



# 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

## Size, Shape, and Symmetry

This unit is the 4<sup>th</sup> of 9 units in fourth grade. It builds on the work of the previous units in the K-5 geometry and measurement strand. Before teaching this unit, perhaps after working through this *Where to Start*, read *Mathematics in This Unit*, p. 10.

### Investigation 1: Linear Measurement

These pages provide an overview of this Investigation:

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

The following activities and information support the key math ideas:

- Activities: Using Measurement Benchmarks and Estimating Length (p. 24) and Using Measurement Tools (p. 30)
- Teacher Note: Introducing Benchmarks (p. 150)
- Discussion: Why Are Our Measurements Different? (p. 44)

### Investigation 2: Polygons of Many Types

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 51)
- Investigation 2 Planner (p. 52)

The following activities and information support the key math ideas:

- Discussion: What Is a Polygon? (p. 56)
- Activity: Introducing Guess My Rule with Quadrilaterals (p. 75) and Guess My Rule with Quadrilaterals (p.76)
- Teacher Note: Classification of Quadrilaterals (p. 155)
- Discussion: All Quadrilaterals ...Some Quadrilaterals (p. 77)

### Preparation

- Materials to Gather and Prepare (pp. 21, 53, 87, 111)

### Assessment

- Assessment in This Unit (p. 14)
- Assessment Activities (pp. 38, 82, 104) and Teacher Note (p. 156)
- End-of-Unit Assessment Activities (p. 146) and Teacher Note (p. 159)

### Practice & Review

- Ten-Minute Math (p. 16)
- Practice and Review (p. 17)

### Investigation 3: Measuring Angles

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 85)
- Investigation 3 Planner (p. 86)

The following activities and information support the key math ideas:

- Activity: How Many Degrees? (p. 96) and Discussion: More Strategies for How Many Degrees? (p. 103)
- Activities: Introducing Building Angles (p. 95) and Building Angles (p. 97)
- Dialogue Box: Building Angles (p. 167)

### Investigation 4: Finding Area

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 109)
- Investigation 4 Planner (p. 110)

The following activities and information support the key math ideas:

- Activities: Introducing Crazy Cakes (p. 122) and Crazy Cakes (p. 125)
- Dialogue Box: Dividing Crazy Cakes (p. 167)
- Activities: Introducing Area on the Geoboards (p. 128) and Measuring Area on the Geoboards (p. 132)
- Discussion: Area on the Geoboards (p. 136)

**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.