

# Session 28: Perimeter

Session Title	Perimeter
Objective	<ol style="list-style-type: none"><li>1. Understand the concept of perimeter as distance around a shape.</li><li>2. Learn and apply formulas for the perimeters of squares, rectangles, and circles.</li><li>3. Use real-world examples and activities to explore perimeter.</li></ol>
Concept	<ol style="list-style-type: none"><li>1. Perimeter is the total distance around the edge of a shape.</li><li>2. Square: <math>\text{Perimeter} = 4 \times \text{side}</math></li><li>3. Rectangle: <math>\text{Perimeter} = 2 \times (\text{length} + \text{width})</math></li><li>4. Circle: <math>\text{Perimeter (Circumference)} = 2 \times \text{radius}</math> or <math>\pi \times \text{diameter}</math></li></ol>
Materials Required	<ol style="list-style-type: none"><li>1. Board &amp; Chalk</li><li>2. String or ruler</li><li>3. Shapes cutouts (square, rectangle, circle)</li><li>4. Chart paper</li><li>5. Measuring tape</li><li>6. Puzzle sheets</li></ol>
Methodology	Activity-based Learning: Measuring and calculating perimeters. Experiential Learning: Relating perimeter to real objects (tables, books, playground).
Session Duration	90 Minutes

## Introduction Activity (15 minutes):

SHAPE WALK Draw large shapes on the floor using tape. Students walk along the edges of each shape counting steps. Discuss which shape had the longest perimeter.

# Main Activity (60 minutes):

## Hands-On Measurement: REAL-WORLD PERIMETER (20 minutes)

1. Measure the sides of classroom items (e.g., desk, whiteboard) using rulers or string.
2. Calculate perimeter using appropriate formulas.
3. Write and label the shapes with their dimensions and perimeter.

## Fun Puzzle Time! (20 minutes)

Students solve puzzles like:

- "A square has a side of 5 cm. What is its perimeter?"
- "A rectangle is 6 cm long and 3 cm wide. Find the perimeter."
- "A circle has a radius of 7 cm. What is the circumference?"

## Time to Solve (20 Minutes)

### 1. Match Shapes to Their Perimeters

1. Look at the shape and see the lengths of its sides.
2. Add all the sides together to find the perimeter (the distance around the shape).
3. Then, match the shape to the correct number (perimeter) from a list.

Example:

A square with each side = 5 cm

Perimeter =  $5 + 5 + 5 + 5 = 20$  cm

### 2. Fill in Missing Sides and Find Total Perimeter

Some sides of a shape are missing.

Use what you know about shapes (like rectangles have equal opposite sides) to fill in the blanks.

Then, add up all the sides to find the total perimeter.

Example:

Rectangle: One long side is 8 cm, one short side is 3 cm

Opposite sides are the same, so:

$$\text{Perimeter} = 8 + 3 + 8 + 3 = 22 \text{ cm}$$

**3. True or False: "A circle's perimeter is the same as its area."**

Answer: False

Simple Explanation:

The perimeter of a circle (called circumference) is how far it is around the edge.

The area is how much space is inside the circle.

These are different things, so the answer is False.

## Review Questions/Assessment/Tasks (10 minutes):

**Ask:**

1. What is the formula for a square's perimeter?
2. How do we find the perimeter of a circle?
3. Which shape's perimeter did you find easiest to calculate?

## Follow up Tasks (5 minutes):

**Homework:**

1. Measure and record the perimeter of any object at home (table, book, mat).
2. Draw and label a square, rectangle, and circle with dimensions and perimeter.
3. Make a shape puzzle for a classmate to solve.

## Expected Learning Outcome:

**Knowledge building:**

- Ability to calculate perimeter of basic shapes.
- Understand terms like radius, diameter, and side.

**Skill Building:**

- Measurement and application
  - Real-life math connection
  - Visual problem-solving
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