



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

Prisms and Pyramids

This unit is the 2nd of 9 units in fifth grade. It is part of the K-5 geometry and measurement strand, and is the 1st of two geometry and measurement units at this grade. This unit builds on the work of the previous units in this strand. Before teaching this unit, perhaps after working through this *Where to Start*, read *Mathematics in This Unit*, p. 10.

Investigation 1: Finding the Volume of Boxes

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: Finding Volume (p. 33) and Discussion: Finding Volume (p. 34)
- Teacher Note: Strategies for Finding the Number of Cubes in 3-D Arrays (p. 113)
- Activity: Doubling the Cubes (p. 37) and Discussion: What Are the Dimensions? (p. 38)
- Activity: Differently-Sized Packages (p. 44)

Investigation 2: Using Standard Cubic Units

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 61)
- Investigation 2 Planner (p. 62)

The following activities and information support the key math ideas:

- Discussion: How Many Cubic Centimeters (p. 67)
- Activity: A Plan to Measure Classroom Space (p. 74)

Preparation

- Materials to Gather and Prepare (pp. 21, 23, 63, 89)
- Review the logistics of Building Models of Volume Units (p. 72); Measuring the Classroom (p. 78); Comparing Volumes of Containers (p. 91) and Making Solids from Patterns (p. 93)

Assessment

- Assessment in This Unit (p. 14)
- Assessment Activity (p. 85)
- Assessment Activity (p. 52) and Teacher Note (p. 117)
- End-of-Unit Assessment Activities (p. 111) and Teacher Note (p. 128)

Practice & Review

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

- Teacher Note: Strategies for Measuring Space in the Classroom (p. 123)
- Dialogue Box: Choosing a Volume Unit to Measure the Classroom (p. 138)

Investigation 3: Volume Relationships Among Solids

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 87)
- Investigation 3 Planner (p. 88)

The following activities and information support the key math ideas:

- Activity: Comparing Solids and Their Volumes (p. 96) and Discussion: Related Solids (p. 97)
- Activity: Designing a Prism (p. 100)
- Activity: Measuring with Cubic Centimeters (p. 106) and Discussion: How We Found the Volume (p. 108)
- Dialogue Box: Exploring the Three-to-One Relationship (p. 139)

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.