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| Standard: | | **3.0A.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.1**  **1See Common Core State Standards, Glossary, Table 2** | | | | | | | | | | | | | |
| Domain: | Operations and Algebraic Thinking | | | | | Cluster: | Represent and solve problems involving multiplication and division. | | | Grade: | | 3rd Grade | Target Type: | | R |
| Make sense of problems and persevere in solving them. | | | Reason abstractly and quantitatively. | Construct viable arguments and critique the reasoning of others. | Model with mathematics. | | | Use appropriate tools strategically. | Attend to precision. | | Look for and make use of structure. | | | Look for and express regularity in repeated reasoning. | |

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| Knowledge Target  (Prerequisite Skill or Underpinning) | Reasoning Target  (Mastery) | Performance Skill Target  (Mastery) | Product Target |
| Multiply and divide within 100. | Solve word problems in situations involving equal groups, arrays, and measurement quantities.  Represent a word problem using a picture, an equation with a symbol for the unknown number, or in other ways. |  |  |
| **Formative Pre-assessment** | **Student Learning Target** | | **Formative Assessment** |
| 1. There are 3 rows of apples with 6 apples in each row. How many apples are there? 2. If 18 apples are arranged into equal rows of 6 apples. How many rows will there be? | 1. I can multiply within 100.(K) 2. I can divide within 100(K) 3. I can solve word problems involving equal groups, arrays, and measurement quantities.(R) 4. I can identify key words in word problems (multiplication).(K) 5. I can solve a word problem using a picture.(R) 6. I can solve a word problem with an equation with a symbol for the unknown number.(R) 7. I can identify key words to solve a division problem.(K) 8. I can identify the variables in an equation.(R)   I can draw arrays.(S) | | 1. Tim’s class has 5 groups of desks. Each group has 4 desks. Write the multiplication equation that illustrates this and solve. 2. Draw a 4×9 array. Write one of the related division equations for this array. 3. There are 14 customers standing in 2 checkout lanes. Each lane had the same number of customers. How many customers are in each lane? Write the related equation. 4. Alex is a dog that gets in trouble 3 times a day. At the end of the week, how many times does he get in trouble? Write the related equation. Highlight the key words in the problem. 5. Illustrate and solve the following:  * Sara has planted a flower garden. She has 3 rows with 4 flowers in each row. How many flowers altogether?  1. There are some students at recess. The teacher divides the class into 4 lines with 6 students in each line. Write a division equation to determine how many students are in the class (? ÷ 4= 6). 2. There are 4 bananas, 3 pears, and 5 apples. If an equal number of fruit is placed in 4 baskets, how many pieces will be in each basket? 3. An ostrich egg weighs 4 pounds. The total weight of the eggs in a nest I 28 pounds. Write an equation using a variable and solve to determine the number of eggs in the nest. 4. Use an array to solve the following: there are 3 spiders. Each has eight legs. How many legs are there in all? |
| **Critical Content Vocabulary** | | **Suggested Strategies/Activities** | **Instructional Resources** |
| Dividend Variable  Multiply (multiplication) Product  Divisor Array  Divide (division) Quotient  Factor Fact Family | | * Students work in small groups, using manipulatives, to act out multiplication/division situations. Students draw pictures to represent the actions and record the equations. * Students use colored dot labels to illustrate and solve multiplication/division word problems. Then write the corresponding equation to show the solutions. * Roll two number cubes and write multiplication equation (roll 3 & 2; write 3 × 2 = 6). Then write the related division fact (6 ÷ 3 = 2). | * Colored dot stickers * Number cubes * [www.knowledgeadventure.com](http://www.knowledgeadventure.com) * [www.ixl.com/math](http://www.ixl.com/math) * [www.math-aids.com](http://www.math-aids.com) * [www.superteachers.com](http://www.superteachers.com) |