## Year 8 | Term 4

| Stage | Description | | |
|---|---|---|---|
| | **Section A**<br>Expressions and formulae | **Section B**<br>Straight line graphs | **Section C**<br>Solving equations |
| **Emerging** | • Know how to write products algebraically.<br>• Manipulate algebraic expressions<br>• Can expand terms written in brackets. | • Understand the concept of the gradient of a straight line.<br>• Find the coordinates of a straight line graph.<br>• Sketch a linear graph | • Choose the required inverse operation when solving an equation<br>• Identify the correct order of undoing the operations in an equation |
| **Developing** | • Identify common factors (numerical and algebraic) of terms in an expression<br>• Factorise an expression by taking out common factors | • Find the gradient of a straight line on a unit grid<br>• Find the y-intercept of a straight line | • Solve one-step equations when the solution is a whole number (fraction)<br>• Solve two-step equations (including the use of brackets) when the solution is a whole number |
| **Secure** | • Change the subject of a formula when one step is required<br>• Change the subject of a formula when a two steps are required | • Plot and interpret distance-time graphs (speed-time graphs). | • Solve two-step equations (including the use of brackets) when the solution is a fraction.<br>• Check the solution to an equation by substitution |
| **Excellence** | • Create a one-step formula from given information.<br>• Create a two-step formula from given information.<br>• Solve missing number problems expressed in words | • Can plot and interpret time series graphs. | • Solve missing number problems expressed algebraically.<br>• Use Trial and Improvement to find an estimate for a missing number, showing clearly all steps used to solve the problem. |