

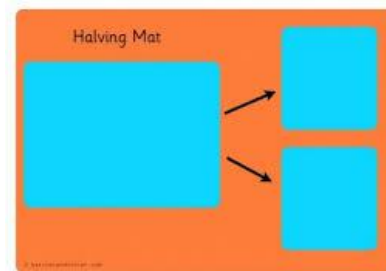
## Division Vision

Following my previous explanations of how we perform multiplication calculations using concrete (physical) resources and visual (pictorial) representations, we are now going to explore how we carry out division in Key Stage 1. An explanation of the division into Key Stage 2 will follow next week.

### Reception Class

In Year R we tend to use the following vocabulary when teaching children to divide: part, whole, share, share equally, one each, two each..., group, groups of, lots of.

Year R children experience division by sharing objects e.g. halving.



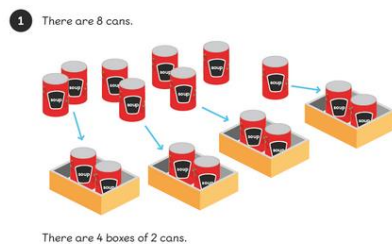
### Year 1

In Year 1 we tend to use the following vocabulary when teaching children to divide: part, whole, share, share equally, one each, two each..., group, groups of, lots of, array

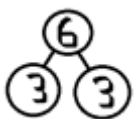
Children in Year 1 are be taught to divide through working practically. The sharing is shown below the whole to familiarise children with the concept of the whole.

*The language of whole and part part is used.*

$$8 \div 4 = 2$$



$$6 \div 2 = 3$$

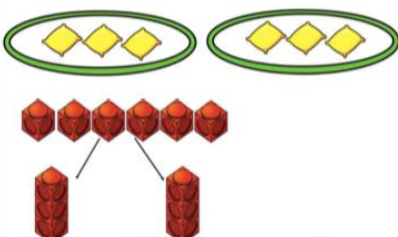
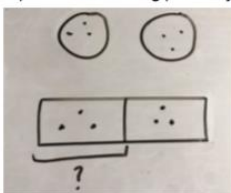
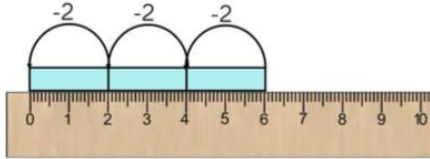
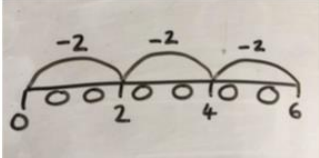
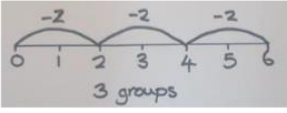


## Year 2

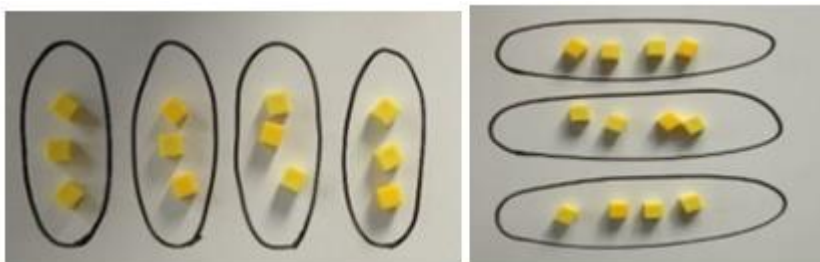
In Year 2 we tend to use the following vocabulary when teaching children to division: part, whole, group in pairs, 3s ... 10s etc, equal groups of, divide,  $\div$ , divided by, divided into, remainder

In Year 2 the children learn to divide by sharing physical objects. They move on to drawing such and then representing as abstract numbers – see from left to right below.


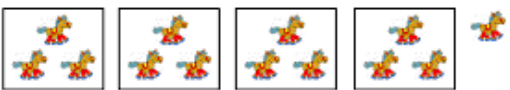
They are also taught to divide by carrying out repeated subtraction.

<p><b>Sharing</b> using a range of objects. <math>6 \div 2</math></p> 	<p>Represent the sharing pictorially.</p> 	<p><math>6 \div 2 = 3</math></p> <table border="1" data-bbox="1045 683 1300 728"> <tr> <td>3</td> <td>3</td> </tr> </table> <p>Children should also be encouraged to use their 2 times tables facts.</p>	3	3
3	3			
<p><b>Repeated subtraction</b> using Cuisenaire rods above a ruler. <math>6 \div 2</math></p>  <p>3 groups of 2</p>	<p>Children to represent repeated subtraction pictorially.</p> 	<p>Abstract number line to represent the equal groups that have been subtracted.</p> 		

Children also solve problems in context using arrays e.g.



And also, if ready, divisions involving remainders by sharing out and seeing what is left.

$13 \div 4 = 3$  Remainder 1

You can see that, as with multiplication, addition and subtraction, when they are ready, they move from using the resources to drawing visual representations and then to abstract numbers. If children move too quickly to the abstract or don't have experience of the resources they may not understand the maths behind the concept. This is where, as adults we can go wrong sometimes, as we forget the journey we made to get to our own understanding or were taught a procedure rather than actually understanding what is going on mathematically.

Anyway, I hope that you have found this insight into how we teach division in KS1 useful. Next week we will explore how we teach division in Key Stage 2.

Mr Wheat