

# Reader Summaries

## Collecting Data and Reading the Newspaper

### **Collecting Data** (lesson on pages 36–40)

#### Estimating with Multidigit Numbers

#### Reading Level 3.9

Throughout the text of this reader, students are given exposure to estimating multidigit numbers. The book introduces the students to various types of data collectors. The students learn about how meteorologists collect and prepare data, using tools, satellites, and radars. They also explore how census counters and city planners collect and use data to predict population increases, school enrollment numbers, and city park size. With a range of data tables and context-providing visuals, the students use specific strategies to estimate computations or results, round numbers, and check the reasonableness of computational results.

### **Reading the Newspaper** (lesson on pages 41–45)

#### Estimating with Multidigit Numbers

#### Reading Level 2.9

This reader is designed for students who are reading below a third grade reading level. It focuses on giving the students understanding of and experience with rounding and estimating multidigit numbers. This book helps students learn the names of the different sections in a typical newspaper and examine the content provided in each of the sections. Students also learn about data collecting as they explore the various types of ways that data is used in a newspaper. The students will have opportunities to round numbers and estimate computations as they explore an assortment of newspaper articles with topics such as weather, sports, business, and movies. Students will also see how the Internet has expanded the world of newspapers.

# Reader Summaries *(cont.)*

## What Are Budgets? and Our Vacation Budget

### **What Are Budgets?** *(lesson on pages 60–64)*

**Working with Decimals**

**Reading Level 3.6**

In this reader, the students are introduced to the concept of a budget. The text also exposes the students to different types of budgets and why they are important. They learn the difference between income and expenses and how to keep track of them. They also get exposure to how budgets change when income levels change. The *Let's Explore Math* problems allow the students to practice making good choices and calculating sums and differences with dollar amounts. The students also learn about the decimal point, as it relates to dollars and cents. Finally, the text allows the students to create their own simple budgets, explaining important content vocabulary, such as allowance, earnings, planning, categories, savings, expenses, and income.

### **Our Vacation Budget** *(lesson on pages 65–69)*

**Working with Decimals**

**Reading Level 2.6**

This reader is designed to give the students a real experience with exploring the topic of budget making. The students explore decimals while adding and subtracting with dollars and cents. This text sets the concept into a situational context of helping a family plan for an upcoming vacation. The students are introduced to planning for unexpected expenses as well as creating a plan to provide for necessary and fun expenses. As the students progress through the situation, they will see the various changes that occur to income, expenses, and thus to the vacation budget as the vacation draws closer. Because of these changes, the students will see how the family has to make specific changes to the vacation plans and the actual budget for the vacation. It will be exciting for the students to discuss what changes occur in the income and how this affects the budget of possible expenses for the vacation.

# Reader Summaries *(cont.)*

## **The World of Trade and My Lemonade Stand**

### **The World of Trade** *(lesson on pages 84–88)*

#### Identifying Number Patterns

#### Reading Level 3.2

This reader is designed to help students work with number patterns. The students are first exposed to the concept of traders and how they themselves can be considered traders. Students are given information, applicable to their own lives, where they study how traders swap goods and services. As the students recognize and create patterns, they will make inferences based on the information. The students are given applicable situations for bartering and services. Photographs, tables, situational drawings, and problems are used to help the students develop the necessary context for understanding the mathematical concepts. The text continues to explain the relationship money plays in the world of trade and various types of markets worldwide. Finally, the book explores an age-appropriate explanation of the stock market.

### **My Lemonade Stand** *(lesson on pages 89–93)*

#### Identifying Number Patterns

#### Reading Level 2.8

This reader concentrates on helping the students work with number patterns. The students will recognize, create, and continue various numerical patterns. This reader provides a simple, understandable context for the world of trade. In the text, there is a boy who is going to set up a lemonade stand. The boy has to make decisions concerning the planning, the recipe, the budget, and even advertising as he prepares to open the stand. The concepts of trading, income, and profit are made comprehensible through the tables, the problems that allow pattern finding, and the pictures.

# Reader Summaries *(cont.)*

## ***Shaping Our World and Shapes in Art***

### ***Shaping Our World*** (lesson on pages 108–112)

Classifying 2-D Shapes

Reading Level 3.4

This reader familiarizes students with two-dimensional (2-D) shapes by providing them with descriptions and real-life examples in the world around them. As students learn more about the shapes, they are also exposed to the key vocabulary terms that they need to understand in order to discuss 2-D shapes and solve problems related to them. In addition, this reader includes clearly labeled diagrams for the students to illustrate such concepts as congruence, dimension, symmetry, and angles. Students will even explore the various types of triangles and learn the specific vocabulary associated with triangles. The conclusion of the reader includes an interesting study of tessellation and patterns and allows the students to create their own tessellations.

### ***Shapes in Art*** (lesson on pages 113–117)

Classifying 2-D Shapes

Reading Level 2.5

This reader encompasses a focus on two-dimensional (2-D) shapes and uses the context of art to explore the different types of 2-D figures. While students learn mathematical concepts about shapes, they are also reading about the uses of these same shapes in different types of art. This reader exposes students to work created by artists such as Henri Matisse, Piet Mondrian, and Louise Nevelson. Through this context, the students also learn more about patterns and symmetry. Clearly labeled diagrams illustrate for the students such concepts as irregular shapes, tessellations, sides, and angles. The students also have a chance to learn about tangram art and how it can help them understand more about 2-D shapes.

# Reader Summaries *(cont.)*

## Shapes Around You and A Tour of New York City

### **Shapes Around You** *(lesson on pages 132–136)*

**Classifying 3-D Shapes**

**Reading Level 3.3**

This informative reader gives the students understanding of three-dimensional (3-D) shapes. It provides real-life photographic examples as well as labeled images of each of the most common 3-D shapes. The pictures are bright and offer clear connections between the concepts and the students' lives. Students will see how 3-D shapes are used in sports, architecture, and household objects. As each 3-D shape is described, relevant vocabulary is presented in easy-to-understand terms. Included 3-D terms are prisms, pyramids, cones, and cylinders.

### **A Tour of New York City** *(lesson on pages 137–141)*

**Classifying 3-D Shapes**

**Reading Level 2.7**

This reader gives the students background information about three-dimensional (3-D) shapes. The students will get a chance to better comprehend the concept of 3-D shapes as they also learn more about one of the more interesting cities in the world. The story begins with a boy who is vacationing with his uncle in New York City. As the story progresses, the boy and his uncle explore the city to find various 3-D shapes. The reader shows actual photographs of the buildings, statues, and objects that the pair finds around the city. In addition, the shapes are shown in 3-D illustrations so that students clearly make a connection between the models and the real-life images. The relevant vocabulary is clearly labeled for further comprehension of the concepts.

# Reader Summaries *(cont.)*

## ***Natural Measures and At the Fire Station***

### ***Natural Measures*** (lesson on pages 156–160)

Measuring Objects

Reading Level 3.2

This reader is designed to give students background in the history of measuring objects. The reader provides historical background and details how length, distance, volume, weight, and time were measured in the past. Students also learn how these processes have been made more accurate and standard throughout history. The students are introduced to many of the necessary terms for better understanding measurement, such as scale, perimeter, and ruler. This reader provides detailed photographs and images to help the students better comprehend the overall concept of measurement.

### ***At the Fire Station*** (lesson on pages 161–165)

Measuring Objects

Reading Level 2.7

This reader is designed to provide exposure on the mathematical concept of measurement. Through the situational context of fire fighting, students are provided with detailed photographs so they can better understand the history of fire fighting and how a precise understanding of measurement is important in the profession. The students learn about the concept of volume by exploring its connection to water. They learn about length by understanding the hoses used on fire engines. Weight is also explored through the use of hoses and firefighter gear. Under the thematic organization of the fire station, the students can explore the measurement concepts and appropriate vocabulary in an appealing way.

# Reader Summaries *(cont.)*

## Tracking Time and Timing Races

### **Tracking Time** *(lesson on pages 180–184)*

Measuring Time

Reading Level 3.2

This reader is designed to help students understand the measurement of time. It gives the students experiences and background in a challenging mathematical concept—calculation of elapsed time. The students begin by learning why the measurement of time is important. Then, they explore historical ways of measuring time as well as clocks throughout history. They are also provided with pictures of historic measurement tools such as water clocks, sundials, and shadow sticks. The text discusses why accuracy in measurement is also important. Other topics consist of calendar time and the standard units of time, such as seconds, minutes, and hours. The students are also introduced to the concept of time zones throughout the world.

### **Timing Races** *(lesson on pages 185–189)*

Measuring Time

Reading Level 2.6

Students will immediately be engaged by the reader because it thematically organizes the concepts of time within a premise of racing and competition. Specifically, students will explore measuring time through running and swimming competitions and learn about the situations surrounding these pastimes. Many of the *Let's Explore Math* boxes provide problems where students evaluate race times to see who was the fastest or calculate the total time of the race. As they explore the topic of time, they also have the chance to observe various time measurement techniques. In the context of sports, students realize why extreme accuracy in time measurement is vital to athletes.

# Reader Summaries *(cont.)*

## **Wildlife Scientists and At Risk!**

### **Wildlife Scientists** *(lesson on pages 204–208)*

#### Reading and Understanding Graphs

#### Reading Level 3.8

This reader helps students better understand reading and interpreting bar graphs, pictographs, charts, tables, and timelines. In the text, students are introduced to a specific scientist, Dr. Stirling, who is studying polar bears. As the reader progresses, students see charts to understand the population, weight, length, and litter-size data that Dr. Stirling is gathering. They are also introduced to Dr. Leakey and Dr. Goodall, who studied chimpanzees in Africa. During this section of the reader, students review the results of the population and weight data that Dr. Leakey and Dr. Goodall collected. Captivating photographs help students understand the types of tasks that these scientists engage in to gather data.

### **At Risk!** *(lesson on pages 209–213)*

#### Reading and Understanding Graphs

#### Reading Level 2.8

This reader exposes students to reading and understanding graphs. The text discusses the topic of endangered animals and what it means for an animal species to be extinct. Students receive specific information about endangered animals such as the Sumatran tiger, Ivory-billed woodpecker, northern white rhinoceros, and leatherback turtle. As students learn more about the animals featured in this reader, they will read and interpret various types of graphs and charts that show population data, weight information, and sighting numbers. With each graph, there are pictures that support the information and questions to help students process the information.