

# 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

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- What are different interpretations of a fraction?

## Big Ideas

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- **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

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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

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### 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**

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