

Key Education Publishing
Keys to Math Success Grades K–1
“FUN” Standard-Based Activities to Boost the Math Skills of Struggling and Reluctant Learners

This book supports the NCTM Principles and Standards for School Mathematics

This book and the activities in it support the following Number and Operations Standard Expectations for Grades Pre-K--2:

1. **Students count and recognize the number of objects in a set.** Most sections of this book, in particular Number and Operations and Data Analysis and Probability, have activities that support this standard.
2. **Students use various representations to develop understanding of place value and the base-ten number system.** Students use place value charts and base-ten blocks to begin to understand place value.
3. **Students understand the relative position and size of ordinal and cardinal numbers.** Ordering and comparing activities in this book support this skill.
4. **Students develop whole number sense and use numbers in flexible ways, including relating, composing, and decomposing them.** Several activities in the Number and Operations section of this book support this standard.
5. **Students connect number words to numerals and to the quantities they represent using different physical representations.** Several activities in this book require students to connect number words to numerals and number words to sets.
6. **Students understand and represent common fractions, such as $\frac{1}{4}$, $\frac{1}{3}$, and $\frac{1}{2}$.** The Fractions section of this book helps students learn about these common fractions.
7. **Students understand the meanings of addition and subtraction of whole numbers and how the two operations relate to each other.** This book contains many addition and subtraction activities that support this standard.
8. **Students understand what happens when they add or subtract whole numbers.** This book contains many addition and subtraction activities that support this standard.
9. **Students understand situations that involve multiplication and division, such as equal groups of objects and sharing equally.** The Fractions section of this book includes an activity that involves showing equal groups of objects.
10. **Students use a variety of strategies for whole-number computation, focusing on addition and subtraction.** For the addition and subtraction activities in this book, students use a variety of strategies such as counting and taking away.
11. **Students use different methods and tools to compute, including concrete objects, mental math, estimation, paper and pencil, and calculators.** The addition and subtraction activities in this book teach methods such as using pictures and paper and pencil for addition and subtraction.

This product and the activities in it support the following Algebra Standard Expectations for Grades Pre-K--2:

1. **Students sort, classify, and order objects by a variety of properties.** This book includes number ordering activities and object sorting activities that support this standard.
2. **Students recognize, describe, and extend simple sound, shape, or numeric patterns and change patterns from one form to another.** In the Beginning Algebraic Thinking section of this book, students recognize and extend shape and numeric patterns.

- 3. Students show principles and properties of operations like commutativity using specific numbers.** An activity in the Beginning Algebraic Thinking section of this book introduces the commutative property of addition.
- 4. Students use concrete objects, pictures, and words to help them understand math symbols.** In the Beginning Algebraic Thinking section of this book, students do an activity that uses pictures to help them understand the meaning of the equal sign.
- 5. Students use objects, pictures, and symbols to model situations that involve the addition and subtraction of whole numbers.** In the Number and Operations and Beginning Algebraic Thinking sections of this book, students use pictures and symbols in the addition and subtraction of whole numbers.
- 6. Students can describe examples of qualitative change, like a student growing taller.** One activity in the Beginning Algebraic Thinking section of this book deals with qualitative change.

This product and the activities in it support the following Geometry Standard Expectations for Grades Pre-K–2:

- 1. Students identify, create, draw, compare, and sort two- and three-dimensional shapes.** Several activities in the Geometry section of this book support this standard.
- 2. Students describe characteristics and parts of two- and three-dimensional shapes.** In the Geometry section of this book, students learn about the numbers and characteristics of sides in two-dimensional shapes.
- 3. Students can interpret the relative position of objects.** Several activities in the Geometry section of this book deal with the relative position of objects.
- 4. Students describe, name, and interpret direction and distance and use ideas about direction and distance.** Several activities in the Geometry and measurement sections of this book deal with directional and distance concepts.
- 5. Students can find and name locations of objects using simple concepts such as “near to” and in coordinate systems like maps.** One activity each in the Geometry and Measurement sections of this book has students locate objects within a simple coordinate system.
- 6. Students can identify and create symmetrical shapes.** An activity in the Geometry section of this book has students identify symmetrical shapes.

This product and the activities in it support the following Measurement Standard Expectations for Grades Pre-K–2:

- 1. Students recognize the characteristics of length, volume, weight, area, and time.** The activities in the Measurement section of this book help students recognize length, volume, weight, and time.
- 2. Students compare and order objects according to length, volume, weight, area, and/or time.** This book includes length, volume, weight, and time comparison activities.
- 3. Students measure using standard and nonstandard units.** In this book, students measure with both standard and nonstandard units.
- 4. Students select appropriate units and tools for the things they are measuring.** The Measurement section of this book has several activities that deal with appropriate measurement units and tools.
- 5. Students measure with multiples of units of the same size, such as shoes, laid end to end.** This book

includes an activity where students measure different objects using paper clips.

6. **Students use a variety of tools to measure.** In this book, students learn to measure length, time, weight, and volume using a variety of tools.
7. **Students develop the ability to make measurement comparisons and estimates.** This book contains several measurement comparison and estimation activities.

This product and the activities in it support the following Data Analysis and Probability Standard Expectations for Grades Pre-K–2:

1. **Students can sort and group objects according to their characteristics and organize information about the objects.** The Data Analysis and Probability section of this book supports this standard.
2. **Students can show data using objects, pictures, and graphs.** In this book, students represent data using tally marks, bar graphs, and pictographs.
3. **Students can compare parts and whole of data to determine what the data shows.** Several activities in this set have students interpret data.