|  | Subject: Mathematics |  |  |
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| Theme / Area Covered | Algebra 2 End Points |  |  |
|  | Age Related Targets - Year 7 | Age Related Targets - Year 8 | Age Related Targets - Year 9 |
| Key Objectives / Learning Pathway Emerging | Use function machines to find unknowns Recognise and use inverse operations. | Express and solve missing number problems algebraically <br> Know the basic rules of algebraic notation Use the basic rules of algebraic notation Find pairs if numbers that satisfy an equation with two unknowns eg: $a+b=15$ | Solve one step equations when the solution is a positive integer or fraction <br> Solve two step equations when the solution is a positive integer or fraction <br> Solve three step equations when the solution is a positive integer or fraction <br> Solve multi step equations including the use of brackets when the solution is a positive integer or fraction <br> Solve equations when the solution is a positive integer or fraction |
| Key Objectives / Learning Pathway Developing | Express and solve missing number problems algebraically <br> Know the basic rules of algebraic notation Use the basic rules of algebraic notation Find pairs if numbers that satisfy an equation with two unknowns eg: $a+b=15$ | Solve one step equations when the solution is a positive integer or fraction <br> Solve two step equations when the solution is a positive integer or fraction <br> Solve three step equations when the solution is a positive integer or fraction <br> Solve multi step equations including the use of brackets when the solution is a positive integer or fraction <br> Solve equations when the solution is a positive integer or fraction | Solve linear equations with unknowns on one side when calculating with negative numbers is required <br> Solve linear equations with unknowns on both sides when the solution is a whole number Solve linear equations with unknowns on both sides when the solution is a fraction |
| Key Objectives / Learning Pathway Mastering | Solve one step equations when the solution is a positive integer or fraction <br> Solve two step equations when the solution is a positive integer or fraction <br> Solve three step equations when the solution is a positive integer or fraction | Solve linear equations with unknowns on one side when calculating with negative numbers is required <br> Solve linear equations with unknowns on both sides when the solution is a whole number Solve linear equations with unknowns on both sides when the solution is a fraction | Solve linear equations with unknowns on both sides when the solution is a negative number Solve linear equations with unknowns on both sides when the equation involves brackets. Recognise that the point of intersection of two graphs corresponds with the solution of a connected equation |


|  | Solve multi step equations including the use of <br> brackets when the solution is a positive integer <br> or fraction <br> Solve equations when the solution is a positive <br> integer or fraction |  |  |
| :---: | :---: | :---: | :---: |
| Key Objectives / <br> Learning Pathway <br> Excelling | Solve linear equations with unknowns on one <br> side when calculating with negative numbers is <br> required <br> Solve linear equations with unknowns on both <br> sides when the solution is a whole number <br> Solve linear equations with unknowns on both <br> sides when the solution is a fraction | Solve linear equations with unknowns on both <br> sides when the solution is a negative number <br> Solve linear equations with unknowns on both <br> sides when the equation involves brackets. <br> Recognise that the point of intersection of two <br> graphs corresponds with the solution of a <br> connected equation | Find the set of integers that are solutions to an <br> inequality, including the use of set notation <br> Know how to show a range of values that solve <br> an inequality on a number line |
| Solve a simple linear inequality in one variable <br> with unknowns on one side |  |  |  |

