DIVISION

	AGE-RELATED EXPECTATIONS	Recording				Bar model	Rapid Recall	Mental calculation
YR	Share objects into equal groups and count how many in each group	Practical / recorded using ICT (eg digital photos / pictures on IWB)	Pictures / Objects 6 cakes shared between 2 6 cakes put into groups of 2		Symbols 6 cakes shared between 2 6 cakes put into groups of 2	6 shared into groups of 2		(*see recording*)
KS1	Solve (practical) problems that involve sharing into equal groups	Practical / recorded using ICT	Pictures / Symbols How many apples in each bowl if I share 12 apples between 3 bowls?	Number tracks / Number line (modelled using bead strings) 8 ÷ 2 = 4 9 ÷ 3 = 3 Counting in 3s		9 9 shared into 3 groups = 3		Halves of even numbers to 10 (*see recording*)
	Division as sharing and grouping (including remainders) TU ÷ U (where divisor is 2, 5 or 10) *Division is not commutative*	Pictures / Symbols Four eggs fit in a box. How many boxes would you need to pack 20 eggs?	Number lines / Arrays 15 ÷ 5 [ref *Grouping* ITP]		Partitioning 28 ÷ 2 20 ÷ 2 = 10 8 ÷ 2 = 4	25 ÷ 5 = 25	Derive / recall ÷ facts for 2, 5 and 10 tables Derive / recall halves of even numbers to 20	TU ÷ 2, TU ÷ 10 (multiples of 10)
Lower KS2	TU ÷ U (where divisor is 2, 3, 4, 5, 8 or 10) Round remainders up / down, depending on the context	Number lines (start from zero) 33 ÷ 5 = 6 r3 (counting in 5s)	Partitioning (multiples of the divisor) 50 ÷ 4 = 12 r2 10 x 4 = 40 2 x 4 = 8 (48)	50 divided by 3		÷3 =10 ÷3 = 7 10 + 7 = 17 51 ÷ 3 = 17	Derive / recall ÷ facts for 2, 3, 4, 5, 8 and 10 tables Derive / recall halves of numbers to 100 *Find tenths (see fractions)*	TU / HTU ÷ 2, 4,10, 5 ÷ 4 (halve, halve again)
	Record, support and explain: TU ÷U (eg 98 ÷ 6) HTU ÷ U	Partitioning (multiples of the divisor) 67 ÷ 4 = 16 r3 10 x 4 = 40 6 x 4 = 24 (64)	Grouping/chunking (vertical layout) 96 ÷ 7 96 −70 (7 × 10) 26 −21 (7 × 3) 5 Answer: 13 R 5		132 ÷ 6 = 22 ÷ 6 = 10 ÷ 6 = 10 ÷ 6 = 2		Derive / recall ÷ facts up to the 12 times table	Numbers up to 1000 ÷ 10 / 100 (whole number answers and understand the effect) Halves of TU / HTU numbers including decimals (1dp)

Estimate first

Y5	**Refine and use efficient methods:** ThHTU ÷ U (eg 4123 ÷ 7)	Grouping (expanded) 6)196 − 60 6×10 136 − 60 6×10 76 − 60 6×10 16 − 12 6× 2 4 32 Answer: 32R4	Grouping (efficient) 346 ÷ 8 (estimate: 400 ÷ 8 = 50) 8)346 −320 (8 × 40) 26 −24 (8 × 3) 2 Answer: 43 R 2 Use tables fact and place value knowledge to support the fact that: 10 lots of 8 = 80 so, further multiplying 80 by 4 = 320 (8 x 40 = 320)	'Short' division 432 ÷ 5 becomes 8 6 r 2 3 5 | 4 3 2 Answer: 86 remainder 2 432 ÷ 5 becomes 8 6 $^{2}/_{5}$ 3 5 | 4 3 2 Answer: 86 and 2 fifths	Bar Visualisation 432	Recall quickly ÷ facts up to 12 times table Divide whole numbers by 10, 100, 1000.
Y6	**Use efficient methods:** ThHTU ÷ TU (eg 4123 ÷ 27)	Grouping / Chunking (fractional remainder) or (decimal) 432 ÷ 15 becomes 2 8 1 5 | 4 3 2 3 0 0 15×20 1 3 2 1 2 0 15×8 1 2 $\frac{12}{15} = \frac{4}{5}$ Answer: $28\frac{4}{5}$ Use mental maths knowledge to support the fact that: 10 lots of 15 = 150 so, doubling it = 300 It may be useful to write multiples of 15 to assist. 0 28·8 15 | 4 3 2·0	Short/Compact/ 'Bus-stop' ((fractional remainder) 496 ÷ 11 becomes 4 5 r 1 5 1 1 | 4 9 6 Answer: $45\frac{1}{11}$ Support with Base 10 apparatus / deines equipment. iPad app = "number pieces"	Bar Visualisation Larger divisors make the Bar an inefficient visualisation method.	Factors Divide decimals by 1 100, 1000