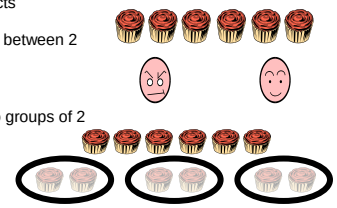
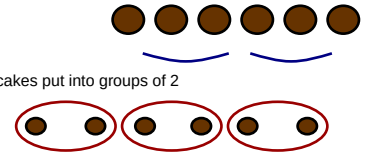
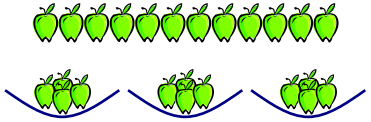
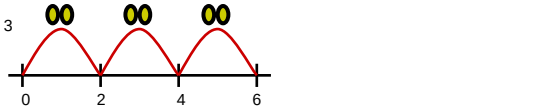
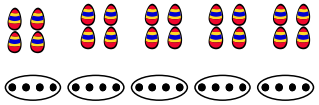
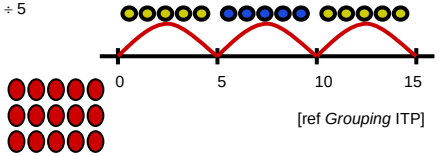
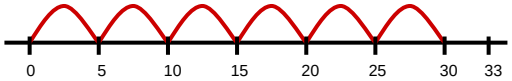
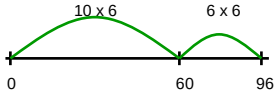
DIVISION

Estimate first

	AGE-RELATED EXPECTATIONS	← Recording →			Rapid Recall	Mental calculation
YR	Share objects into equal groups and count how many in each group ref: *Overview of learning 10*	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 		(*see recording*)
Y1	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 6 ÷ 2 = 3 		(*see recording*)
Y2	Division as sharing and grouping (including remainders) TO ÷ O (where divisor is 2, 5 or 10)	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	Derive / recall ÷ facts for 2, 5 and 10 tables Derive / recall halves of even numbers to 40	TO ÷ 2
Y3	TO ÷ O (where divisor is 2, 3, 4, 5, 6 or 10) Round remainders up / down, depending on the context	Number lines (start from zero) 33 ÷ 5 = 6 r3 	Grouping (vertical layout) – see method for Y4 below (but to be used for divisors in Y3 of 2, 3, 4, 5, 6 or 10.)		Derive / recall ÷ facts for 2, 3, 4, 5, 6 and 10 tables	TO / HTO ÷ 2
Y4	**Record, support and explain:** TO ÷O (eg 98 ÷ 6)	Number lines (start from zero) 96 ÷ 6 = 16 	Grouping (vertical layout) 96 ÷ 7 96 - 70 (10 x 7) 26 - 21 (3 x 7) 5 = 13 r5		Derive / recall ÷ facts up to the 10 times table	Numbers up to 1000 ÷ 10 / 100 (whole number answers and understand the effect Halves of TO / HTO numbers and multiples of 10 / 100
Y5	**Refine and use efficient methods:** HTO ÷ O	Grouping (expanded) 6) 196 - 60 (10 x 6) 136 - 60 (10 x 6) 76 - 60 (10 x 6) 16 - 12 (2 x 6) 4 = 32 r4 'Empty' number line (start from 0) may be used to record calculation strategy	Grouping (efficient) 346 ÷ 8 (estimate 400 ÷ 8 = 50) 8) 346 - 320 (40 x 8) 26 - 24 (3 x 8) 2 = 43 r2	'Short' division 291 ÷ 3 (estimate: 270 ÷ 3 = 90) 3) 290 ÷ 1 = 3) 270 ÷ 21 (90 + 7) This is then shortened to: 3) 2 9 ² 1 (9 7)	Recall quickly ÷ facts up to 10 times table	Divide using factors of the divisor (eg ÷8 by ÷2 and then ÷4) Divide numbers by 10 / 100 / 1000 (describe the effect) Halves of 0.t / 0.th
Y6	**Use efficient methods:** Integer ÷ O (eg 123 ÷7) Decimal ÷ O (eg 27.6 ÷8) HTO ÷ TO	Grouping (efficient) 25.6 ÷ 8 = (estimate 24 ÷ 8 = 3) 8) 25.6 - 24.0 (3.0 x 8) 1.6 - 1.6 (0.2 x 8) 0 = 3.2 'Empty' number line may still be used	'Short' division 43 .4 ÷ 7 (estimate: 42 ÷ 7 = 6) 6 .2 7) 43 .'4	Partitioning 43.4 ÷ 7 = 6.2 6 x 7 = 42 0.2 x 7 = 1.4 (43.4)	'Long' division 560 ÷ 24 (estimate: 550 ÷ 25 = 22) 23 24) 560 −480 80 −72 8 Answer: 23 R 8	Derive ÷ facts involving multiples of 10 / 100 (eg 240 ÷ 30) and decimals (eg 4.8 ÷ 6)	Divide using factors of the divisor (eg ÷15 by ÷5 and then ÷3) TO ÷ O O.t ÷ O Integer ÷ 1000 / 100 / 10