## 3.NF | Number Sense and Operations in Fractions

## 3.NF.A Develop understanding of fractions as numbers.

3.NF.A.1: Understand a unit fraction as the quantity formed by one part when a whole is partitioned into equal parts.

## Understand fractions

1. Understand fractions: fraction bars 6JL
2. Understand fractions: area models RTW

## Show fractions

3. Show fractions: fraction bars ZPW
4. Show fractions: area models NLE

## Match fractions and models

5. Match fractions to models: halves, thirds, and fourths Y55
6. Match unit fractions to models CPK
7. Match fractions to models YHL

## Word problems

8. Unit fractions: modeling word problems UV8
9. Unit fractions: word problems HM7
10. Fractions of a whole: modeling word problems 9PU
11. Fractions of a whole: word problems BV7
3.NF.A.2: Understand that when a whole is partitioned equally, a fraction can be used to represent a portion of the whole.
3.NF.A.2.a: Describe the numerator as representing the number of pieces being considered.

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## Show fractions

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4. Show fractions: area models NLE

## Match fractions and models

5. Match fractions to models: halves, thirds, and fourths Y55
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## Word problems

8. Unit fractions: modeling word problems UV8
9. Unit fractions: word problems HM7
10. Fractions of a whole: modeling word problems 9PU
11. Fractions of a whole: word problems BV7
3.NF.A.2.b: Describe the denominator as the number of pieces that make the whole.

## Understand fractions

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## Match fractions

5. Match fractions to models: halves, thirds, and fourths Y55
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## Word problems

8. Unit fractions: modeling word problems UV8
9. Unit fractions: word problems HM7
10. Fractions of a whole: modeling word problems 9PU
11. Fractions of a whole: word problems BV7
3.NF.A.3: Represent fractions on a number line.
3.NF.A.3.a: Understand the whole is the interval
12. Fractions of number lines: unit fractions TBX from 0 to 1.
13. Fractions of number lines J8M
3.NF.A.3.b: Understand the whole is partitioned into equal parts.
14. Fractions of number lines: unit fractions TBX
15. Fractions of number lines J8M
3.NF.A.3.c: Understand a fraction represents the endpoint of the length a given number of partitions from 0 .

## Identify fractions

1. Identify unit fractions on number lines JVC
2. Identify fractions on number lines AWH

## Graph fractions

3. Graph unit fractions on number lines CBW
4. Graph fractions on number lines 7QM
3.NF.A.4: Demonstrate that two fractions are equivalent if they are the same size, or the same point on a number line.
5. Identify equivalent fractions on number lines HYM
6. Find equivalent fractions using number lines JL8
3.NF.A.5: Recognize and generate equivalent fractions using visual models, and justify why the fractions are equivalent.

## Model equivalent fractions

1. Find equivalent fractions using fraction strips LXP
2. Find equivalent fractions using area models: two models ZJ2
3. Find equivalent fractions using area models: one model 6DY
4. Graph equivalent fractions on number lines WPQ

## Equivalent fractions

5. Identify equivalent fractions 7DA
6. Find equivalent fractions $W M X$
3.NF.A.6: Compare two fractions with the same numerator or denominator using the symbols $>,=$ or $<$, and justify the solution.

## Compare using models

1. Compare fractions using models MJ2

## Compare using number lines

2. Graph smaller or larger fractions on a number line 2PH
3. Compare fractions using number lines 38T
4. Graph and compare fractions with like denominators on number lines 63U
5. Graph and compare fractions with like numerators on number lines ZPD
6. Graph and compare fractions on number lines 6H5

## Compare fractions

7. Compare fractions 78D
8. Compare fractions in recipes $9 B K$
3.NF.A.7: Explain why fraction comparisons are only valid when the two fractions refer to the same whole.
