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| ***IMPORTANT CONCEPTS YOUR STUDENT SHOULD KNOW AND ACTIVITIES TO DO AT HOME*** | |
| **Unit Title: Fractions** | |
| **Important Concepts Addressed in this Unit** | |
| **MGSE3.NF.1 Understand a fraction 1 𝑏 as the quantity formed by 1 part when a whole is partitioned into b equal parts (unit fraction); understand a fraction 𝑎 𝑏 as the quantity formed by a parts of size 1 𝑏 . For example, 3/4 means there are three 1/4 parts, so 3/4 = 1/4 + 1/4 + 1/4 .**  **MGSE3.NF.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram. a. Represent a fraction 1 𝑏 on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size 1 𝑏 . Recognize that a unit fraction 1 𝑏 is located 1 𝑏 whole unit from 0 on the number line. b. Represent a non-unit fraction 𝑎 𝑏 on a number line diagram by marking off a lengths of 1 𝑏 (unit fractions) from 0. Recognize that the resulting interval has size 𝑎 𝑏 and that its endpoint locates the non-unit fraction 𝑎 𝑏 on the number line.**  **MGSE3.NF.3 Explain equivalence of fractions through reasoning with visual fraction models. Compare fractions by reasoning about their size. a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line. b. Recognize**  **Examples: Express 3 in the form 3 = 6/2 (3 wholes is equal to six halves); recognize that 3 /1 = 3; locate 4 /4 and 1 at the same point of a number line diagram. d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.** | **and generate simple equivalent fractions with denominators of 2, 3, 4, 6, and 8, e.g., 1 2 = 2 4 , 4 6 = 2**  **3 . Explain why the fractions are equivalent, e.g., by using a visual fraction model. c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.**  **MGSE3.MD.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.**  **MGSE3.MD.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.** |
| **Key Words To Know** | **How You Can Help Your Student** |
| unit fraction picture graph halves  partition fourths sixths line plot  equivalent number line fraction bar  numerator denominator equivalent  equal parts eighths quarters  compare bar graph whole thirds | **Interactive Learning Games:** Playing games is a wonderful way to practice facts at home in a fun environment**.**  **Web-based**  [www.multiplication.com](http://www.multiplication.com)  [www.reflexmath.com](http://www.reflexmath.com)  [www.mathfactcafe.com](http://www.mathfactcafe.com)  [www.factmonster.com](http://www.factmonster.com)  <https://www.mathgames.com/fractions>  <https://www.ixl.com/math/fractions> (10 free questions per day).  **Hands-on**  Flash cards  Dice- roll and multiply  Playing cards- flip and multiply (WAR)  **Helping your student gain fact fluency will greatly improve their speed and accuracy for classroom assignments.** |

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| **Sample Problems** |
| 1. This figure was partitioned/divided into eight equal parts. Each part is 1/8 of the total area of the figure.    Given a shape, students partition it into equal parts, recognizing that these parts all have the same area. They identify the fractional name of each part and are able to partition a shape into parts with equal areas in several different ways.  2 . Measure lengths marked with halves and fourths of an inch. Show the data using a line plot. |