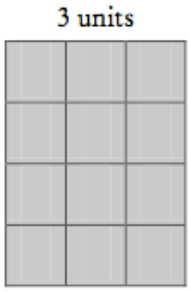
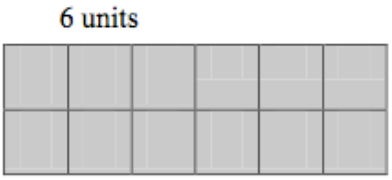
Third Grade Math Parent Letter - Module 4: Multiplication and Area

In this module, students explore area of two-dimensional figures and relate it to multiplication. At the beginning of the unit, students will learn to think about area as the amount of two-dimensional surface that is contained within a plane figure. They will begin to tile pattern blocks into the shapes of given polygons without gaps or overlaps to determine the amount of two-dimensional space within a shape. They will move to working with square units (square centimeters and square inches) to create rectangular arrays with the same area, but different side lengths. Students will begin to relate total area with multiplication of side lengths.

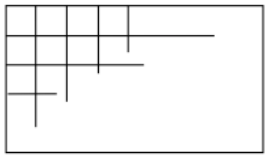


Area = 12 square units



Area = 12 square units

As the module continues, students progress from using square tile manipulatives to drawing their own area models. Anticipating the final structure of an array, they complete rows and columns in figures such as the example shown at the right.



Moving forward, students will work on cutting rectangular grids and rearranging the parts into new wholes to demonstrate that area stays the same, despite the new dimensions. They apply tiling and multiplication skills to determine different possibilities for the side lengths of rectangles given their areas.

As the module comes to a close, students will solve word problems that involve area. They will work with shapes like the one to the right. To find the area of the original shape, they will learn to find the area of each smaller region, and add or subtract to determine the total area. By doing so, students will be able to determine the area of rooms in a given floor plan.