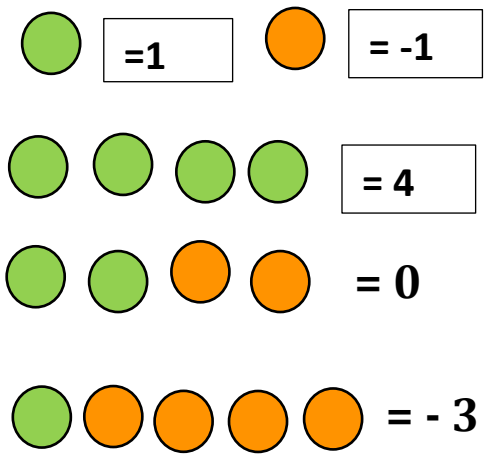
STM Knowledge Organiser Year: 8 Subject: Maths

Topic: Directed numbers

Core Knowledge

Topic/Skill	Definition/Tips	Example
1. Directed number	A number that can be negative as well as positive. There is always a symbol in front of a negative number. There may or not be a symbol in front of a positive number. Negative number – 7 Positive number + 7 or 7	
2. Product	Two or more numbers multiplied together	The product of 3 and 4 is 3 x 4 = 12
3. + /-	Use both the negative and positive value	2x + 3 if x = +/- 5 2 multiplied by +5 + 3 and 2 multiplied by = 5 + 3
4. Rules of addition and subtraction	+ + = + - - = + + - = - - + = -	4 + + 3 = 7 4 - - 3 = 7 4 + - 3 = + 1 4 -+ 3 = +1
5. Rules of multiplication and division	+ x + = + - x - = + -x + = - + x - = -	+4 x + 3 = +12 -4 x - 3 = + 12 -4 x + 3 = -12 +4 x – 3 = -12
6.$\sqrt{16}$ This is a square root	Every number has a positive and negative square root.	4 x 4 =16 therefore 16 is a square number. 16 also has another square root, this is because: -4 x -4 =16

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6. Substitution	When you substitute, you replace a letter with a numerical value	a = 5 and b = - 2 Find: 1) ab = 5 x – 2 = - 10 2) a-b = 5 - - 2 = 5 + 2 = 7