Grade 3 Math Chapter 5

PRINTABLE STUDENT INSTRUCTION | ONE SUBJECT ONLY

Grade 3 Mathematics Chapter 5: Shapes, Perimeter, Area and Reasoning

Student textbook chapter. Five connected lessons with explanations and modeled work, matched to a 60-question practice workbook. This chapter is part of the developing Grade 3 course, not a complete annual textbook.

Lesson 1: Describe Polygons

Direct instruction: A polygon is a closed shape made of straight line segments. A triangle has three sides. A quadrilateral has four sides. A shape's orientation does not change its number of sides. Draw closed lines carefully before classifying a figure.

Model and Discuss

Explain one important idea using a drawing, original example, diagram, quoted verse, or source as appropriate. Identify what is directly supported and what remains uncertain.

Advanced extension: Advanced: classify a four-sided figure with one pair of parallel opposite sides.

Lesson 2: Sort Quadrilaterals

Direct instruction: Rectangles have four right angles; squares are rectangles with four equal sides. Rhombuses have four equal sides but need not have right angles. A parallelogram has opposite sides parallel. Classification can be inclusive: a square is a rectangle and a rhombus.

Model and Discuss

Explain one important idea using a drawing, original example, diagram, quoted verse, or source as appropriate. Identify what is directly supported and what remains uncertain.

Advanced extension: Advanced: explain why a rectangle is a parallelogram.

Lesson 3: Perimeter Problem Solving

Direct instruction: Perimeter is the linear distance around a shape. For a rectangle of 7 cm by 4 cm, the perimeter is 7+4+7+4=22 cm. Unknown side problems require reasoning about total side lengths, not multiplying the two given lengths.

Model and Discuss

Explain one important idea using a drawing, original example, diagram, quoted verse, or source as appropriate. Identify what is directly supported and what remains uncertain.

Advanced extension: Advanced: find two different rectangles with perimeter 30 units.

Lesson 4: Area with Arrays

Direct instruction: Area counts square units needed to cover a region. A 5 by 8 rectangle has 5 rows of 8 unit squares, or 40 square units. Break an irregular rectilinear figure into nonoverlapping rectangles and sum their areas.

Model and Discuss

Explain one important idea using a drawing, original example, diagram, quoted verse, or source as appropriate. Identify what is directly supported and what remains uncertain.

Advanced extension: Advanced: draw two rectangles of equal perimeter but different area.

Lesson 5: Geometry and Measurement Assessment

Direct instruction: Classify shapes by properties rather than how they are drawn. Use appropriate units and models for area or perimeter. The following set is an independent check with a mixture of procedural and written reasoning.

Model and Discuss

Explain one important idea using a drawing, original example, diagram, quoted verse, or source as appropriate. Identify what is directly supported and what remains uncertain.

Advanced extension: Advanced: describe all integer side pairs of a rectangle with perimeter 18 units.

Standards and Context

Reference: 2019 Alabama Mathematics, Grade 3: geometry and measurement. A complete objective-by-objective Alabama crosswalk is still required. Scripture is handled within its covenant context and not treated as part of state academic standards.