

Unit 2d-Understand Fractions As Numbers

Content Area: **Mathematics**
Course(s): **Math 3**
Time Period: **Marking Period 2**
Length: **MP2 Topic 12 12-1 to 12-8**
Status: **Published**

Essential Questions

- What are different interpretations of a fraction?

Big Ideas

- **Build on the Concept of Unit Fractions-** Students understand that fractions are parts of a whole.
- **Fraction Representations-** Fraction concepts are developed and reinforced using diagrams of positioned regions, fraction bars, and number lines.

CSDT Technology Connection

8.1.5.IC.1: Identify computing technologies that have impacted how individuals live and work and describe the factors that influenced the changes.

Enduring Understandings

Number and Operations—Fractions

3.NF.A [M] Develop understanding of fractions as numbers

3.NF.A.1 Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$.

3.NF.A.2a Understand a fraction as a number on the number line; represent fractions on a number line diagram

a. Represent a fraction $\frac{1}{b}$ 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 $\frac{1}{b}$ and that the endpoint of the part based at 0 locates the number $\frac{1}{b}$ on the number line.

3.NF.A.2b Represent a fraction $\frac{a}{b}$ on a number line diagram by marking off a lengths $\frac{1}{b}$ from 0. Recognize that the resulting interval has size $\frac{a}{b}$ and that its endpoint locates the number $\frac{a}{b}$ on the number line

3.NF.A.3.c Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form $3 = \frac{3}{1}$; recognize that $\frac{6}{1} = 6$; locate $\frac{4}{4}$ and 1 at the same point of

a number line diagram.

Measurement and Data

3.MD.B.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.

Geometry

3.G.A.2- Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole

Mathematical Practices Focus

1. Make sense of problems and persevere in solving them.