

Unit #3: Math - Number and Operations- Fractions (Grade 3)

Content Area: **Mathematics**
Course(s): **Math 3**
Time Period: **Marking Period 2**
Length: **January- March**
Status: **Published**

Established Goals/Standards

Please choose the appropriate Goals/Standards from the Standards tab above.

MA.3.OA.A.3	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
MA.3.NF.A.1	Understand 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 $1/b$.
MA.3.NF.A.2	Understand a fraction as a number on the number line; represent fractions on a number line diagram.
MA.3.NF.A.2a	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 $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line.
MA.3.NF.A.2b	Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.
MA.3.NF.A.3a	Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
MA.3.NF.A.3b	Recognize and generate simple equivalent fractions (e.g., $1/2 = 2/4$, $4/6 = 2/3$). Explain why the fractions are equivalent, e.g., by using a visual fraction model.
MA.3.NF.A.3c	Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.
MA.3.NF.A.3d	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.

Essential Questions

Please add your Essential Questions by clicking on the Lists tab above.

- How can different fractions name the same part of a whole?
- How can number lines be used to find fractions?
- What are different interpretations of a fraction?
- What are different ways to compare fractions?

Enduring Understanding

Please add your Enduring Understandings by clicking on the Lists tab above.

- A fraction describes the division of a whole (region, set, segment) into equal parts.
- Fractions can be compared to each other by comparing them to benchmark numbers such as 0, one half, and 1
- If two fractions have the same denominator, the fraction with the greater numerator is the greater fraction. If two fractions have the same numerator, the fraction with the lesser denominator is the greater fraction.
- Models, number lines, and multiplication and division can be used to find different fractions to name the same part of a whole.
- Some points between whole numbers on a number line can be labeled with fractions or mixed numbers. The denominator can be determined by counting the number of equal parts between two consecutive whole numbers.

Content

Students will be able to:

- identify regions that have been divided into equal-sized parts and divide regions into equal-sized parts
- associate the model, symbol, and words used to describe a fractional part of a whole region or a fractional part of a set
- find fractional parts of a set
- identify fractional parts and mixed numbers on a number line
- use benchmark fractions to estimate fractional parts
- associate the model, symbol, and words used to describe a fractional part of the length of an object
- make a table and look for a pattern to solve a problem
- use models and quantitative reason to compare fractions with the same denominator
- use models and reasoning to compare fractions with the same numerator
- use benchmark numbers to compare fractions with the same numerator or the same denominator
- use number lines to compare fractions with like denominators or like numerators
- use models to find equivalent fractions
- use number lines to identify equivalent fractions
- use fraction strips and number lines to find fraction names for whole numbers
- compare and order fractions to solve problems
- draw a picture to solve problems

Vocabulary students will know:

halves

thirds

fourths

fifths

sixths

eighths

tenths

twelfths

fraction

unit fraction

numerator

denominator

mixed numbers

benchmark fractions

equivalent fractions

simplest form

Resources

Envision Resources

- www.pearsonsuccessnet.com
- textbook
- student online resources
- Daily Common Core Review
- Quick Checks
- Reteaching/Practice
- Math Centers
- fraction strips

Online Games from teacher website