**Grade: 4 Unit: 7 Multiply Fractions by Whole Numbers & Relating Fractions and**

**Decimals**

### **Critical Area:** Developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers.

***Standards Addressed:*** *4.NF.4, 4.NF.5, 4.NF.6, 4.NF.7, 4.MD.2 (Chapters 8 & 9 in Go Math)*

### **Focus Mathematical Practices:**

* MP.2 Reason abstractly and quantitatively.
* MP.7 Look for and make use of structure.
* MP.8 Look for and express regularity in repeated reasoning.

To be completed on or about:

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| Prerequisites | Targets | Extensions |
| Prior Learning: Last year students used place value to round to nearest 10 or 100 and fluently add and subtract to 1000. | Write a fraction as a product of a whole number and a unit fraction (1/b).  Write a product of a whole number and a fraction as a product of a whole number and a unit fraction.  Multiply a fraction or mixed number by a whole number to solve a problem and use a model and equation to represent and solve it. |  |
|  | Use the strategy of drawing a diagram to solve comparison problems with fractions. |  |
|  | Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.2 *For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100*. |  |
|  | Use decimal notation for fractions with denominators 10 or 100. *For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram*. |  |
|  | Compare two decimals to hundredths by reasoning about their size.  Recognize that comparisons are valid only when the two decimals refer to the same whole.  Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model. |  |
|  | Translate among representations of fractions, decimals and money. |  |
|  | Solve money problems by using the strategy of acting it out. |  |