

NF	NF	NF	MD	NBT
Make & name fractional parts	Explore equivalency	Fractions on a number line	Connect number lines to ruler measurement	Subtraction strategies
10 days	5-7 days	8-10 days	3-5 days	10-12 days

NF (8-10 days) Make and name fractional parts

Draft unit - Make & Name Fractional Parts- * found in 3rd grade resources*

Conceptual Flow	<ul style="list-style-type: none"> Construct and draw fractional parts. Use equal parts language to build the foundation that the parts are equal. M.3.25 Partition circles, rectangles, “snakes”, and other shapes into equal parts. M.3.25 	<ul style="list-style-type: none"> Name fractional parts based on the number of equal pieces within the whole. M.3.13 Understand that a half equals a half only if it is from the same whole. M.3.15a 	<ul style="list-style-type: none"> Understand that the numerator of a fraction provides the number of unit fraction pieces by building and drawing. (e.g., $\frac{3}{4}$ is 3 one-fourth pieces). M.3.13
Essential Goals	<ul style="list-style-type: none"> Ensure that students can create fractional parts (2, 4, 8, 3 & 6) without assistance. Name fractional parts based on the number of equal parts within a whole. Understand that the denominator represents the number of equal parts into which the whole has been partitioned. One part is called a unit fraction. Understand that the numerator provides the number of unit fraction pieces. 		
Ongoing Ideas	<ul style="list-style-type: none"> Estimating measurements of mass. Multiplication and division as equal groups. Multiplication as area. 		
Daily Math Warm-Ups (Number Talk Style)	<ul style="list-style-type: none"> Multiply one-digit whole numbers by multiples of 10 in the range of 10-90 using multiple strategies. M.3.12 Quick images of square numbers using the area model to build the foundation for square number facts. 		
Activity suggestions	<ul style="list-style-type: none"> Playdoh and spinners activities in fraction make and take linked above Make fraction kit p.13 of <i>Creating Fraction and Decimal AHAs</i> 	<ul style="list-style-type: none"> pp. 28-30 of <i>Creating Fraction and Decimal AHAs</i> Freckle Recess Games Inquiry lesson Fraction Picture Activity My Math: p.575-580 Math in Practice: p.190-200 	<ul style="list-style-type: none"> Freckle Studying Big Cats of Africa Inquiry lesson Finding fractions- unit fractions game in green fundamentals book pg. 60 My Math: p.569-574, 581-586, 607-612

NF	NF	NF	MD	NBT
Make & name fractional parts	Explore equivalency	Fractions on a number line	Connect number lines to ruler measurement	Subtraction strategies
10 days	5-7 days	8-10 days	3-5 days	10-12 days

NF (5-7 days) Explore equivalency

Conceptual Flow	<ul style="list-style-type: none"> Compare fractions with like numerators. M.3.15d Compare fractions with like denominators. M.3.15d Correctly use <, >, and = to show the relationships. 	<ul style="list-style-type: none"> Build and draw mixed numbers. Foundation for M.3.15c 	<ul style="list-style-type: none"> Find the ways in which unit fractions fit into mixed numbers. Model and draw. Foundation for M.3.15c 	<ul style="list-style-type: none"> Based on previous work students examine pairs of equivalent fractions and describe the relationship. e.g., $\frac{4}{4} = 1, \frac{6}{6} = 1, \frac{3}{3} = 1$ $\frac{5}{5} = 1, \frac{2}{2} = 1, \frac{8}{8} = 1$ $\frac{1}{2} = \frac{2}{4}, \frac{1}{3} = \frac{2}{6}, \frac{1}{4} = \frac{2}{8}$
Essential Goals	<ul style="list-style-type: none"> Understand that when comparing fractions with like numerators you are comparing the relative size of the unit fraction pieces. (e.g., $\frac{3}{8}$ and $\frac{3}{4}$... since $\frac{1}{4}$ is "bigger" than $\frac{1}{8}$, $\frac{3}{4}$ is bigger than $\frac{3}{8}$). Note: denominators limited to 2, 3, 4, 6, 8. Understand that when comparing fractions with like denominators you are comparing the quantity of same sized unit fraction pieces. (e.g., $\frac{3}{4}$ and $\frac{2}{4}$... 3 one-fourth pieces is greater than 2 one-fourth pieces.) Note: denominators limited to 2, 3, 4, 6, 8. Build an understanding of equivalency as dividing a fractional piece into smaller unit fraction pieces or finding a way to make the same size piece using a larger unit fraction piece. Understand that equivalency is a way to talk about the same sized region. 			
Ongoing Ideas	<ul style="list-style-type: none"> Equal parts of fractions. Terms numerator and denominator. Relative size of fractional pieces. 			
Daily Math Warm-Ups (Number Talk Style)	<ul style="list-style-type: none"> Quick images of double 5-frame representations 1 to 9 to build the foundation for "2s facts" Quick images of fraction region models. 			
Activity suggestions	<ul style="list-style-type: none"> pp. 36-39, <i>Creating Fraction and Decimal AHAs</i> Fraction Golf game on TPT My Math: p. 613-618 Great Tasks: Bigger Half p.143-146 Math in Practice: p.228-240 	<ul style="list-style-type: none"> See pp. 23-25, <i>Creating Fraction and Decimal AHAs</i> Math in Practice: p.214-226 	<ul style="list-style-type: none"> Use fraction kit to complete activity on p. 13, <i>Creating Fraction and Decimal AHAs</i> 	<ul style="list-style-type: none"> Use fraction kit or playdoh pieces to demonstrate equivalent fractions

NF	NF	NF	MD	NBT
Make & name fractional parts	Explore equivalency	Fractions on a number line	Connect number lines to ruler measurement	Subtraction strategies
10 days	5-7 days	8-10 days	3-5 days	10-12 days

NF (8-10 days)
Fractions on a number line

Conceptual Flow	<ul style="list-style-type: none"> Understand a whole on a number line is from 0 to 1. M.3.14a Partition the whole on a number line into equal pieces (distances). Limited to 2, 4, 8, 3, and 6. M.3.14a 	<ul style="list-style-type: none"> Label fractions on a number line. M.3.14b 	<ul style="list-style-type: none"> Extend the patterns for labeling fractions on a number line beyond one. M.3.14b 	<ul style="list-style-type: none"> Understand that equivalency is the same location on a number line. M.3.15c
Essential Goals	<ul style="list-style-type: none"> Understand that a number line is a distance model. Therefore, when we label locations on a number line it is “the cumulative” unit fraction lengths from 0. (e.g., when we partition the whole from 0 to 1 into 4 equal piece, each piece is one-fourth but the labeling of locations is $\frac{1}{4}, \frac{2}{4}, \frac{3}{4}, \frac{4}{4}$ or 1. Students can draw, partition, and label locations on a number line. Understand that we can label number lines using the number of unit fraction lengths from 0 (improper fractions beyond 1) or using mixed numbers. Understand that fractions represent numbers on the number line. 			
Ongoing Ideas	<ul style="list-style-type: none"> Use the hour-hand only clock and minute-hand only clock to review and solidify the location of the hour hand on the half hour and quarter hours. Refer to the clock throughout the day. Demonstrate equivalent fractions 			
Daily Math Warm-Ups (Number Talk Style)	<ul style="list-style-type: none"> Introduce clocks. One with only the hour hand. The other with only the minute hand. Quick images of double 5-frame representations 1 to 9 to build fluency with “2s facts”. Quick fraction images, mixing unit fractions within the whole (for example: half, fourth, fourth) 			
Activity suggestions	<ul style="list-style-type: none"> Create number lines and represent fractions on them (use receipt paper and fold). Fold paper horizontally down the middle and outline to show the number line. My Math: p. 595-600 	<ul style="list-style-type: none"> pp. 31-35, <i>Creating Fraction and Decimal AHAs</i> Math in Practice: p.208 - 213, Sticky note number line p.220 	<ul style="list-style-type: none"> Create number lines greater than 1 and represent fractions on them. pp. 31-35, <i>Creating Fraction and Decimal AHAs</i> 	<ul style="list-style-type: none"> Introducing equivalency on a number line. p. 32, <i>Creating Fraction and Decimal AHAs</i> My Math: p.601-60 Great Tasks: Fraction Reaction p117-122

Grade 3--Third Nine Weeks

NF	NF	NF	MD	NBT
Make & name fractional parts	Explore equivalency	Fractions on a number line	Connect number lines to ruler measurement	Subtraction strategies
10 days	5-7 days	8-10 days	3-5 days	10-12 days

MD (5-7 days)

Connect number lines to ruler measurement

Conceptual Flow	<ul style="list-style-type: none"> Examine and use an inch only ruler. Ensure that students understand that the object does not need to align with zero. M.3.19 Construct a ruler by dividing each inch on an inch only ruler into 2 equal parts (half inches) and then 4 equal parts (quarter inches). Foundation for M.3.19 	<ul style="list-style-type: none"> Name locations on the ruler using mixed number language. Foundation for M.3.19 	<ul style="list-style-type: none"> Measure objects without aligning to 0. (Broken ruler concept). M.3.19 	<ul style="list-style-type: none"> Generate measurement data by measuring objects to the $\frac{1}{2}$ or $\frac{1}{4}$ using a ruler with only half or quarter inch marks. M.3.19 	<ul style="list-style-type: none"> Represent data on a line plot. M.3.19
Essential Goals	<ul style="list-style-type: none"> Understand that a ruler is a number line model. Understand that an object that is 4 inches long will be 4 inches long no matter where it is placed on a ruler (start points other than zero). Focus attention on unit size instead of reading the number at the end of the object. 				
Ongoing Ideas	<ul style="list-style-type: none"> Fractions on a number line. Fractions as distances. Line plots. 				
Daily Math Warm-Ups (Number Talk Style)	<ul style="list-style-type: none"> Quick images of double 5-frame representations 1 to 9 immediately followed by quick images of four 5-frames of the same quantity to build the foundation for "4s facts". Quick images of the 10-frame images for 10s, 5s, and 9s. 				
Activity suggestions	<ul style="list-style-type: none"> What's My Length activity Students create rulers showing inch, half inch, and quarter inch parts. Math In Practice: p.275 	<ul style="list-style-type: none"> Provide students with opportunities to name locations as mixed numbers 	<ul style="list-style-type: none"> Measuring to the nearest half inch measurement task cards on TPT 	<ul style="list-style-type: none"> Linear Measurement Scavenger Hunt on TPT. Be sure to save the data from this activity. My Math: p. 723-728 Math in Practice: p. 286-290 	<ul style="list-style-type: none"> My Math: p. 715-720, 729-740

NF	NF	NF	MD	NBT
Make & name fractional parts	Explore equivalency	Fractions on a number line	Connect number lines to ruler measurement	Subtraction strategies
10 days	5-7 days	8-10 days	3-5 days	10-12 days

NBT (8-10 days) Subtraction strategies

Conceptual Flow	<ul style="list-style-type: none"> Review and solidify subtraction fact strategies (count back 1, 2,3, count up, use doubles and near doubles, think addition). Foundation for M.3.11 	<ul style="list-style-type: none"> Extend the strategies to use with 2- and 3-digit numbers. (Use doubles and near doubles, count 10, 20, 30, 100, 200, 300, count up, think addition). M.3.11 	<ul style="list-style-type: none"> Use efficient strategies (standard algorithm is delayed until 4th grade) to subtract 2- and 3-digit numbers. Remove using place value representations, round and adjust. M.3.11 	<ul style="list-style-type: none"> Connect subtraction and addition by thinking of subtraction as “how many more” or “how many fewer” (missing addend). M.3.11
Essential Goals	<ul style="list-style-type: none"> Build flexibility with using a variety of subtraction strategies to subtract 1-, 2-, and 3-digit numbers. Understand and use decomposing numbers to subtract. Understand subtraction as removal, comparison, or distance (difference). 			
Ongoing Ideas	<ul style="list-style-type: none"> Addition strategies – use missing addends (think addition) to subtract. Understand that fractions represent numbers on a number line (link to measurement). Draw, partition, and label locations on a number line. 			
Daily Math Warm-Ups (Number Talk Style)	<ul style="list-style-type: none"> Review and solidify decomposing a ten into two parts and a hundred into 2 decade numbers. Quick images of double 5-frame representations 1 to 9 immediately followed by quick images of four 5-frames of the same quantity to build fluency with “4s facts”. Quick images of the tens frame images for 10s, 5s, and 9s and square number representations. Number Talks: Adding up p.207-211, Adjusting One Number p. 223-225 			
Activity suggestions	<ul style="list-style-type: none"> Addition Top it, Target 50 and Name That Number from Everyday Math Series- look in student reference book for directions My Math: p. 133-136 (this is the only lesson in unit 3 that addresses our subtraction standards) Fundamentals – Purple p.12, p.36 	<ul style="list-style-type: none"> Extend Top It to 2- and 3-digit numbers Purple Foundations books activities: p12, p28, p32, p3 Math in Practice: p. 171-191 	<ul style="list-style-type: none"> Provide students with opportunities to use strategies to solve 2- and 3-digit subtraction problems 	<ul style="list-style-type: none"> Provide students opportunities to solve subtraction and addition problems Practice Word Problems