## LEARNING JOURNEY MATHS

## Linear Equations and Inequalities

## Year 8 Autumn Half Term 2

A key trait of successful mathematicians is the ability to generalise problems and work in the abstract to bring sense to real life situations. In this half term you will go beyond numerical equations and use algebra to describe relationships.

The knowledge you are learning this half term is essential for simplifying real life problems, and will give you the skills to more efficiently problem solve in geometric contexts. You will eventually build toward being able to form and solve equations to determine properties of situations and shapes/angles.


TUDOR HABITS AND VALUES: You will require curiosity and persistence this half term to apply what you learnt in year 7 to more complex problems. To extend the skills from year 7 it is essential that you focus on the processes you encounter, and seek to understand them.

VOCABULARY: Order of Operations, Priority, Expression, Equation, Term, Is Equal To, Variable, Constant, Unknown, Subtitute, Solve, Expand, Zero Pairs, Coeffiient, Equivalent.

|  |  |  | Learning Episode RAG | End of Term RAG |
| :---: | :---: | :---: | :---: | :---: |
| Expressions Recap | 1 | Arithmetic with Negative Numbers |  |  |
|  | 2 | Simplification |  |  |
|  | J | Homework 1 |  |  |
|  | 3 | Expanding Brackets |  |  |
|  | 4 | Substitution |  |  |
|  | 边 | Learning Check 1 |  |  |
| Property of Equality | 5 | The Meaning of Expression, Equation, and Inequality |  |  |
|  | 6 | Maintaining Equality |  |  |
|  | 7 | Checking the Solution of an Equation |  |  |
|  |  | Homework 2 |  |  |
| Solving with One Unknown | 8 | Solving Equations in the form $a x+b=c$ |  |  |
|  | 9 | Solving Equations Involving Brackets |  |  |
|  | $\left[\begin{array}{c} {\left[\begin{array}{ll} 0 \\ 0 & 0 \end{array}\right.} \\ 0 \end{array}\right]$ | Homework 3 |  |  |
|  | 10 | Solving Equations in the Form $\frac{a}{b}=c$ |  |  |
|  | $\left[\begin{array}{ll} {\left[\begin{array}{c} 0 \\ 0 \end{array}\right)} \\ 0 & 0 \\ 0 & 0 \end{array}\right]$ | Learning Check 2 |  |  |
|  | 11 | Forming and Solving One Sided Equations |  |  |
| Solving With Unknowns on Both Sides | 12 | Solving Two-Sided Equations |  |  |
|  | 13 | Solving Two-Sided Equations |  |  |
|  | 14 | Forming and Solving Linear Equations |  |  |
|  |  | Homework 4 |  |  |
|  | 15 | Using Formulae |  |  |
|  | 16 | Solving Simple Inequalities |  |  |

Student name: $\qquad$ Class: $\qquad$

Linear Equations and Inequalities

| Expressions <br> Recap | Property of <br> Equality | Solving with One <br> Unknown | Solving with Unknowns <br> on Both Sides |
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|  |  |  |  |

## Reflection and Next Steps

## Teacher Comment:

## Parent Comment:

Signed:

