Unit 2b-Connect Area To Multiplication And Addition

Content Area: **Mathematics**
Course(s): **Math 3**
Time Period: **Marking Period 2**
Length: **MP2 Topic 6 6-1 to 6-7**
Status: **Published**

Essential Questions

How does area connect to multiplication and addition?

Big Ideas

- Area As Covering- Students will study the concept of area as the number of unit squares needed to cover a region
- Relate Area To Multiplication And Addition-Students can use counting, repeated addition, or multiplication to find or estimate the number of unit squares that cover a region
- Area Of Irregular Rectiliner Figures- Students develop understanding that the area of a larger figure is equal to the sum of the areas of all its parts.

CSDT Technology Connection

8.1.5.CS.2: Model how computer software and hardware work together as a system to accomplish tasks

Enduring Understandings

Measurement & Data

C3.MD.C.5.A -A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.

3.MD.C.5.B -A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.

3.MD.C.6-Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units)

3.MD.C.7.A -Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

3.MD.C.7.B -Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

3.MD.C.7.C-Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of a × b and a × c. Use area models to represent the distributive property in mathematical reasoning.

3.MD.C.7.D- Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

Operations and Algebraic Thinking

3.OA.A.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations. 8 x ? = 48, 5=length divided by 3, 6 x 6 = ?

3.OA.C.7 Fluently multiply and divide within 100 using strategies such as the relationship between multiplication and division (knowing that 8 x 4 = 40, one knows 40 divided by 5 = 8) for properties of operation.

Mathematical Practices Practices

7. Look for and make use of structure.