

# Operations and Algebraic Thinking

## Grade 4

### Vocabulary Words Your Student Will Learn

**Factor:** A number that is multiplied by another (factor x factor = product)

**Regrouping:** To exchange amounts of equal value to rename a number

**Expanded Form:** a graph that shows the frequency of data along a number line

**Multiple:** The product of a given whole number and another whole number

**Compare:** Tell how a number is related to another number using  $>$ ,  $<$ ,  $=$ , or different

**Array:** An arrangement of objects in rows and columns

**Identity Property:** (Any number times 1 is that number)

**Commutative Property:**  $5 \times 7$  is the same as  $7 \times 5$

**Associative Property:**  $(2 \times 3) \times 4 = 2 \times (3 \times 4)$

**Zero Property:** Any number times 0 is 0

**Product:** The answer to a multiplication problem

**Remainder:** The amount left over when a number cannot be divided equally

**Divisor:** The number that divides the dividend

**Dividend:** A number being divided

**Quotient:** the result of a division

**Estimate:** To find a number close to an exact amount

### What Your Student Will Learn:

- ◆ Interpret multiplication as comparison, for example, 35 is 5 times as many as 7.
- ◆ Multiply or divide to solve word problems
- ◆ Solve multi-step word problems using the four operations. Problems will include interpreting a remainder and/or using equations with a letter standing for the unknown.
- ◆ Find factor pairs for numbers to 100 and tell if numbers are prime or composite.
- ◆ Understand Patterns with numbers or shapes.

### Everyday Activities You Can Do At Home:

- ◆ Draw shapes and divide into different fractions
- ◆ Create numbers to use in fractions
- ◆ Use measuring cups when baking or cooking
- ◆ Pick numbers to create fractions-Practice simplifying them
- ◆ Make up numbers, roll numbers with dice, or find numbers (on labels) and compare them
- ◆ Find numbers and write them in expanded form
- ◆ Make numbers and tell which place value (and/or value) each digit represents
- ◆ Place large numbers on a number line
- ◆ Collect objects (i.e. Cheerios) and estimate how many
- ◆ Draw pictures and make models of numbers
- ◆ Practice addition and subtraction facts