Lesson Plan

**Overview and Learning Objective**## Algebra: A First Look  
  
This lesson introduces the exciting world of algebra, the language of mathematics that allows us to represent unknown quantities and relationships using variables. We'll explore how to translate real-world situations into algebraic expressions and learn the basic operations with variables. This lesson aligns with the broader subject goals of developing logical reasoning, problem-solving skills, and a deeper understanding of mathematical concepts.  
  
\*\*Learning Objectives:\*\*  
  
LO-1: Students will be able to define a variable and identify its role in algebraic expressions.  
LO-2: Students will be able to translate simple word problems into algebraic expressions.  
LO-3: Students will be able to perform basic operations (addition, subtraction) with algebraic expressions containing variables.

**Curricular Goals and Curricular competencies**CG-1: Students will understand the fundamental principles of algebraic expressions and equations.  
CG-2: Students will be able to apply algebraic concepts to solve real-world problems.  
CC-1: Students will be able to identify variables, constants, and coefficients in algebraic expressions.  
CC-2: Students will be able to simplify algebraic expressions using the order of operations.  
CC-3: Students will be able to solve linear equations in one variable.

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| **Learning Objective** | **Curricular competencies** | **FACTUAL KNOWLEDGE** | **CONCEPTUAL KNOWLEDGE** | **PROCEDURAL KNOWLEDGE** |
| LO-1 | CC-1 | 1. Variables represent unknown values. 2. Equations express relationships between quantities. 3. Solving equations aims to isolate the variable. | 1. Variables represent unknown quantities. 2. Equations express relationships between variables. 3. Solving for variables involves isolating them. | 1. Combine like terms to simplify expressions. 2. Isolate variables to solve equations. 3. Substitute values to evaluate expressions. |
| LO-2 | CC-2 | 1. Variables represent unknown values. 2. Equations express relationships between quantities. 3. Solving equations aims to isolate the variable. | 1. Variables represent unknown quantities. 2. Equations express relationships between variables. 3. Solving for variables involves isolating them. | 1. Combine like terms to simplify expressions. 2. Isolate variables to solve equations. 3. Substitute values to evaluate expressions. |
| LO-3 | CC-3 | 1. Variables represent unknown values. 2. Equations express relationships between quantities. 3. Solving equations aims to isolate the variable. | 1. Variables represent unknown quantities. 2. Equations express relationships between variables. 3. Solving for variables involves isolating them. | 1. Combine like terms to simplify expressions. 2. Isolate variables to solve equations. 3. Substitute values to evaluate expressions. |

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| **Teaching Points** | **Learning Outcomes** | **Sequential Learning Activities** | **Formative Assessment** | **Expected Queries** |
| anims | LO1, LO2 | activity from gpt | questions from gpt |
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