



Grade 3 Parent Newsletter

Theme 3 Unit 10

Dear Parents,

Your third grader will be exploring and developing understanding of equivalent fractions. This is the first time third graders are officially introduced to equivalent fractions as equal areas of visual models and locations on a number line. Prior to this unit students worked with counting unit fractions on a number line. In this unit, students will come to understand how to use number lines and models to show two fractions are equivalent. The use of procedures and algorithms are not used in third grade. Students will also extend their understanding of equivalence in whole numbers to fractional amounts. Students will explore that when the numerator and denominator are the same the value is one whole. ($6/6=1$, $8/8 = 1$). They will also investigate that when the denominator is 1, the fraction represents wholes ($8/1=8$, $5/1=5$). Furthermore students will make connections using number lines and models to show you can rename fractions greater than 1 with equivalent fractions ($12/4 = 3$, $10/2=5$). Students are likely to struggle with understanding that the numerator of a fraction can be greater than the denominator. Fraction denominators are limited to 1, 2,3,4,6 and 8.

Thank you for your continued support,
Your Child's 3rd Grade Teacher

How can you help your child be successful in mathematics?

Children learn math best when they can connect math concepts and procedures to their everyday experience.

- Be positive about math! Let your child know that everyone can learn math.
- Point out how math is used in daily activities.
- Include your child in activities that involve math, such as making purchases, measuring ingredients, determining elapsed time, *etc.*
- Play math-related games with your child.
- Encourage your child to explain his/her thinking when solving problems.
- Count everything with young mathematicians.
- Make connections between real world situations involving fractions.

When a math moment presents itself, make the most of it!

Vocabulary

Equivalent Fractions: two or more fractions that name the same part of a whole or the same point on a number line.

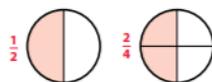
Fractions: are numbers that describe equal parts of a whole.

Denominator: the bottom number in a fraction. It tells how many equal parts are in the whole.

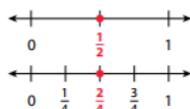
Numerator: the top number in a fraction. It tells how many parts you have.

Two fractions are equal if they name the same amount of the whole. Different fractions that name the same amount of the whole are called **equivalent fractions**.

Look at the circles. The same amount is shaded in each circle. Each circle is divided into a different number of equal parts. So, the fractions used to name the shaded parts are different, $\frac{1}{2}$ and $\frac{2}{4}$, but equivalent.



You can also see equivalent fractions using a number line. $\frac{1}{2}$ and $\frac{2}{4}$ are located at the same point on the number line. This shows they are equivalent.



Think about it!

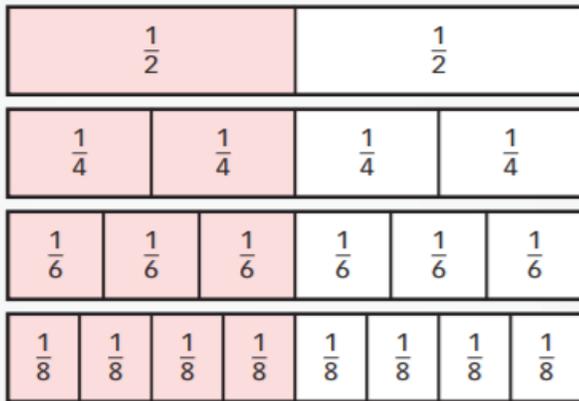
Kacey used 2 boards of the same size to build a birdhouse. He cut each board into fourths. How can you write the number 2 as a fraction to find how many fourths Kacey divided the boards into?



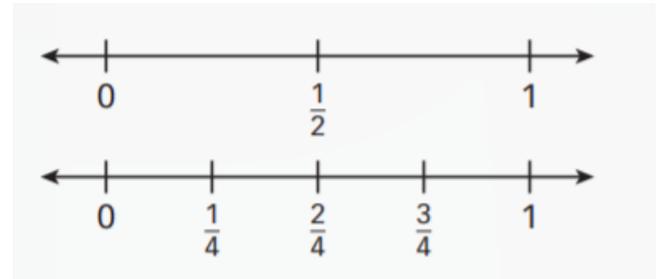


Strategies to Support Student Learning

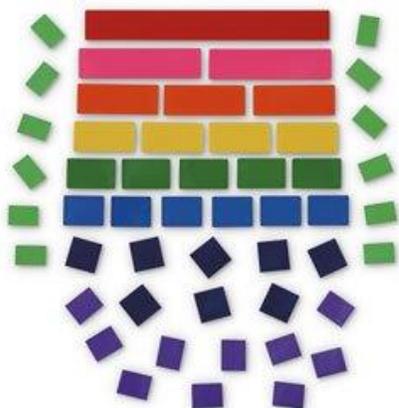
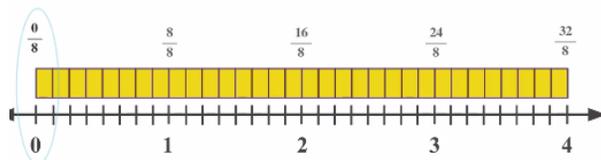
Partitioning area models to show two fractions are equivalent because they cover the same amount of the same size whole.



Partitioning a number line to show equivalent fractions.

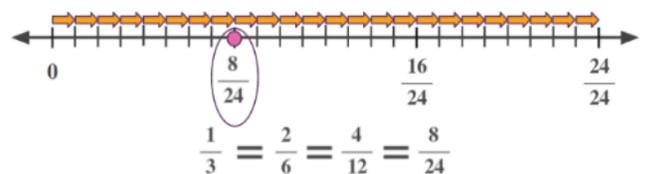


Use fraction towers and number lines to develop a conceptual understanding of equivalent fractions for whole numbers.



Repeated Partitioning of an area model and a number line to represent equivalent fractions in infinite ways.

$$\frac{1}{2} = \frac{2}{4} = \frac{4}{8} = \frac{8}{16} = \frac{16}{32} = \frac{32}{64}$$





Activities to Support Home-to-School Connection

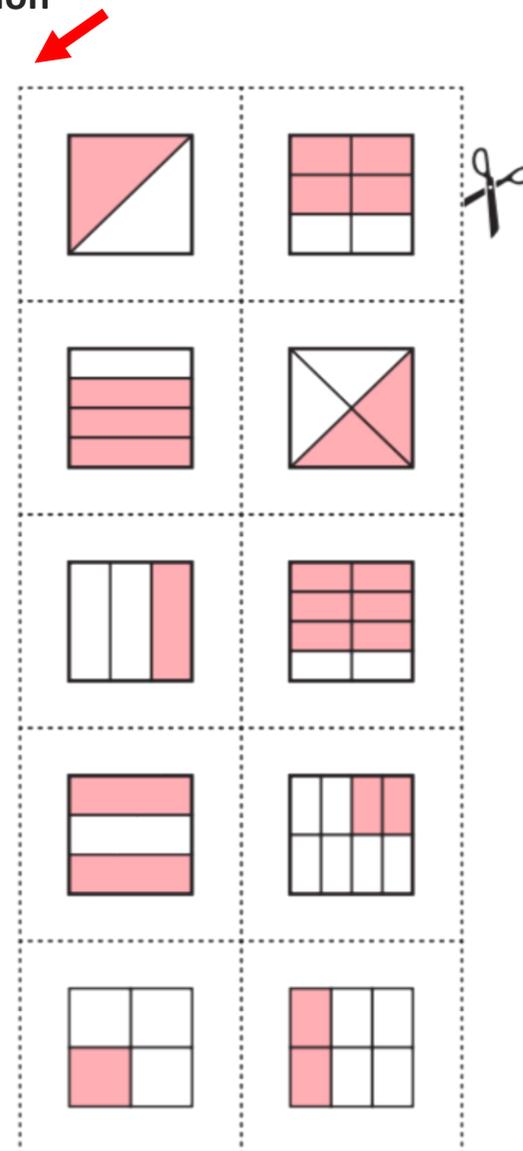
Taken from Ready Common Core

Equivalent Fraction Activity

Materials: Cards below, scissors

Play this matching game to practice recognizing equivalent fractions.

- Cut out the cards below and color the backs.
- Mix the cards and place them face down in two rows.
- Take turns.
- On your turn, flip 2 cards. Name the fractions.
- If the cards show equivalent fractions, keep them. If they are not equivalent, turn them back over in the same places as before.
- When all the equivalent fractions have been found, the player with the most cards is the winner.
- As you play, ask your child questions like:
 - If you keep the cards, how do you know the fractions are equivalent?
 - If you need to turn them back over, how do you know the fractions are not equivalent?





Real World Connections

Fractions

Fraction Fruit

Materials: two pieces of fruit that are the same size

Cut each piece of fruit into halves in two different ways. For example, if you have two lemons, cut one lemon in half the long way, and the other in half the short way. Compare halves from each lemon. Emphasize that each half is the same amount, only the shapes are different.

Equivalent Fractions with Sandwiches

Consider have similar discussions with cutting a whole sandwich into equal parts.

Write a fraction to represent the whole sandwich before you cut it? $(1/1)$

Write a fraction to represent the whole sandwich when you cut it into 2 equal parts? $(2/2)$

Write a fraction to represent the whole sandwich when you cut it into 4 equal parts? $(4/4)$

Extend this to how would the fractions change if we had two whole sandwiches.

Write a fraction to represent the two whole sandwiches before you cut it? $(2/1)$

Write a fraction to represent the whole sandwiches when you cut it into 2 equal parts? $(4/2)$

Write a fraction to represent the whole sandwiches when you cut it into 4 equal parts? $(8/4)$