



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

Shapes, Blocks, and Symmetry

This unit is the 2nd of 9 units in second 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: Features of 2-Dimensional and 3-Dimensional 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:

- Activities: Looking Closely at Geoblocks (p. 27) and Drawing Geoblocks (p. 29)
- Activity: Sorting Geoblocks (p. 41)
- Discussion: Combining Shapes (p. 48)

Investigation 2: What Is a Rectangle?

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 57)
- Investigation 2 Planner (pp. 58 & 60)

The following activities and information support the key math ideas:

- Discussions: Looking at Angles (p. 70), What's a Rectangle? (p. 74), and Which Rectangle Has the Biggest Area? (p. 81)
- Activities: Describing Rectangles (p. 85) and How Many Rectangles? (p. 98)
- Activity: Making Boxes (p. 108) and Discussion:

Preparation

- Materials to Gather and Prepare (pp. 21, 23, 59, 61, 117, 119; also see the Teaching Note on p. 67)
- Review the directions for preparing the materials for Making Boxes from Rectangles (pp. 61, 108-109)
- If you plan to use the *Shapes* Software, read the Teacher Notes on pp. 152 & 155 and familiarize yourself with the *Shapes* Activities (pp. 33, 52, 87, 129, & 134)

Assessment

- Assessment in This Unit (p. 14)
- Assessment Activities (p. 66, 104, 113) and Teacher Notes (pp. 161 and 164)
- End-of-Unit Assessment Activities (p. 142) and Teacher Notes (p. 166, 168 and 171)

Practice & Review

- Classroom Routines (p. 16)
- Practice and Review (p. 17)
- Addition Combinations: Doubles (p. 46)

Comparing Boxes (p. 111)

- Teacher Note: Area and Arrays (p. 157)
- Dialogue Box: Is It the Same Rectangle? (p. 176)

Investigation 3: Symmetry

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 115)
- Investigation 3 Planner (pp. 116 & 118)

The following activities and information support the key math ideas:

- Activity: Mirror Designs (p. 121)
- Math Workshop: Symmetry (p. 129)
- Activities: Introducing Fold and Cut (p. 133) and Doubling with Pattern Block Designs (p. 139)
- Discussion: Is it Symmetrical? (p. 138)
- Teacher Notes: Making Symmetrical Designs (p. 164)
- Dialogue Boxes: Discussing Symmetry (p. 177)

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.