**Grade: 3 Unit: 3 Understanding Multiplication and Developing Multiplication Fact Strategies and Fluency**

Critical Area: Developing understanding of multiplication and multiplication strategies within 100

Standards Addressed: CC.3.OA.1, CC.3.OA.3, CC.3.OA.4, CC.3.OA.5, CC.3.OA.7, CC.3.OA.8, CC.3.OA.9,CC.3.NBT.2, CC.3.NBT.3

Focus Mathematical Practices:

* Reason abstractly and quantitatively;
* Look for and express regularity in repeated reasoning;
* Construct viable arguments and critique the reasoning of others;
* Look for and make use of structure;
* Make sense of problems and persevere in solving them;
* Use appropriate tools strategically

**To Be Completed on or about: December 13th**

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| Prerequisites | Targets | Extensions |
|  | Develop the understanding of multiplication through skip counting and arrays to show equal groups of objectsModel and skip count on a number lineWrite an addition sentence for the modelRelate the addition sentence to a multiplication sentence for the model |  |
|  | Solve one- and two-step word problems in situations involving equal groups, arrays, and measurement quantities, by using the strategy “draw a diagram”Solve one- and two-step word problems in situations involving equal groups, arrays, and measurement quantities, by using the strategy “Make a Table” and “Draw a Diagram”Represent the problem solution using equations with a symbol for the unknown number to represent the problemUse an array or multiplication table to find an unknown factorAssess the reasonableness of the answers  |  |
|  | Model and use the Commutative Property of Multiplication to find productsModel and use the Multiplication Property of Zero and Identity Property and to find productsModel and use the Associative Property of Multiplication to multiply three factorsModel and use the Distributive Property to find products by breaking apart arraysModel and record multiplication with multiples of ten by using base ten blocks, a number line, or place value  |  |
|  | Identify and explain arithmetic patterns on the multiplication table or function table using properties of operationsModel Strategies for multiplication fluency within 100 of two one-digit numbers:* multiply by 2 and 4 by doubling or skip counting
* multiply by 5 and 10 by skip counting, using a number line, a bar model, or the ten rule of adding a zero to the identity rule
* multiply by 3 and 6 by using the 2 and 5 facts with addition of one more group, drawing a picture, skip counting or using a multiplication table
* multiply by 7 by using the Commutative or Distributive Property (x5 + x2 ) or known facts
* multiply by 8 by using doubles, a number line, or the Associative Property of Multiplication
* Multiply by 9 by using the Distributive Property with addition (x5 + x4) or subtraction (x10 – x1)
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