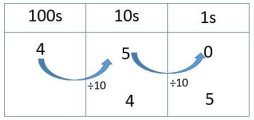
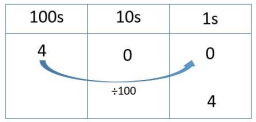
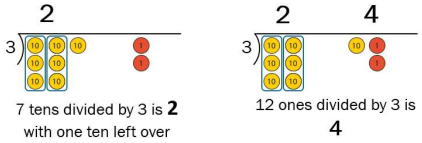
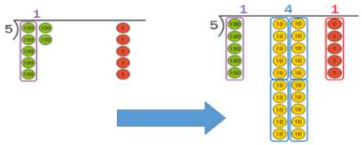
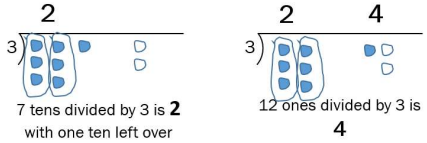
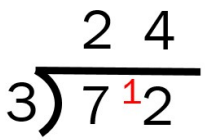
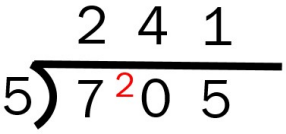
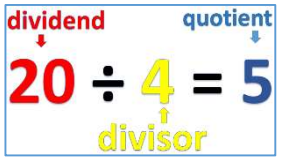
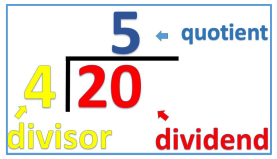
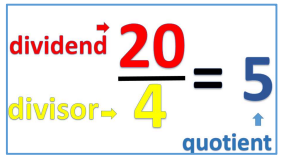
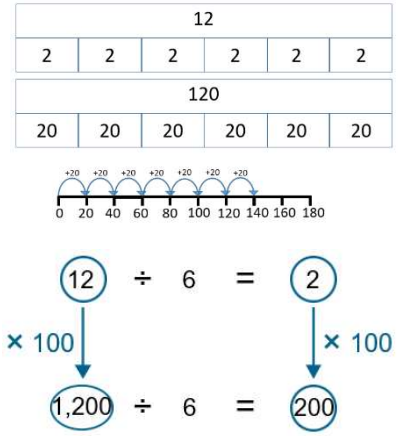
Calculation Policy

Year 4 Division

	Mental Strategies	Concrete	Pictorial	Abstract	Vocabulary	Models, Images and resources
Year 4	Practise and extend mental methods to three-digit numbers to derive facts e.g. 200 × 3 = 600 into 600 ÷ 3 = 200 Divide multiples of 10 up to 1000 by 10 E.g. 120 ÷ 10  Divide multiples of 100 up to 10, 000 by 100 e.g. 600 ÷ 100 or 2800 ÷ 100  Divide two-digit numbers by 4 or 8, e.g. 296 ÷ 8 Identify remainders when dividing by 1 to 12 Find halves of multiples of 10 , even numbers to 200 and three-digit multiples of 10 to 500 e.g. 760 ÷ 2	**Apply division facts for all multiplication tables in contexts of grouping and sharing – including remainders** See Y3 guidance - same principle **2 digit divided by 1 digit all 4 possibilities – moving to short division layout** For all 4 informal possibilities – please see Year 3 examples as it is the same principle. £72 shared between three using short division layout  **3 digit divided by 1 digit all 4 possibilities – moving to short division layout** £705 shared between three using short division layout  	**Apply division facts for all multiplication tables in contexts of grouping and sharing – including remainders** See Y3 guidance - same principle **2 digit divided by 1 digit all 4 possibilities – moving to short division layout** For all 4 informal possibilities – please see Year 3 examples as it is the same principle. £72 shared between three using short division layout  **3 digit divided by 1 digit all 4 possibilities – moving to short division layout** £705 shared between three using short division layout **Can be drawn just like the worked example above**	**Apply division facts for all multiplication tables in contexts of grouping and sharing – including remainders** See Y3 guidance - same principle **2 digit divided by 1 digit all 4 possibilities – moving to short division layout** For all 4 informal possibilities – please see Year 3 examples as it is the same principle. £72 shared between three using short division layout  **3 digit divided by 1 digit all 4 possibilities – moving to short division layout** £705 shared between three using short division layout  	Divide Share equally, one each, two each…, Grouping equal groups, how many lots of, groups of… half of halved symbol ÷ Remainder Left over Repeated subtraction dividend	100 square Number lines Number tracks Bead strings (for children) Bead bar Tens Frame Numicon Place Value Disks Cuisenaire Base hundreds tens and ones Arrow Cards Gattegno chart Place Value Grid

	Know the vocabulary for division equations see below:    	**Related Calculations** E.g. 1200 pencils shared between 6 classes  	**Related Calculations** E.g. 1200 pencils shared between 6 classes **Can be drawn out**	**Related Calculations** E.g. 1200 pencils shared between 6 classes  	divisor quotient a tenth of the size	
		Develop fluency in efficient written method of short division with exact answers when dividing by a one-digit number. (eg. 11 ÷ 2 expressed as 5 ½ or 5.5 not 5 remainder 1) Solve two step problems with increasingly harder numbers including correspondence questions such as three cakes shared equally between 10 children. Introduce dividing using subtracting 10 lots of divisor and asking 'how many more left over?' 52 ÷ 4 I know that 10 lots of 4 are 40, there will be 12 left over which is another 3 lots of 4 so there are 13 lots of 4 in 52				
	Useful IWB links for manipulatives	https://www.coolmath4kids.com/manipulatives/base-ten-blocks https://mathsbot.com/manipulatives/placeValueCounters https://mathsbot.com/manipulatives/bar https://classroomsecrets.co.uk/free-year-1-part-whole-model-iwb-addition-and-subtraction-activity/ https://www.nctm.org/Classroom-Resources/Illuminations/Interactives/Ten-Frame/ http://www.ictgames.com/mobilePage/tenFrame/index.html				