**Grade: 5 Unit: 7 Multiply Fractions**

### **Critical Area:** Developing fluency with addition and subtraction of fractions and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions)

***Standards Addressed:*** *5.NF.4, 5.NF.5 & 5.N.F. 6*

### **Focus Mathematical Practices:**

* MP.3 Construct viable arguments and critique the reasoning of others.
* MP.5 Use appropriate tools strategically.

To be completed on or about:

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| Prerequisites | Targets | Extensions |
| Prior Learning: | Apply and extend previous understandings of multiplication to multiply a fraction or a whole number by a fraction.  a.) Interpret the product (a/b) x q as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations a x q divided by b.  b.) Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.  N.F. 4 |  |
|  | Interpret multiplication as scaling (resizing), by:  a.) Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.  b.) Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number ( recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction leass than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence a/b – (n x a)/(n x b) to the effect of multiplying a/b x 1.  N.F. 5 |  |
|  | Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.  N.F. 6 |  |