

### Course Description:

Mathematics 1 (1 of 2) explores number sense and counting skills; operations such as addition and subtraction; measurement; geometry; and data collection. The topics include skip counting; composing and decomposing numbers; strategies for adding and subtracting; word problems; comparing and ordering lengths; identifying coins and their values; classifying two-dimensional shapes based on their attributes; understanding parts of a whole; and collecting data to create bar graphs and picture graphs.

### Course Objectives:

- Count by ones, fives, and tens to 120.
- Count by twos to 20.
- Count backward from 20.
- Count things by ones, twos, and fives.
- Count to 50 from a number less than 50.
- Read and write numbers up to 50.
- Show numbers up to 120 using things, pictures, and standard form.
- Show numbers up to 20 in expanded form.
- Find patterns in numbers and operations.
- Use the right tools to solve math problems.
- Use a symbol to show an unknown number in an equation.
- Show what the equal sign means.
- Find out if addition equations are true or false, then tell why.
- Show how to add and take away using things, pictures, and number sentences.
- Solve addition and subtraction equations within 20 in different ways.
- Break down and make numbers up to 10 to see how they add up and subtract.
- Easily add within 20.
- Easily subtract within 20.
- Figure out problems.
- Use math rules to solve problems.
- Tell how a problem can be solved.
- Check your work.
- Solve addition and subtraction word problems within 20 in different ways.
- Create problems where you add and subtract numbers that are 20 or less.
- Compare the lengths of three things, and order them by how long they are.
- Compare the lengths of two things using a third thing.
- Talk about a thing's length using a number of same-size things.
- Talk about regular flat shapes with informal words.
- Talk about shapes with formal words.
- Identify shapes.
- Find real-world objects that are modeled by shapes.
- Put flat shapes together to make a composite shape.
- Make shapes based on its properties.
- Break apart flat shapes into other shapes.
- Show which shapes are halves and fourths, and which aren't.

- Show what coins are pennies, nickels, dimes, and quarters.
- Tell how much pennies, nickels, dimes, and quarters are worth.
- Show how much coins are worth using the ¢ symbol.
- Write down data for up to three categories.
- Sort information in T-charts.
- Make bar and picture graphs with data.
- Answer questions using information from T-charts, bar graphs, and picture graphs.

### Required Materials:

Required:

- 50 counting objects (such as beans, beads, or buttons)
- cotton swabs or toothpicks
- crayons or colored pencils
- paper
- paper clips of the same size (for measuring the length of items)
- pencils
- printables (see Course Syllabus for link)
- printer and printer paper (for printables)
- scissors
- tape

### Course Overview:

This course is made up of 18 units. Each unit has five lessons. Lessons are made of up activities that include the following types of learning:

- **Warm-Ups** allow for practice of skills or concepts taught in previous lessons. These are graded activities.
- **Direct Instructions** provide modeling of new skills and concepts. These are not graded activities.
- **Guided Practices** allow for practice of a skill with support. These are graded activities only on a completion basis.
- **Independent Practices** allow for practice of a skill without support. These are graded activities.
- **Unit Reviews** allow for practice of skills prior to taking unit exams. These are not graded activities.
- **Unit Exams** test mastery of skills from the unit. These are graded activities.