

# Geometry Angles Learning Materials

## 1. Basic Angle Definitions

- **Explanation:** An angle is formed by two rays that share a common endpoint (vertex).
- **Types of Angles:**
  - **Acute Angle:** An angle measuring less than  $90^\circ$ .
  - **Right Angle:** An angle measuring exactly  $90^\circ$ .
  - **Obtuse Angle:** An angle measuring greater than  $90^\circ$  but less than  $180^\circ$ .
  - **Straight Angle:** An angle measuring exactly  $180^\circ$ .

## 2. Angle Relationships

- **Complementary Angles:** Two angles whose measures add up to  $90^\circ$ .
- **Supplementary Angles:** Two angles whose measures add up to  $180^\circ$ .
- **Vertical Angles:** Two nonadjacent angles formed by intersecting lines. They are congruent (equal in measure).
- **Adjacent Angles:** Two angles that share a common vertex and side but do not overlap.

## 3. Measuring Angles

- Angles are typically measured in degrees ( $^\circ$ ).
- A protractor is used to measure angles.

## 4. Angle Theorems and Postulates

- **Triangle Angle Sum Theorem:** The sum of the interior angles of a triangle is  $180^\circ$ .
- **Linear Pair Postulate:** If two angles form a linear pair, then they are supplementary.