

Teaching Unit E (Continued)

Math Background

Congruent and Similar Figures

In Unit D, children identified figures that were the “same size and the same shape” while decomposing quadrilaterals. In this unit, children are formally introduced to the terms *congruent* and *similar*; they learn that all congruent figures are also similar figures. The activities on congruency prepare children for the transformation work later in the unit.

Classify 2-D Shapes

In this unit, children classify figures according to sorting rules like polygons/not polygons, quadrilaterals/not quadrilaterals, and regular/not regular, thus developing their ability to think analytically and observe similarities in structures of 2-dimensional figures.

Transformations

In this unit, children identify slides, flips, and turns of geometric figures and identify which of these transformations are used to create geometric patterns. Students also apply these transformations to extend geometric patterns.

Patterns

In the Pattern Day lesson, children create and extend repeating patterns, extend growing patterns, and create motion and rhythm patterns. These activities begin the important process of developing children’s ability to form generalizations. In subsequent years, children’s experiences with patterning will be extended to developing pattern rules that describe how patterns begin and how they continue.

Area

In the final lesson of this unit, children find area by counting square units (non-standard units) and then by counting square centimeters (standard units). Activities include finding areas of rectangles, areas of shapes composed of square units, and areas of unusual 2-dimensional shapes. These activities provide opportunities for children to develop their measurement and estimation skills further.

