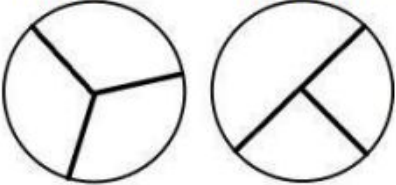
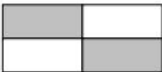

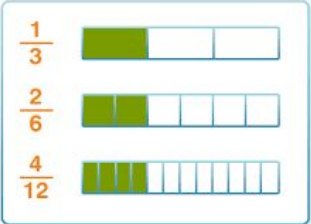
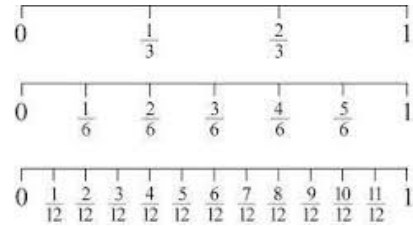


Grade 3 Unit 4 Family Resource
Unit Name: Deepening Understanding of Fractions

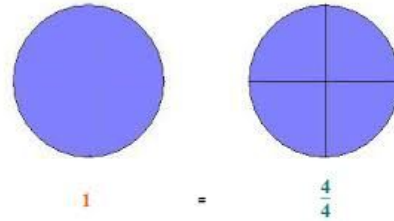
What's my child learning in Unit 4?	What does this mean? What does it look like?	How can I help my child at home?
<p>Students will understand that a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.</p>	<p>Some important concepts related to developing understanding of fractions include:</p> <ul style="list-style-type: none"> • Understand fractional parts must be equal-sized <p style="text-align: center;"> Example Non-example </p> <div style="text-align: center;">  </div> <ul style="list-style-type: none"> • The number of equal parts tell how many make a whole. • As the number of equal pieces in the whole increases, the size of the fractional pieces decreases. The size of the fractional part is relative to the whole. <ul style="list-style-type: none"> ○ The number of children in one-half of a classroom is different than the number of children in one-half of a school. (the whole in each set is different therefore the half in each set will be different) • When a whole is cut into equal parts, the denominator represents the number of equal parts. • The numerator of a fraction is the count of the number of equal parts. <ul style="list-style-type: none"> ○ $\frac{3}{4}$ means that there are 3 one-fourths. ○ Students can count one fourth, two fourths, three fourths. <p>Students express fractions as —fair sharing, parts of a whole, and parts of a set. They use various contexts (candy bars, fruit, and cakes) and a variety of models (circles, squares, rectangles, fraction bars, and number lines) to develop understanding of fractions and represent fractions. Students need many opportunities to solve word problems that require fair sharing.</p> <p>To develop understanding of fair shares, students first participate in situations where the number of objects is greater than the number of children and then progress into situations</p>	<p>Lego Activity for Fractions - This activity is used with legos to develop a better understanding of fractions in a set.</p> <p>Sand Dollar Exchange - This is an online game to practice identifying fractions with the correct model (sand dollar). NOTE: Player must use the arrow keys to move the crab.</p> <p>Virtual Manipulatives - Explore online fraction tools including fraction tiles and circles.</p>

	<p>where the number of objects is less than the number of children.</p> <p>Examples: (Area or Region Model)</p> <ul style="list-style-type: none"> • Four children share six brownies so that each child receives a fair share. How many brownies will each child receive? • Six children share four brownies so that each child receives a fair share. What portion of each brownie will each child receive? • What fraction of the rectangle is shaded? How might you draw the rectangle in another way but with the same fraction shaded?  <p>Solution: $\frac{2}{4}$ or $\frac{1}{2}$</p> <p>What fraction does the letter a represent? (Linear Model) Explain your thinking.</p> 	
<p>Students will apply their understanding of a unit fraction in order to count by unit fractions.</p>	<p>Students should be able to count 3 pieces of $\frac{1}{4}$ as $\frac{1}{4} + \frac{1}{4} + \frac{1}{4}$ or $\frac{3}{4}$ and recognize that as the distance from 0 to a point on the number line).</p>	<p>Explanation of Basic Fractions - A visual to help families understand how shapes are partitioned into equal parts and identified as a/b.</p> <p>Tutorial on Understanding a Fraction - This tutorial explains basic fractions and how fractions are represented as a/b. In addition it explains the use common vocabulary words associated with fractions.</p>
<p>Students will understand if two fractions represent the same size or are located at the same point on a number line they are equivalent. (denominators of 2, 3, 4, 6, and 8)</p> <p>Students will use models to recognize and generate</p>	 <p>Equivalent fractions</p>	<p>Online Fraction Number Lines - Use these interactive number lines to find equivalent fractions and compare fractions.</p>

simple equivalent fractions by using a visual model.



Students will express whole numbers as fractions and recognize fractions that are equivalent to whole numbers.



["Equivalent Fractions Splat"](#) - Match the given fraction to another fraction that is equivalent.

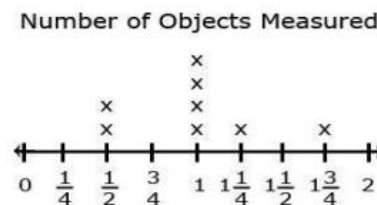
Students will use rulers to generate measurement data by measuring lengths and show the data in a line plot using wholes and halves to answer questions and solve problems.

Measure objects in your desk to the nearest $\frac{1}{2}$ or $\frac{1}{4}$ of an inch, display data collected on a line plot. How many objects measured $\frac{1}{4}$? $\frac{1}{2}$? etc...

Some important ideas related to measuring with a ruler are:

- The starting point of where one places a ruler to begin measuring
- Measuring is approximate. Items that students measure will not always measure exactly $\frac{1}{4}$, $\frac{1}{2}$ or one whole inch. Students will need to decide on an appropriate estimate length.
- Making paper rulers and folding to find the half and quarter marks will help students develop a stronger understanding of measuring length

Students generate data by measuring and create a line plot to display their findings. An example of a line plot is shown below:



[Points on a Ruler Activity](#) -Practice identifying various lengths on a ruler using this online activity.

[Measuring Activity Online](#) - Students use a ruler to find the length of various lines to the nearest inch, half inch, or quarter inch.