## Introduction to Algebra

Sunday, 13 October 2019 9:43 AM

- 🜟 By the end of the lesson I would hope that you have an understanding of the concepts below:
  - · Know what a pronumeral is
  - · Know what a variable is
  - · Know what a term is
  - · Know what a constant is
  - · Know what an expression is
  - Know what an equation is
  - · Know a co-efficient is
  - Know how to decode English into Maffs!

#### RECAP:

This is probably the first time that many of you will have met Algebra ... so there isn't much of a recap. Let's get right into this!

Remember one thing and you'll have this Algebra BEATEN

# MATHS IS A BIG FAT TRICK!

#### Starting simplez ....

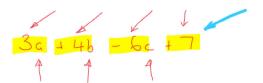
The difference between an equation and an expression:

$$3x + 4 = 6 = Eq^*$$
  
 $3q + 3b - 4c + 6 = Exp$ 

#### Let's throw some confusing language in!

We all know how to read stuff!

We all know that if we understand what the word means, then we can understand the context of the questions.





Term: Something which might have numbers and letters stuck together.

Term: Something which might have numbers and letters stuck together. Pronumeral: A letter! constant: A term without a letter (so a number really!) **coefficient**: The number in front of a term. Variable: Something which can have a different size (or amount in Maths). How is this used in Maths? Let's look at some examples then! Example 1: Provided from the Cambridge Essentials Textbook series List the individual terms in the expression 3a+b+13c. b b 130 State the coefficient of each pronumeral in the expression 3a+b+13c. 13 Give an example of an expression with exactly two terms, one of which is a constant term. **Marrying English and Maffs!** The problem with Algebra isn't the Maffs  $\dots$  it's the English! If we don't understand all the words which might be used and how they are also Mathematics language, then we are stuffed! "More than" "Less than" "Sum" "Double" "Product" "Halved" "Divided by" "Subtracted" "Tripled"

"Lots of"

Get the above sorted .... And you can't go wrong in this Algebra stuff!

### Example 2: Provided from the Cambridge Essentials Textbook series

Write an expression for each of the following.

5 more than k

K+5

3 less than m

$$m - 3$$

the sum of a and b

$$a+b$$

double the value of x

$$2x \times 2 = 2x = 2x$$

the product of c and d

#### Example 3: Provided from the Cambridge Essentials Textbook series

Write an expression for each of the following without using the × or + symbols.

p is halved<mark>, then</mark> 4 is added

the sum of x and y is taken and then divided by 7

$$\frac{x+y}{7}$$

the sum of x and one-seventh of y

$$x + y$$

すっちり

y = 7

9-7

 $\boldsymbol{5}$  is subtracted from  $\boldsymbol{k}$  and the result is tripled

$$(K-5)x3$$