Reasoning about numbers or shapes

As outcomes, Year 2 pupils should, for example:	As outcomes, Year 3 pupils should, for example:
Give examples to match statements such as:	Give examples to match statements such as:
 When I subtract 10 from a number the units number stays the same. For example: 43 - 10 = 33 86 - 10 = 76 I can add 9 by adding 10 and taking away 1. For example: 16 + 9 = 16 + 10 - 1 = 25 If a number ends in 2 then it is even. For example: 12, 32, 82 If a number ends in 0 then it divides exactly by 10. For example: 10, 40, 90, 100 There are three numbers less than 10 that divide exactly by 3. For example: 3, 6, 9 Odd numbers have 1 left over when you divide them by 2, but even numbers do not. For example: 9 + 2 is 4 remainder 1 15 + 2 is 7 remainder 1 A cube has six square faces. 	 There are five odd numbers between 10 and 20. For example: 11, 13, 15, 17, 19 If you multiply numbers either way round, the answer is the same. For example: 5×6=6×5=30 Any odd number is one more than an even number. For example: 23 = 22 + 1 15 = 14 + 1 Any even number can be written as the sum of two odd numbers. For example: 6=3+3 12=5+7 30=13+17 The multiplication table for 4 is always even. For example: 7×4=28, which is even. A multiple of 5 is always half a multiple of 10. For example: 15=30+2 40=80+2 All squares are rectangles. A square always has four equal sides and four right-angled corners.
For example, explain orally or record that:	For example, explain orally or write that:
• 8 + 7 did 7 + 7 + 1, which is double 7 plus 1; or I made the 8 into 10 then I added 5.	• 23 + 17 I added 17 and 3 to get 20, then 20 more to get 40.
 23 - 7 I did 23 - 3 = 20 then 20 - 4 = 16. 	• 50 – 29 I did 50 take away 30, which makes 20, then added 1.
 21 + 32 1 did 20 + 30 = 50 then 1 + 2 = 3, so it's 53. 	• 25×2 $25 + 25 = 50$, so $25 \times 2 = 50$.
	 46 ÷ 2 I know double 23 is 46, so half of 46 is 23.