

## Teaching Unit A (Continued)

### Math Background

#### Linear Measurement

In this unit, concepts and skills for linear measurement are developed together. Children will recreate rulers by drawing multiple copies of the same unit (1 cm) to form a line divided into 1-cm lengths. They will also divide and mark lines into 1-cm lengths and count the units to find the linear measure of the lines. These experiences will help children develop the basic idea of linear measurement as counting the number of times a standard unit fits along a length. Children will then move to using rulers where they will learn to accurately align the ruler, start counting units at zero, and focus on the number of 1-cm units along the length rather than only reading the numbers on the ruler. The emphasis on measuring by counting repeating units rather than reading numbers occurs in subsequent geometry units in this program. This conceptual focus enables children to be flexible problem solvers and to understand length as being made of units.



#### Attributes of Shapes

In Unit A, children will begin to refine and extend their understanding of two-dimensional shapes. They will see that squares and rectangles have “square corners” and that squares are a special type of rectangle with four sides equal in length. Children will also explore triangles, drawing many examples and identifying that they have a range of side lengths and angle sizes. Children will use their own vocabulary to describe these two-dimensional shapes but will be encouraged to gradually use conventional terminology.

#### Perimeter

In lessons 3 and 4 of Unit A, children will have an opportunity to develop informal ways of calculating perimeter of squares, rectangles, and triangles. For squares, class discussion will lead children to realize they only need to measure the length of one side to find the perimeter. For rectangles, children will be asked to share the various methods they developed for finding the perimeter. At this grade level, children are only expected to know that perimeter of a rectangle or a triangle is the sum of the side lengths; formulas will be introduced in subsequent years.

#### Rounding

While finding perimeter, the concept of rounding is introduced. Children will learn to round their measures to the nearest number on their rulers.