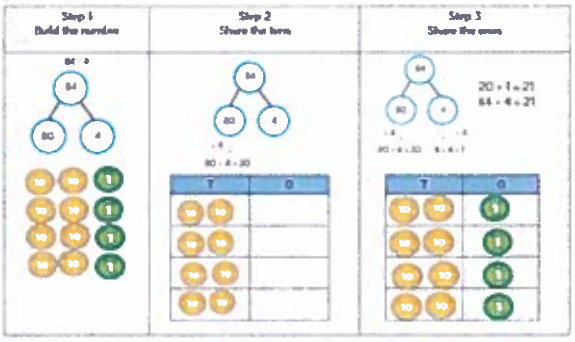
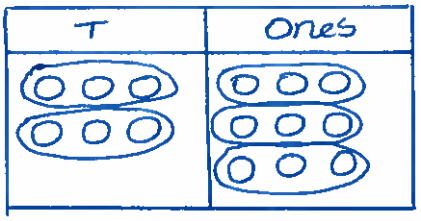
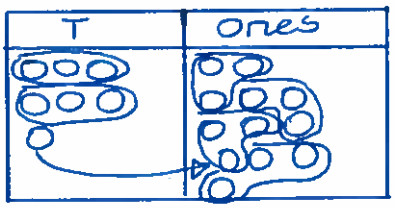
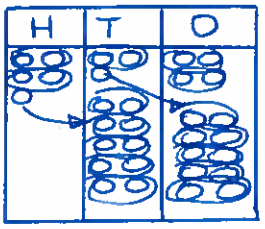
Year 4 Division

Key words: column method, place value, digits, thousands, hundreds, tens, ones, divisor, regrouping, exchanging, times tables.

Resources: Hundred square, multiplications square, place value grid, number line, counters.

- By Year 4, children should be able to divide two-digit and three-digit numbers by a one-digit number using formal written layout.
- The children will calculate answers without remainders and then with remainders.

	Example Division Problems - without remainder	**Solution**
WTS	Charlie solves 84 ÷ 4 like this:  Use this approach to solve: 69 ÷ 3 88 ÷ 4 96 ÷ 3	69 ÷ 3 = 23  
EXS	Macey is working out 72 ÷ 3. Before she starts, she says the calculation will involve an exchange. Do you agree? Use APE to explain how you know you are correct.	A. I agree P.  72 ÷ 3 = 24 E. I can make 2 groups of 3 out of 7. I have to exchange 1 ten.
GDS	James thinks that the answer to 872 ÷ 4 is going to be larger than the answer to 976 ÷ 8. Do you agree or disagree? Use APE to show how you know you are correct. Can you make your own agree or disagree question related to division for your partner to solve?	218 4 ⟌ 872 122 8 ⟌ 976 I agree because 872 divided into 4 groups is 218, and 976 divided by 8 is 122. So the first answer is larger.

	Example Division Problems - with remainder	
WTS	John says that all of these calculations will have remainders. 534 ÷ 2 = 624 ÷ 3 = 758 ÷ 4 = Do you agree? Use APE to explain your reasoning.	 $2\overline{)534}$ = 267 $3\overline{)624}$ = 208 $4\overline{)758}$ = 189 r 2 I disagree because only 758 ÷ 4 has a remainder
EXS	Sian has the calculation 85 ÷ 3 = 28 r 1 She says 85 must be 1 away from a multiple of 3 Do you agree? Use APE to support your answer.	$3\overline{)85}$ = 28 r 1 $3\overline{)84}$ = 28 I agree. Remainder 1 means there is 1 left over There are 3 groups of 28, but 1 is left over. The multiple is 84
GDS	**Always, Sometimes, Never** When you divide an even three digit number by an odd single digit number you will always have a remainder. Use APE to show how you know you are correct.	$3\overline{)242}$ = 080 r 2 $5\overline{)356}$ = 071 r 1 $7\overline{)264}$ = 037 r 5 $3\overline{)962}$ = 320 r 2 Always. I know that I am correct because I have experimented and they all had.