

NJDOE MODEL CURRICULUM

CONTENT AREA: Mathematics	GRADE: 3	UNIT: # 1	UNIT NAME: Represent and Solve Problems Involving Multiplication and Division
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#	STUDENT LEARNING OBJECTIVES	CORRESPONDING CCSS
1	Interpret products of whole numbers as repeated addition or equal groups of objects (up to 100).	3.OA.1
2	Explain division as a set of objects partitioned equally into a number of shares (up to 100).	3.OA.2
3	Determine the unknown in a division or multiplication equation with an unknown relating 3 whole numbers up to 100 (does not require students to solve from memory).	3.OA.4
4	Round whole numbers to the nearest 10 or 100.	3.NBT.1
5	Fluently add and subtract (with regrouping) two 2-digit whole numbers within 100.	3.NBT.2
6	Multiply one-digit whole numbers by multiples of 10 (10 - 90).	3.NBT.3
7	Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).	3.MD.6
8	Explain the relationship between tiling/multiplying side lengths to find the area of rectangles.	3.MD.7a,b

Major Supporting Additional (Identified by PARCC Model Content Frameworks).

Bold type indicates grade level fluency requirements. (Identified by PARCC Model Content Frameworks).

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Involving Multiplication and Division

Selected Opportunities for Connection to Mathematical Practices

1. Make sense of problems and persevere in solving them.

SLO #7 Use concrete objects or pictures to help conceptualize measures of area.

2. Reason abstractly and quantitatively.

3. Construct viable arguments and critique the reasoning of others.

SLO #7 Analyze measures of area by breaking them into unit squares

4. Model with mathematics.

SLO #7 Use and apply previously learned concepts about unit measurements to solve area measure problems.

5. Use appropriate tools strategically.

SLO #7 Consider available and appropriate tools, such as arrays, models, and drawings, when solving area measure problems.

SLO #6 Use concrete objects or pictures to help conceptualize measures of area.

6. Attend to precision.

7. Look for and make use of structure.

SLO #4 Fluently multiply and divide within 50, using the relationship between multiplication and division; e.g., if $44 \div 2$ equals 22, then 22×2 must equal 44.

SLO #8 Compare area measures (rectangles) by tiling and computing the product of the side lengths.

8. Look for and express regularity in repeated reasoning.

Bold type identifies possible starting points for connections to the SLOs in this unit.

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Code #	Common Core State Standards
3.OA.1	Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. <i>For example, describe a context in which a total number of objects can be expressed as 5×7.</i>
3.OA.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 object each. <i>For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.</i>
3.OA.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations: $8 \times ? = 48$, $5 = \square \div 3$, $6 \times 6 = ?$</i>
3.NBT.1	Use place value understanding to round whole numbers to the nearest 10 or 100.
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.
3.NBT.3	Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations.
3.MD.6	Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
3.MD.7a,b	Relate area to the operations of multiplication and addition. <ol style="list-style-type: none"> 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. 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.

Major Supporting Additional (Identified by PARCC Model Content Frameworks).

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