# Unit 2b-Connect Area To Multiplication And Addition <br> Content Area: Mathematics <br> Course(s): Math 3 <br> Time Period: Marking Period 2 <br> Length: <br> Status: <br> MP2 Topic 6 6-1 to 6-7 <br> 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.


## 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 $\mathrm{b}+\mathrm{c}$ is the sum of $\mathrm{a} \times \mathrm{b}$ and $\mathrm{a} \times \mathrm{c}$. 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 nonoverlapping 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. $8 \times ?=48,5=$ length divided by $3,6 \times 6=$ ?
3.OA.C. 7 Fluently multiply and divide within 100 using strategies such as the relationship between multiplication and division (knowing that $8 \times 4=40$, one knows 40 divided by $5=8$ ) for properties of operation.

## Mathematical Practices Practices

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[^0]:    7. Look for and make use of structure.
