

Math Grade 4 Unit 3
Curriculum Unit Planning Template
Canterbury Public Schools

Subject	Math
Grade Level	4
Unit Title	Extending Operations to Fractions
Unit Goals	<p>Students learn that a fraction a/b is a product of a whole number a and a unit fraction $1/b$ or $a/b = a \times 1/b$ and then $n \times a/b = (nxa)/b$</p> <p>Section A Equal Groups of Fraction Recognize that $n \times a/b = (nxa) / b$ Represent and explain that a/b is a multiple of $1/b$, namely $a \times 1/b$ Represent and solve problems involving multiplication of a fraction by a whole number</p> <p>Section B Addition and Subtraction of Fractions Create and analyze line plots that display measurement data in fractions of a unit ($1/8, 1/4, 1/2$) Represent and solve problems that involve the addition and subtraction of fractions and mixed numbers, including measurements presented in line plots Use various strategies to add and subtract fractions and mixed numbers with like denominators</p> <p>Section C Addition of Tenths and Hundredths Reason about equivalence to add tenths and hundredths Reason about equivalence to solve problems involving addition and subtraction of fractions and mixed numbers.</p>
Pacing (# of weeks)	2 - 3 weeks
Standards	4.NF.B.4, 4.NF.B.4.a, 4.NF.B.4.b, 4.NF.B.4.c 4.MD.B.4, 4.NF.B.3,4.F.B.3.a, 4.NF.b.3.c,4.NF.B.3.d, 4.NF.B.4.c 4.NF.A.1, 4.NF.a.2, 4.NF.B.c, 4.NF..B.3.d, 4.NF,B.4, 4.NF.b.4.c, 4.NF.C.5
Content/Conceptual Knowledge (know)	The composition of mixed fractions Use strategies and knowledge of operations to solve problems Compose and decompose numbers/fractions follows a formula

Skills (be able to do)	<p>Add and subtract fractions with denominators and to add and subtract tenths and hundredths</p> <p>Compose and decompose fractions</p> <p>Use operations with fractions</p> <p>Multiply fractions by whole numbers, add and subtract fractions with the same denominator , add tenths and hundredths.</p> <p>Analyze line plots</p> <p>Find sums and differences answer questions about data</p> <p>Use fraction equivalence to find sums of tenths and hundredths.</p> <p>Organize rational length measurements on line plots</p> <p>Write fractions and write expressions to represent quantities</p> <p>Apply the understanding of fraction equivalence to add tenths and hundredths.</p>
Essential Questions	<p>What strategies can be used to compose and decompose fractions?</p> <p>What is the difference between.....? How do you know?</p>
Enduring Understandings	<p>A fraction a/b is a product of a whole number a and a unit fraction $1/b$ or $a/b = a \times 1/b$ and than $n \times a/b = (n \times a)/b$</p> <p>Fractions can be represented by more than one multiplication expression. (example: $4 \times \frac{3}{5} = \frac{4}{1} \times \frac{3}{5} = \frac{12}{5}$)</p>
Vocabulary	<p>Decompose, compose, tenths, hundredths ,</p>
Common Learning Experiences	<p>Lesson 2 Activity 1 Card Sort: expressions and diagrams</p> <p>Lesson 10, Activity 1, What's Left</p> <p>Lesson 15, Activity 2, Stacks of Blocks</p> <p>Solve design problems</p>
Assessments	<p>Unit tests solve problems that involve fraction multiplication, using diagrams and equations to show reasoning.</p> <p>Solve a design problem</p> <p>Daily cool downs, check points</p>
Resources	<p>Tape diagrams, line plots , blocks , Make Two Jumps</p> <p>Card Sorts, Fraction ACtion: Tenths, hundredths, CArd Sorts, Less tThan , Equal To, or Greater than</p>
Strategies	<p>Use tape diagrams, use number lines to represent the decomposition of fractions into sums</p>