

WHAT DO WE ALREADY *know?*

- Use symbols (including letters) to represent missing numbers.
- Substitute numbers into worded formulae.
- Substitute numbers into simple algebraic formulae.
- Know the order of operations.

# Stage 7 – Algebraic Proficiency



- Understand what is meant by term, expression, equation and identity.
- Be confident with algebraic notation ( $ab$  means  $a \times b$  etc.).
- Simplify expressions, including those containing brackets.
- Substitute values into formulae and expressions.
- Find inputs and outputs from function machines.



- Expression
- Term
- Equation
- Formula
- Simplify
- Formulae
- Function
- Input
- Output
- Substitute

## Algebraic Proficiency - Targets

	Before Topic	After Topic	Teacher Mark
Know the meaning of term, expression, formula, equation and function.			
Know the 'rules' of algebra; for example, $y + y + y = 3y$ , $4c \times 2d = 8cd$ and $z \times z = z^2$ .			
Simplify a simple expression by collecting like terms.			
Simplify more complex expressions by multiplying out brackets and collecting like terms, where necessary.			
Know substitute means 'replace'.			
Substitute positive numbers into expressions and formulae.			
Find missing outputs from function machines.			
Find missing inputs from function machines.			