Algebra Basics Learning Materials

Here's a basic outline of algebra content:

1. Variables and Expressions

- **Explanation:** Algebra uses letters (variables) to represent unknown numbers. An algebraic expression combines variables, numbers, and operations ($+, -, \times, \div$).
- **Examples:**
    - $x + 5$
    - $3y - 2$
    - $2ab + c$

2. Equations

- **Explanation:** An equation states that two expressions are equal. Solving an equation means finding the value(s) of the variable(s) that make the equation true.
- **Examples:**
    - $x + 5 = 10$
    - $2y - 3 = 7$

3. Inequalities

- **Explanation**: Inequalities compare expressions using symbols like $<$ (less than), $>$ (greater than), $\leq$ (less than or equal to), and $\geq$ (greater than or equal to).
- **Examples:**
    - $x < 5$
    - $2y + 1 \geq 7$

4. Linear Equations

- **Explanation:** Equations where the highest power of the variable is 1. They can be written in the form $ax + b = c$.
- **Examples:**
    - $2x + 5 = 11$
    - $y = 3x - 2$