

## Objective

By the end of this lesson, you will be able to identify and describe the relationship between circle features, including the radius, diameter, arc, chord, sector, segment of a circle, and a tangent to a circle.

## Materials and Prep

- Paper
- Pencil
- Ruler

No prior knowledge required, just bring your enthusiasm for learning!

## Activities

- **Create Your Circle:** Draw a large circle on paper and label the radius, diameter, arc, chord, sector, and segment.
- **Circle Scavenger Hunt:** Find objects around your house that are circular and identify the different features of each.
- **Tangent Art:** Draw a circle and then draw a tangent line that just touches the circle at one point. Observe the relationship between the tangent and the circle.

## Talking Points

- **Radius:** "The radius is like the spoke of a wheel, it goes from the center of the circle to any point on the circle."
- **Diameter:** "The diameter is a line that cuts the circle in half, passing through the center."
- **Arc:** "An arc is like a portion of the circle's circumference, like a slice of pizza."
- **Chord:** "A chord is a line segment that connects two points on the circle, it doesn't have to pass through the center."
- **Sector:** "A sector is like a slice of pie, it's the area enclosed by two radii and the arc between them."
- **Segment:** "A segment is the region enclosed by a chord and the arc subtended by the chord."
- **Tangent:** "A tangent is a line that touches the circle at exactly one point, like a car just grazing a curve."