



Algebra: Introduction to Functions

Teaching Ideas

Learning Objective: To interpret simple expressions as functions with inputs and outputs.

- Success Criteria:**
- To understand and apply function notation.
 - To substitute values into a function.
 - To solve simple equations involving function notation.

Context: This can be used as an introduction to functions for higher tier students, to be followed with the lessons on composite and inverse functions. Students should be confident in substituting into expressions and solving equations.

Starter

Students answer the substitution and solving questions then rearrange their answers so they are in order of size, from smallest to largest. This will spell out the word 'inverse'.

Main Activities

What Is a Function?

Discuss the meaning and notation related to the word function, using an example from the starter activity. Students can make notes here. They should then move on to the 'Think, Pair, Share' activities, discussing the answer to each question with their partner before sharing with the class.

Your Turn!

Students should now work independently on the [Target Board Activity Sheet](#). They will need to work out the integer answer to each question before crossing it off from their target board. This will leave two numbers, 1 and 9, for which (as an extension) they should find as many functions relating the two numbers as possible. For example, for the function $f(x) = 2x + 7$, $f(1) = 9$

Plenary

Lower ability students: Complete the statements WWW (What Went Well) and EBI (Even Better If) to assess their own understanding of the lesson today. If time, this should be discussed with the class and any misconceptions or remaining questions can be answered or made a note of for the next lesson

Higher ability students: Work through the exam style question in pairs, before discussing their answers with the class.