## Unit 2: The Relationship Between Multiplication and Division

## Content Standards

## Major Standards

Standard Ref
3.OA.A. 1 Interpret products of whole numbers, e.g., interpret $5 \times 7$ as the total number of objects in 5 groups of 7 objects each.
3.OA.A. 2 Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each.
3.OA.A. 3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
3.OA.A. 4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers.
3.OA.A. 6 Understand division as an unknown-factor problem.
3.OA.A. 7 Fluently multiply and divide within 100 , using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5=40$, one knows $40 \div 5=8$ ) or properties of operations. By the end of Grade 3 , know from memory all products of two one-digit numbers.
3.NBT. 3 Multiply one-digit whole numbers by multiples of 10 in the range $10-90$ (e.g.,

Time Frame: 4 Weeks (Sept. 8 - Oct. 2,2015)

## Standards for Mathematical Practice

(1) Make sense of problems and persevere in solving them.
(2) Reason abstractly and quantitatively.
(3) Construct viable arguments and critique the reasoning of others.
(4) Model with mathematics.
(5) Use appropriate tools strategically.
(6) Attend to precision.
(7) Look for and make use of structure.
(8) Look for and express regularity in repeated reasoning.

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$9 \times 80,5 \times 60$ ) using strategies based on place value and properties of operations.

## Supporting Standards

## Connections (3.OA.1-4)

This cluster is connected to the Third Grade Critical Area of Focus \#1, Developing understanding of multiplication and division and strategies for multiplication and division within 100 .

## Additional Standards

3.NBT.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

## Pre-requisite Standards

2.NBT.5-Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction
2.NBT.6-Add up to four two-digit numbers using strategies based on place value and properties of operations.

| Lesson 1 | Lesson 2 | Lesson 3 | Lesson 4 | Lesson 5 |
| :---: | :---: | :---: | :---: | :---: |
| Multiplication <br> 3.OA. 1 <br> Resource/Strategy <br> https://www.georgiastand <br> ards.org/ layouts/Georgia <br> Standards/UnitBuilder/DW <br> PublicPreview.aspx?WID=9 <br> 1\&obj=131566\&PageLayou | Division <br> 3.OA. 2 <br> Resource/Strategy <br> http://www.maccss.ncdpi. <br> wikispaces.net | Multiplication <br> 3.OA.3/3.OA. 7 <br> Resource/Strategy <br> http://www.ncpublicschoo <br> Is.org/curriculum/mathem <br> atics | Multiplication <br> 3.OA. 4 <br> Resource/Strategy <br> http://illustrativemathema <br> tics.org/ | Division <br> 3.0A. 6 <br> Resource/Strategy <br> http://www.mathworkshe <br> etland.com |

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