



Year 11 Maths Learning Journey

Autumn Term 6

Algebra: Functions

Core knowledge	Reference
Use function machines (R) “How do you calculate the input given the output?”	Worksheet
Substitution into expressions and formulae (R) “What does it mean to substitute a value?”	Worksheet
Use function notation “What is the difference between $f(x)$ and $f(2)$?” “Why doesn’t the graph $1/x$ meet the axis?”	Worksheet
Work with composite functions (H) “What is the difference between $fg(x)$ and $gf(x)$?”	Worksheet
Work with inverse functions (H) “What is an inverse operation?”	Worksheet
Graphs of quadratic functions “How many turning points does a graph of a quadratic function have?”	Worksheet
Solve quadratic inequalities (H) “How do you identify the region on a graph?”	Worksheet

Learning Checkpoints

LC Title	Completed	Dirt
Functions		

Key Vocabulary:

Composite: A composite number is a positive integer, which is not prime and therefore has more than two factors.

Evaluate: To determine or calculate the numerical value.

Function: An expression, rule, or law that defines a relationship between one variable (the independent variable) and another variable (the dependent variable).

Inequality: An inequality compares two values, showing if one is less than, greater than, or simply not equal to another value.

Input: The input is what goes into the function.

Operation: A mathematical process.

Output: The input is what comes out of the function.

Set: A set is the mathematical model for a collection of different things.

Substitute: Putting values in place of variables to calculate the value of an expression.

Turning Point: A stationary point is called a turning point if the derivative changes sign (from positive to negative, or vice versa) at that point.

Variable: A symbol for a value we don't know yet.