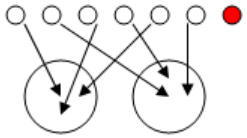
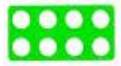
GROUPING ITP
How many twos?
 
</td>
<td>Arrays
(rectangular arrangements to show equal groups)
 

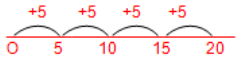
Decision making
How many cars can you make if you have 8 wheels?
 
How many different ways can you arrange 12 buttons in equal groups?
  </td>
<td>Grouping/Sharing models
Introduce the ÷ symbol
 
15 frogs shared equally between three lily pads
15 ÷3 = 5
or
15 frogs grouped in 5s need 3 lily pads to sit on
15 ÷5 = 3

15 ÷ 3 = 5 groups of 3 (grouping)
 

20 ÷ 2 = 10
 
 

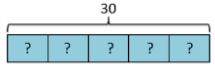
5 hops in 15. How big is each hop?

There are 7 cakes and 2 children. How many cakes will they get each? (Leftovers/remainders introduced)
 
7 ÷ 2 = 3r1</td>
<td>Arrays representing the dividend
  10 ÷ 2 = 5  and 10 ÷ 5 = 2
Repeated addition (to reach a given target)
 

There are 20 sweets in a bag. How many children can have 5 each?
 

Repeated subtraction (from a given quantity)
 

Links to tables
 
Use language of division linked to tables using counting stick

Representing problems
Jane has 30 cakes. She wants to share them equally between 5 boxes. How many cakes should go in each box?
 

30 ÷ 5 = 6
Number of cakes in each box = 6</td>
</tr>
<tr>
<td>Known facts</td>
<td colspan="2">Count in multiples of twos, fives and tens.</td>
<td colspan="2">Recall and use x and ÷ facts for the 2, 5 and 10 x tables, including recognising odd and even numbers.</td>
</tr>
<tr>
<td rowspan="3">Essential Knowledge</td>
<td>Count back in 2s</td>
<td>Halves up to 10</td>
<td>Division facts (2 x table)</td>
<td>Halves up to 20</td>
</tr>
<tr>
<td>Count back in 10s</td>
<td>Halve multiples of 10</td>
<td>Division facts (10 x table)</td>
<td>Review division facts (2 x, 5 x, 10 x tables)</td>
</tr>
<tr>
<td>Count back in 5s</td>
<td>How many 2s? 5s? 10s?</td>
<td>Division facts (5 x table)</td>
<td>Count back in 3s</td>
</tr>
<tr>
<td>Tests of divisibility</td>
<td>All even numbers will divide by 2</td>
<td></td>
<td>All numbers ending in 0 will divide by 10</td>
<td>All numbers ending in 5 and 0 will divide by 5</td>
</tr>
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