

# Stage 10 - Solving Equations and Inequalities II



- Inequality
- Variable
- Manipulate
- Solve
- Solution set
- Integer
- Set notation
- Region
- Linear
- Functions



- Understand and use set notation
- Solve inequalities
- Represent inequalities on a graph

## WHAT DO WE ALREADY *know?*

- Understand the meaning of the four inequality symbols
- Find the set of integers that are solutions to an inequality
- Use set notation to list a set of integers.
- Plot graphs of linear functions stated explicitly and implicitly.

### Solving Equations and Inequalities II - Targets

Before Topic	After Topic	Teacher Mark

State the (simple) inequality represented by a shaded region on a graph

Construct and shade a graph to show a linear inequality of the form  $y > ax + b$ ,  $y < ax + b$ ,  $y \geq ax + b$  or  $y \leq ax + b$

Construct and shade a graph to show a linear inequality in two variables stated implicitly

Construct and shade a graph to represent a set of linear inequalities in two variables

Find the set of integer coordinates that are solutions to a set of inequalities in two variables

Use set notation to represent the solution set to an inequality