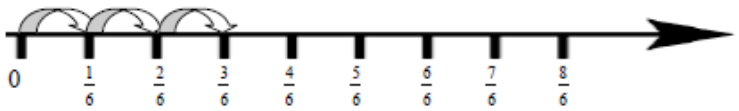
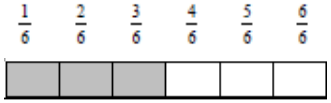
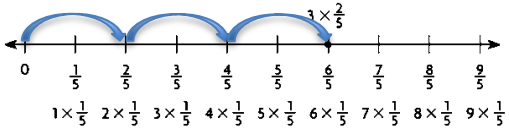
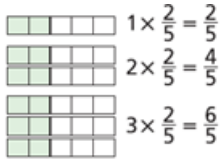
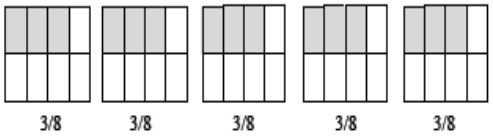
Grade 4

Exploring Multiplication of Whole Numbers and Fractions

Overarching Student Learning Goals In this unit, your child will work to build an understanding of the following:	**Resources/Tasks to support your child at home.**
Students can decompose fractions as products of unit fractions *(Note: Fractions in 4th grade are limited to fractions with denominators of 2,3,4,5,6,8,10,12, and 100.)* Example(s): $\frac{3}{6} = \frac{1}{6} + \frac{1}{6} + \frac{1}{6}$, or 3 groups of $\frac{1}{6}$, can be represented as $3 \times \frac{1}{6}$. Number line:  Area model:  	• Next time you order pizza for dinner, count the number of slices. What fraction does each slice represent? ($\frac{1}{8}$ if there are 8 slices in the pie.) How would I represent the whole pie? ($\frac{8}{8}$) Ask your child questions such as, "If I ate 5 slices, how much did I eat and how can I write that as a fraction multiplication problem?" ($5 \times \frac{1}{8} = \frac{5}{8}$) • Khan Academy: Multiply Whole Number by a Unit Fraction Practice https://goo.gl/iRP2yL • LearnZillion: Represent Fractions as a Sum of Unit Fractions http://bit.ly/2q6yTXz • LearnZillion: Use a Fraction Model for Multiplication of Fractions and Whole Numbers http://bit.ly/2SenwcU
Students can model whole-number equal groups of fractions Example(s): $3 \times \frac{2}{5}$, or 3 groups of $\frac{2}{5}$, can be represented as $\frac{2}{5} + \frac{2}{5} + \frac{2}{5} = \frac{6}{5}$.   	• Ask your child to take a recipe and multiply the ingredients to make a larger portion of the recipe. • Khan Academy: Multiply Fractions by Whole Numbers https://goo.gl/eAs7Xp • XP Math: Multiply fractions by Whole Numbers… http://goo.gl/qY3S0y • LearnZillion: Multiply Fractions by Whole Numbers by Using Models http://bit.ly/2PTc4lg

For more information on the learning goals and your child's progress, please contact your child's teacher.

Grade 4

Students can solve multiplication of fractions word problems by using visual models Example: If each person at a party eats 3/8 of a pound of roast beef, and there are 5 people at the party, how many pounds of roast beef are needed? Between what two whole numbers does your answer lie? A student may build a fraction model to represent this problem:  $5 \times \frac{3}{8} = \frac{15}{8} = 1\frac{7}{8}$ pounds, which is between the whole numbers 1 and 2.	• LearnZillion: Multiply by Fractions Using Repeated Addition http://bit.ly/2O5V7CC