



SCOTT FORESMAN  
**Investigations**  
 IN NUMBER, DATA, AND SPACE®

As a way to become familiar with this unit:

- Read the selections
- Try/think through the Activities
- Review the Assessment opportunities
- Do the end-of-unit assessment tasks

### Making Shapes and Designing Quilts

This unit is the 2<sup>nd</sup> of 9 units in first grade. It builds on the work of the previous units in the K-5 geometry strand. Before teaching this unit, perhaps after working through this *Where to Start*, read *Mathematics in This Unit*, p. 10.

#### Investigation 1: Composing and Decomposing 2-D Shapes

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 19)
- Investigation 1 Planner (pp. 20 & 22)

The following activities and information support the key math ideas:

- Activity: Describing Shapes (p. 25)
- Discussion: Ways to Make a Rhombus, Trapezoid, and Hexagon (p. 45)
- Activity: Three Ways to Fill an Outline (p. 49) and Discussion: How Many Blocks Did You Use? (p. 51)
- Discussion: Finding More or Fewer Blocks (p. 63)
- Teacher Note: Identifying Types of 2-D Shapes (p. 121)
- Dialogue Box: Ways to Fill a Hexagon (p. 143)

#### Investigation 2: Describing and Sorting Shapes

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 65)
- Investigation 2 Planner (pp. 66 & 68)

The following activities and information support the key math ideas:

- Activities: *Guess My Rule* with Shape Cards (p. 71) and Making a Shape Poster (p. 74)
- Activities: Looking at Power Polygons: Triangles (p. 78)

#### Preparation

- Materials to Gather and Prepare (pp. 21, 23, 67, 69, 103; also see the Teaching Notes on pp. 32 & 37)
- If you plan to use the *Shapes* Software, read the Teacher Notes on pp. 125 & 128 and familiarize yourself with the *Shapes* Activities (pp. 39, 55, 93 & 106)

#### Assessment

- Assessment in This Unit (p. 14)
- Assessment Activities (pp. 62 & 98; also see the Teaching Notes on pp. 100, 105 & 114) and Teacher Note (p. 129)
- End-of-Unit Assessment Activities (p. 118) and Teacher Note (p. 134)

#### Practice & Review

- Classroom Routines (p. 16)
- Practice and Review (p. 17)

and Quadrilaterals (p. 86)

- Discussion: Comparing Shapes (p. 91)
- Discussion: What Is a Triangle? (p. 96)
- Teacher Note: Learning to Classify and Name Shapes (p. 132)
- Dialogue Boxes: Sorting the Shape Cards (p. 147) and What Is a Triangle? (p. 152)

### Investigation 3: Quilts

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 101)
- Investigation 1 Planner (p. 102)

The following activities and information support the key math ideas:

- Activity: Introducing Paper Quilts (p. 109)
- Discussion: Sharing Paper Quilts (p. 114)
- Teacher Note: Helping Students Make a Paper Quilt (p. 133)

**Teacher Notes** and **Dialogue Boxes** are important sources of information about mathematics content and about students' thinking about mathematical ideas. Each time you teach this unit, you can read more of this information.