



# 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

## Describing the Shape of the Data

This unit is the 2<sup>nd</sup> of 9 units in 4th grade. It builds on the work of the previous units in the K-5 data analysis and probability strand. Before teaching this unit, perhaps after working through this *Where to Start*, read *Mathematics in This Unit*, p. 10.

### Investigation 1: Landmarks in the Data

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:

- Activity: Representing the Number of Raisins in a Box (p. 25) and Describing the Raisin Data (p. 28)
- Activities: Representing the Heights of Fourth and First Graders (p. 38) and Comparing the Heights of Fourth and First Graders (p. 42)
- Activities: Finding Medians of Height Data (p. 47) and Comparing Medians of Height Data (p. 48)
- Teacher Note: Finding and Using the Median (p. 125)

### Investigation 2: Using Data to Compare

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 51)
- Investigation 2 Planner (p. 52 & 54)

The following activities and information support the key math ideas:

- Activity: Brainstorming Survey Questions (p. 57) and Choosing and Revising a Survey Question (p. 59)
- Activities: Comparing WNBA Players' Points Per Game

### Preparation

- Materials to Gather and Prepare (pp. 21, 53, 55, 93)
- Plan for how students will collect the height of first graders (Teaching Note, p. 37)
- Plan for how your students will collect data from other classrooms (p. 131)

### Assessment

- Assessment in This Unit (p. 14)
- Assessment Activity (p. 50) and Teacher Note (p. 127)
- Assessment Activity (p. 63)
- End-of-Unit Assessment Activities (p. 118) and Teacher Note (p. 136)

### Practice & Review

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

(p. 83) and Discussion: Arguments about WNBA Players (p. 89)

- Teacher Note: Numerical and Categorical Data (p. 130)
- Dialogue Box: Is This a Good Game? (p. 151)

### Investigation 3: Finding and Comparing Probabilities

These pages provide an overview of this Investigation:

- Mathematical Emphases (p. 91)
- Investigation 3 Planner (p. 92)

The following activities and information support the key math ideas:

- Activity: Introducing Probability and the Likelihood Line (p. 95)
- Activity: Introducing Using Numbers as Measures of Probability (p. 102)
- Activity: Probability Experiments (p. 109)
- Discussion: Comparing the Three Experiments (p. 115)
- Teacher Note: Impossible, Certain and Everything in Between (p. 134)

**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.