Math Background

Concept Building Activities

Linear Measurement In this unit, students are provided with an opportunity to further develop their skills in linear measurement. Using centimeter rulers, students will measure line segments and draw line segments with specified lengths. In the previous grade, the idea that linear measurement involves counting the number of times a standard unit fits along a length was developed. In this unit, students draw a collection of line segments from 1 cm to 6 cm marked in 1-cm lengths and then compare the line segments to a ruler to reinforce this idea.

Attributes of Quadrilaterals In previous grades, students investigated the properties of rectangles, squares, and parallelograms, with students primarily using their own vocabulary to describe the properties of these quadrilaterals. In this unit, the rhombus is added to the list of quadrilaterals and students see, hear, and use specialized vocabulary like parallel, perpendicular, opposite, and adjacent in descriptions of quadrilaterals. To help clarify the relationships between the different quadrilaterals, students draw, name, sort, and classify them. Activities include using a Venn diagram as a graphic organizer to sort quadrilaterals according to attributes or names or both. In this grade, students are expected to increase their knowledge about how geometric shapes are related to one another and begin to articulate geometric arguments about the properties of these shapes.

Perimeter In lessons 1, 3, and 4 of Unit A, students will calculate the perimeter of quadrilaterals and triangles using informal methods. In the previous grades, class discussion identified that only one side measure is needed to find the perimeter of a square. In this unit, students identify that opposite sides of a rectangle are equal, and students are expected to apply this knowledge to find the perimeter of a rectangle with only two side measures. Calculating perimeters of squares and rectangles with the least number of side measures is a goal of this unit, providing the conceptual foundation for formula development in subsequent years.

In lesson 4, students will draw rectangles for given perimeters and begin to look at the relationships between dimensions and perimeter of rectangles.