

## General Unit Plan Template

<b>Course: Unit Plan</b>	
Time (Month or Days): Jan. 3rd - Feb. 17th (34 days)	Unit: 3
Big ideas: Multiplication/ Area/Shapes	<p><b>Essential questions:</b></p> <p>How can we fluently multiply within 100?</p> <p>How can you solve problems that involve more than one step?</p> <p>How can you use multiplication and division facts to solve problems?</p> <p>How can you find the total number of objects in equal groups?</p> <p>What are arrays, and how do they show multiplication?</p>
<p><b>Prerequisite</b></p> <ul style="list-style-type: none"> <li>● Skip count</li> <li>● Equal groups</li> <li>● Add and subtract</li> </ul>	<p><b>Student learning targets:</b></p> <ol style="list-style-type: none"> <li><b>1. Use strategies to recall facts when needed.</b></li> <li>2. Describe patterns in addition and multiplication charts.</li> <li>3. Represent multiplication with equal groups.</li> <li>4. Represent multiplication with arrays.</li> <li><b>5. Tile to find the area of a rectangle.</b></li> <li>6. Measure the area of a shape by covering it with square units and counting the number of unit squares used. (3.md.6)</li> <li>7. Describe a square unit.</li> <li>8. Describe area as the measure of space within a plane figure</li> <li><b>9. Explain the relationship between tiling and multiplying side lengths to find the area of rectangles.</b></li> <li>10. Explain why area is measured in square units. (3.MD.5)</li> <li><b>11. Use area models to explain the commutative property.</b></li> <li><b>12. Use area models to explain the distributive property.</b></li> <li>13. Explain patterns in multiplication for example (even x even = even, odd x odd = odd, and odd x even =</li> </ol>

even) (3.OA.9)

14. Relate repeated addition to representations of multiplication. (3.OA.A.1)

15. Multiply one-digit numbers by 10.

16. Determine the unknown number in multiplication and division problems such as in the following examples:  $8 \times 9 = ?$ ,  $8 \times ? = 48$ ,  $? \times 3 = 27$ ,  $28 \div 7 = ?$ ,  $? \div 6 = 3$ , and  $35 \div ? = 7$ . (3.OA.A.4)

**17. Recall basic facts quickly.**

18. Use place value and properties to multiply multiples of 10 (e.g.,  $9 \times 80 = 9 \times (8 \times 10) = (9 \times 8) \times 10$ ; or  $9 \times 80 = (9 \times 50) + (9 \times 30)$ ). (3.NBT.3)

19. Explain how multiplication with multiples of 10 is related to basic facts. (e.g.  $4 \times 5 = 20$ ,  $4 \times 5$  tens = 20 tens, so  $4 \times 50 = 200$ ).

#### TEACHING AND TESTING STRATEGIES

**20. Represent a multiplication or division word problem with models, drawings, and equations.**

**21. Solve word problems with multiplication or division.**

**22. Use estimation or related facts to determine if answers are reasonable.**

Standards	Vocabulary	Skills	Activities (Resources)	Assessment
*3.OA.A.3- Use multiplication within 100 to	Equal groups Arrays, repeated addition, skip	Use multiplication, solve word		

solve word problems involving equal groups/arrays	counting, groups of, pattern, row, column	problems		
<b>*3.OA.C.7- Fluently multiply within 100</b>	<b>Factor, multiple, product, pattern, multiply</b>	<b>Fluently multiply</b>		
<b>*3.OA.D.8- Solve two-step word problems using multiplication</b>		<b>Solve two-step word problems</b>		
<b>3.MD.C.7- Relate area to multiplication and addition (area)</b>	<b>Area, quadrilateral, attribute, side length, square unit, tiling</b>	<b>Relate area</b>	<b>Area word problem</b>	
3.OA.A.1- Interpret products of whole numbers	<b>Whole number</b>	<b>Interpret products</b>		
3.OA.A.4- determine the unknown number in a multiplication equation 0	<b>Unknown number, equation</b>	<b>Determine the unknown number</b>		
3.NBT.3- multiply by multiples of 10		<b>Multiply by multiples</b>		
3.OA.B.5- apply properties	<b>Commutative property, zero property, identity property, associative property</b>	<b>Apply properties</b>		
3.OA.9- arithmetic patterns odd and even	<b>Odd, even</b>	<b>Determine odd and even</b>		
3.MD.5- concepts of area		<b>Understand the concept of area</b>		

3.MD.6- Counting unit squares		<b>Count square units</b>		
Instructional Dates: 34				