

<u>Year 7 Knowledge Organiser -</u>

Expressions and equations

Key Vocabulary

Variable – an unknown value, represented by a lette	er
Term – a single number or variable, or numbers or variables multiplied or divided by each other (positi or negative)	Ve

Expression – two or more terms added and/or subtracted

Equation - an expression that contains an equals symbol

Formula - a relationship or rule

Like Terms - terms that have the same variables and $\ensuremath{\mathsf{powers}}$

Inverse - reverse or opposite of a function

Expand - to multiply each term in the bracket by the expression outside the bracket

Variable	Term	Expression	Equation	Formula	
а	4a	4 - a	4 – a = 6	A = I x w	
b	4a²	4 + a	8 = a + 4	$A = \pi r^2$	
с	$\frac{a}{4}$	4a ² + 3a ²	$\frac{a}{4} = b$	$a^2 + b^2 = c^2$	
d	$\frac{-3a^2}{4}$	$\frac{a}{4}-2$	a ² + 4 = 8	$S = \frac{D}{T}$	
$\frac{\text{Expanding single brackets}}{3(2x + 4)}$ $Multiply each term inside the bracketby the term outside of the bracket.}$ $4(y + 2) + 2(5 - y)$					
$3 \times 2x + 3 \times 4 \qquad \underline{4y + 8} + \underline{10} - 2y$ $6x + 12 \qquad $					

Objectives

Understand and use the concepts and vocabulary of expressions, equations, formulae and terms

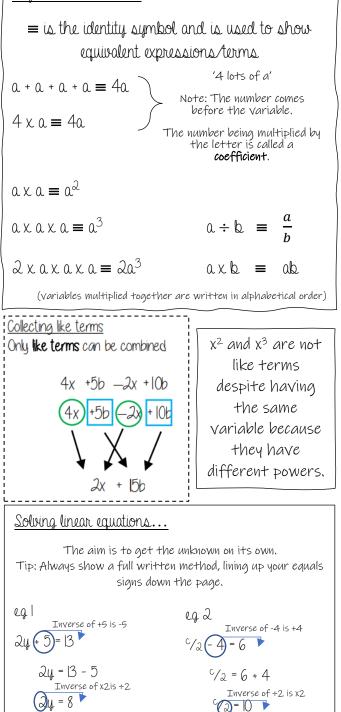
Use and interpret algebraic notation

Collect like terms

Expand single brackets

Solve linear equations in one unknown algebraically

<u>Algebraic notation...</u>



c = 10 x 2 c = 20

 $\mu = \frac{8}{2}$

I = 4