



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

Equal Groups

This unit is the 5th of 9 units in third grade. It is part of the K-5 multiplication and division strand. 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: Things That Come in Groups

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 21)
- Investigation 1 Planner (p. 22)

The following activities and information support the key math ideas:

- Teacher Note: Images of Multiplication (p. 145)
- Activity: Naming Things That Come in Groups (p. 25)
- Activity: Pictures of Things That Come in Groups (p. 29) and Discussion: Writing “Groups of” as Multiplication (p. 31)
- Activities: Introducing Picture Problems (p. 36) and Solving Picture Problems (p. 37)
- Discussion: Picture Problem Strategies (p. 40)

Investigation 2: Skip Counting and 100 Charts

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 43)
- Investigation 2 Planner (pp. 44 & 46)

The following activities and information support the key math ideas:

- Activity: Highlighting the Multiples of 2 (p. 49)
- Teacher Note: Patterns in the Skip Counting Charts (p. 152)
- Activity: Multiples of 5 and 10 (p. 51) and Discussion: Relationships Between the Multiples of 5 and 10 (p. 54)
- Dialogue Box: Relationships Between the Multiples of 5

Preparation

- Materials to Gather and Prepare (pp. 23, 45, 47, 81, 113, 115; also see the Teaching Note on p. 50)
- Review the logistics of Making Array Cards (p. 89)

Assessment

- Assessment in This Unit (p. 14)
- Assessment Activity (p. 41) and Teacher Note (p. 149)
- Assessment Activity (p. 74) and Teacher Note (p. 155)
- End-of-Unit Assessment Activities (p. 142) and Teacher Note (p. 165)

Practice & Review

- Classroom Routines and Ten-Minute Math (p. 18)
- Practice and Review (p. 19)

and 10 (p. 170)

- Activities: Introducing Related Problems (p. 60) and Solving Related Problems (p. 61)
- Discussion: Strategies for Solving Related Problems (p. 65)

Investigation 3: Arrays

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 79)
- Investigation 3 Planner (p. 80)

The following activities and information support the key math ideas:

- Teacher Note: Representing Multiplication with Arrays (p. 157)
- Activities: Introducing Arranging Chairs (p. 83) and Arranging Chairs (p. 85)
- Discussion: Sharing Our Arrays (p. 88)
- Dialogue Box: Finding the Number of Squares in an Array (p. 174)
- Activities: Introducing *Factor Pairs* (p. 98) and Math Workshop Activity 2A: *Factor Pairs* (p. 99)
- Discussion: Using Known Multiplication Combinations (p.102)
- Activity: Making Multiplication Cards (p. 103)

Investigation 4: Understanding Division

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 111)
- Investigation 4 Planner (pp. 112 & 114)

The following activities and information support the key math ideas:

- Teacher Note: The Relationship Between Multiplication and Division (p. 148)
- Activity: Solving Division Story Problems (p. 117) and Discussion: Sharing Our Solutions (p. 119)
- Activity: Solving Story Problems (p. 122) and Discussion: Multiply or Divide? (p. 122)
- Dialogue Box: Is It Multiplication or Division? (p. 175)
- Activities: Introducing *Missing Factors* (p. 130) and Playing *Missing Factors* (p. 131)

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.