



Crosby Primary School

Mathematics Medium Term Plan Year 6 Summer Term

Unit 2 Algebra (3 Weeks)

National Curriculum

- Use simple formulae.
- Generate and describe linear sequences.
- Express missing number problems algebraically.
- Find pairs of numbers that satisfy an equation with two unknowns.
- Enumerate possibilities of combination of two variables.

Ready to Progress



- 6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number)
- 6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.
- 6AS/MD-4 Solve problems with 2 unknowns.

Times Tables

- Consolidate and practice all multiplication and division facts to 12x12 – any order, missing numbers, fractions.
- Use multiplication and division facts to derive associated facts.
- Develop multiplicative reasoning - links between multiplication, division and fractions

Concept Sequence

- One step function machines - find a rule. Use terms input and output. Work backwards. Work out the function.
- Two step function machines – find rule/missing values/function.
- Forming expressions – use cubes to represent a variable to aid understanding. Show $yx4$ as $4y$.
- Substitution – use simple expressions to find particular values. The same expression can have different values depending on what has been substituted.
- Use simple formulae – substitute into familiar formulae such as area and volume.
- Forming equations - generate and describe linear number sequences. Formulate one step equations.
- Solve one-step equations – use 4 operations. Use concrete materials. Solve using a balancing method.
- Solve two step equations – use balancing method. Use concrete and pictorial representations.
- Find pairs of values 1 – Use substitution to consider what possible values a pair of variables can take. Trial and Improvement.
- Solve problems with two unknowns - enumerate possibilities – find pairs of values involving multiples. Work systematically.

If  = 7 and  = 5, what is the value of:

$$\text{star} + \text{heart} + \text{heart}$$

If $a = 7$ and $b = 5$ what is the value of:

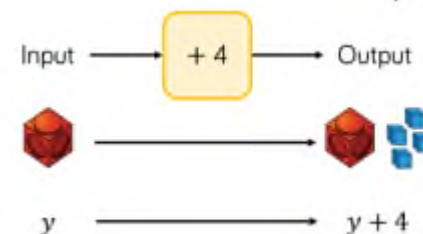
$$a + b + b$$

New Vocabulary

Input, output, function machine
Rule, Expression, Formula, Equation, Algebra
Variable, unknown
Trial and improvement

Planning Links

White Rose Scheme of Work:
<https://assets.whiterosemaths.com/new-schemes/Year%206%20Spring%20Block%202%20SOL%20Algebr.pdf>
Power Maths, White Rose, Maths No Problem, Aspire Maths



Resources

Cubes
Gordons Maths Games, Mathletics, TTRockstars
BBC Super Movers
<https://www.bbc.co.uk/teach/supermovers/ks2-collection/zr4ky9q>

