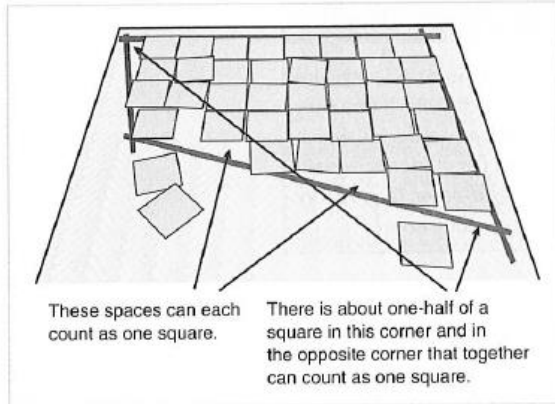


Figure 16.7

Measuring the area of a large shape drawn with tape on the floor. Units are cardstock squares of the same size.



Students can use units to measure surfaces in the room such as desktops, bulletin boards, and books. Large regions can be outlined with masking tape on the floor. Small regions can be duplicated on paper so that students can work at stations. Surfaces such as the surface of a watermelon or the outside of a wastebasket provide a connection of area in two dimensions to area in three dimensions (surface area).

In area measurements, there may be lots of units that only partially fit. You may wish to begin with shapes in which the units fit by building a shape with units, and drawing the outline. According to the *Common Core State Standards* (CCSSO, 2010), in third grade, students should begin to wrestle with partial units and mentally put together two or more partial units to count as one unit. Figure 16.7 shows one possible measurement exercise.

The following activity is a good starting point to see what ideas your students have about units of area.

Activity 16.9 COVER AND COMPARE

Draw two rectangles and a blob shape on a sheet of paper. Make it so that the three areas are not the same, but with no area that is clearly largest or smallest. The students' first task is to estimate which is the smallest and the largest of the three shapes. After recording their estimate, they should trace or glue the same two-dimensional unit on the shapes to decide. Students should explain in writing what they discovered.

From Van de Walle et. al. (2014). *Teaching Student-Centered Mathematics Grades: Developmentally Appropriate Instruction for Grades 3 – 5* (2nd Ed.). Toronto: Pearson Education, Inc. (p. 326).