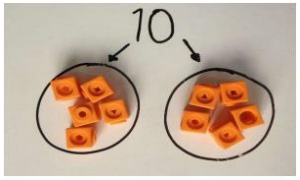
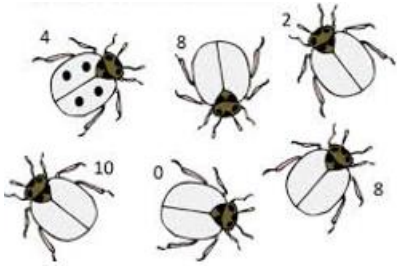
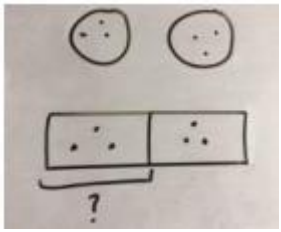
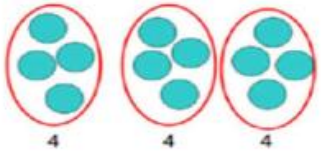
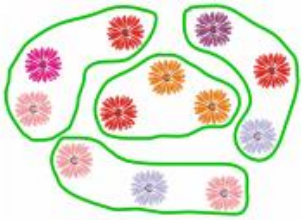
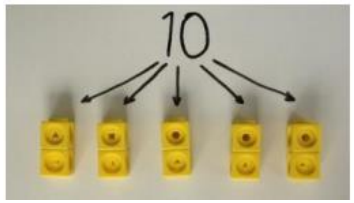
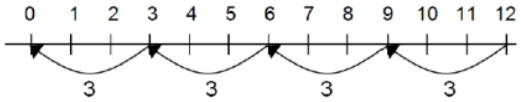
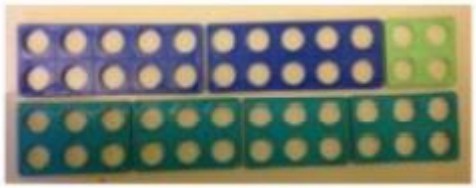
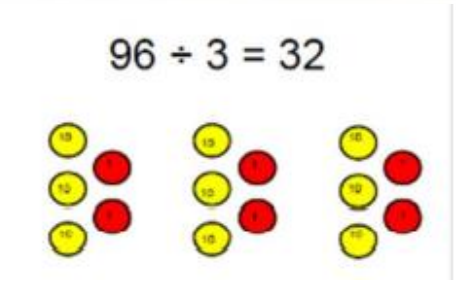
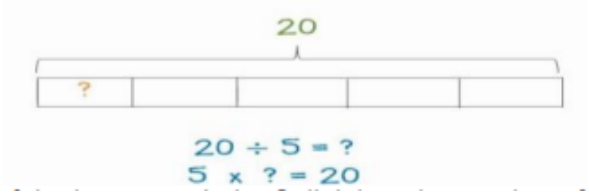
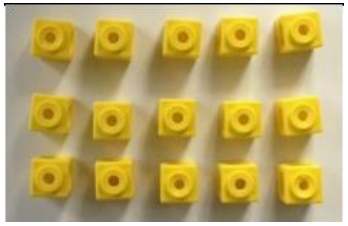
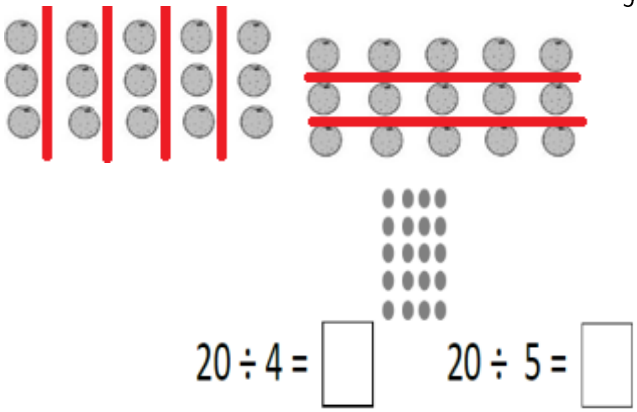
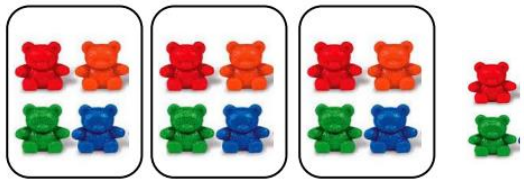
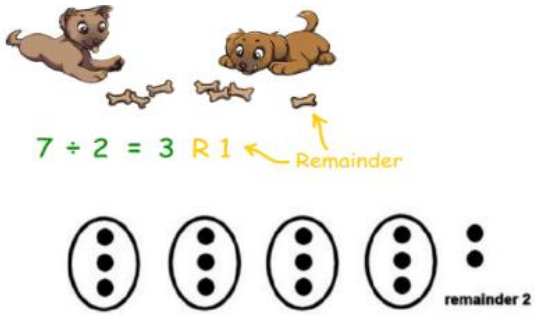
Maths Methods and Representations – Division

Strategies	Concrete	Pictorial	Abstract
Halving	Children have the opportunity to physically split objects, food, shapes or numbers in half. Is each part excalty the same? 	Use pictures to visualise half of an image or number. 	What is half of 6? Half of 8 is… If I have 10 sweets and I give half to my friends, how many will they have?
Division as Sharing	Children count out maths resoures to share into two, then more, equal groups.  	Children use pictures or shapes to share quantities.    12 shared between 3 is 4  Children use bar modelling to show and support understanding.	Can you share 10 sweets between 2 people? 10 ÷ 2 = 5 6 shared by 2 is 3 3 | 3 12 shared between 3 is 4

Maths Methods and Representations – Division

Division as Grouping This is a good opportunity to demonstrate and reinforce the inverse relationship with multiplication.	Divide quantities into equal groups. Use cubes, counters, objects or place value counters to aid understanding.  	Show jumps in groups. The number of jumps equals the number of groups. 12÷3=4  	28 ÷ 7 = 4 Divide 28 into 7 groups. How many are in each group? Max is filling party bags with sweets. He has 20 sweets altogether and decides to put 5 in every bag. How many bags can he fill?
Division as Grouping	  	Think of the bar as a whole. Split it into the number of groups you are dividing by and work out how many would be within each group.  	How many groups of 6 are there in 24? 24 ÷ 6 = 4

Maths Methods and Representations – Division

Division with Arrays	Link division to multiplication by creating an array and thinking about the number sentences that can be created.  15 ÷ 3 = 5 3 x 5 = 15 15 ÷ 5 = 3 5 x 3 = 15	Begin to use dot arrays to develop a more abstract concept of division. Children can draw lines to divide their array.  	Find the inverse by creating 4 different number sentences. 7 x 4 = 28 4 x 7 = 28 28 ÷ 7 = 4 28 ÷ 4 = 7
Division with a Remainder	Divide objects between groups and see how many are left over. 14 ÷ 3 = 	 	Complete written divisions and show remainder with an R: E.g. 7 ÷ 2 = 3 R 1