Lesson Objective
To classify polygons and special quadrilaterals

NAEP 2005 Strand: Geometry
Topics: Dimension and Shape; Relationships Among Geometric Figures
Local Standards: ___________________________________________________________________

Vocabulary

A polygon is ________________________________________________________________

 quadrilateral 4 sides
pentagon 5 sides

6 sides 8 sides 10 sides

A regular polygon is _________________________________________________________

An irregular polygon is _____________________________________________________

 A is a quadrilateral with exactly one pair of parallel sides.

 A parallelogram is a quadrilateral with pairs of opposite sides parallel.

There are three special types of parallelograms.

A rectangle is a parallelogram with right angles.

A is a parallelogram with congruent sides.

A is a parallelogram with right angles and congruent sides.
Examples

1. **Identifying Regular Polygons** Identify the polygon and classify it as regular or irregular.

   - The figure has 6 sides. Not all sides are congruent.
   - The figure is ________.

2. **Classifying Polygons** Identify the polygons in the design.

   - The outside polygon is a decagon. Inside the decagon are ________, ________, and a ________.

3. **Using Dot Paper** Draw a regular parallelogram.

   - A ________ is a regular parallelogram.

Quick Check

1. Identify each polygon and classify it as regular or irregular.
   
   a. 
   
   b. 
   
   c. **Reasoning** How would you find the perimeter of a regular polygon? Explain.

2. Use the best names to identify the polygons in the pattern.

3. Use dot paper to draw a trapezoid with a pair of opposite sides that are congruent.