Grade: 3 Unit: 4	**Fractions**	8-9 Weeks

Progression	
2nd Grade	Students understand halves, thirds, and fourths in shapes.
3rd Grade	Students will learn that fractions are part of a whole and that they are numbers on a number line. Students will decompose fractions to unit fractions. Students will also understand and find equivalent fractions. Finally, students will compare fractions.
4th Grade	Students will add/sub. fractions, compare fractions, apply an understanding of multiplication to fractions, use decimal notation for fractions, and compare decimals.

STUDENT LEARNING GOALS

Mathematics Standards *(Appendices A & B)*

CCSS.Math.Content.3.NF.A.1
Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b.

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

CCSS.Math.Content.3.NF.A.2.a
Represent a fraction 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 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line.

CCSS.Math.Content.3.NF.A.2.b
Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.

CCSS.Math.Content.3.NF.A.3
Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

CCSS.Math.Content.3.NF.A.3.a
Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.

CCSS.Math.Content.3.NF.A.3.b
Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3. Explain why the fractions are equivalent, e.g., by using a visual fraction model.

CCSS.Math.Content.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 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.

CCSS.Math.Content.3.NF.A.3.d
Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Interdisciplinary Standards	
Technology Integration *(Appendix C)*	**21st Century Skills** *(Appendix D)*
IS1. Information Strategies IS2. Information Use	TCS1. Use of Information TCS5. Problem Solving

Key Vocabulary	
fraction **numerator** **denominator** **equivalent** **region** **compare** **share** **divide**	

Enduring Understandings	**Essential Questions**
• Fractional parts are equal parts of a whole or whole set. • The denominator of a fraction (number on the bottom) represents the number of parts divided. The numerator of a fraction (top number) tells how many parts you have. • Unit fractions are the building blocks of fractions. • Fractions are numbers on a number line	• What is a fraction? • How can fractions be decomposed? • How are fractions represented on a number line? • What does equivalent fraction mean? • How are fractions used in our daily lives?

Assessment Plan	
Summative Assessment(s)/Performance Based Assessments including 21st Century Learning RCC Interim Assessment, Student p.176-177 RCC Performance Task, Student p.178	**Formative and Diagnostic Assessment(s)** STAR Math Assessment (Fall) STAR Progress monitoring throughout the year RCC Embedded Tasks and Assessments

Learning Plan Components	
Text	**Ready Common Core Mathematics Instruction 2**, 2014, Curriculum Associates, ISBN: 978-0-7609-8637-0
Print	**Ready Common Core Mathematics Teacher Resource Book 2**, 2014, Curriculum Associates, ISBN: 978-0-7609-8644-8
Electronic	www.teacher-toolbox.com www.stratfordmath.wikispaces.com www.xtramath.org https://www.engageny.org/search-site/grade%203?solrsort=score%20desc

Weeks 1 & 2	Students will: • Understand that a fraction is a whole divided into some number of equal parts. • Understand and recognize the parts of a fraction. • Understand that unit fractions are the building blocks of fractions in the same way that 1 is the building block of whole numbers.		
Lessons	**Tasks / Activities**	**Worksheets**	**Technology**
Ready Common core Lesson 14: Title: "What a Fraction is" Tchr. Pgs. 146-153 Student pgs. 134-137 Differentiation tchr. Pg. 153 Toolbox interactive video lesson 14	*Introduce concept of fractions as a set and fractions as a whole (see suggested activities in RCC) *Introduce vocabulary p. 132 & 133RCC student book *Fraction Kit (see direction sheet) Fraction strips 1/2, 1/4, etc. (Day 1) *Fraction Kit/strips 2 1/3, 1/6, etc. (Day 2) *(Allow child to make a fraction kit but use plastic ones to complete activities because they will line up perfectly)* *"Exploring Fractions" using strips (Georgia) *Building Rectangles" *Pattern Block fractions *Pizzas Made to Order (Georgia task) www.teacher-toolbox.com (center activities and "Practice and Problem Solving" (attached)	Commoncoresheets.com *Practice & Problems Solving Toolkit pgs. 160-166 "Smarties Fractions" *Worksheets from "Math Worksheet Land" Scott Foresman R 9-7, P 9-7, PS 9-2, PS 9-3 RCC Student pgs. 134-137	http://www.mathplayground.com/Scale_Fractions.html **fractions lessons 1-9 Engage NY** worksheets of fractions circles/strips "Mailbox" activities **Toolbox** **Optional Literature Books** ***Hershey's Chocolate Fraction book*** by Jerry Pallotta ***If You Were a Fraction*** Trisha Speed Shaskan ***Full House: An Invitation to Fractions*** Dayle Ann Dodds and Abby Carter ***Fraction Fun*** David Adler

Weeks 3 & 4 Fractions on a number line	Students will: • Understand that, in addition to whole numbers, number lines can show equal parts of a whole or fractions. • Understand that fractions are numbers on a number line. • Understand how to use number lines to count and identify fractional parts. • Represent fractions on a number line that are less than, equal to, or greater than one.		
Lessons	**Tasks / Activities**	**Worksheets**	**Technology**
***Ready Common core* Lesson 15: Title: "Understand Fractions on a Number Line"** Tchr. Pgs. 154-160 Student pgs. 138-143 Differentiation tchr. Pg. 161 Toolkit interactive video Lesson 15	*Connect number line to fraction tiles (see number line worksheets made to fit the fraction tiles) *"Swimming Problem" *"Move it Move it" Georgia number line task (Georgia)	*Practice & Problem Solving Toolkit pgs. 167-174 *Worksheets from "Math Worksheet Land" Scott Foresman: R 9-6, P 9-6	Math is Fun fractions on number line Fractions on number line lessons 14-19 Engage NY Toolbox

Week 5	Students will: • Understand that two fractions are equivalent if they are the same size, cover the same area, or are on the same point on a number line. • Recognize and generate simple equivalent fractions using fractions models and number lines. • Explain why two fractions are equivalent by using a fraction model or number line.

Lessons	Tasks / Activities	Worksheets	Technology
***Ready Common core* Lesson 16: Title: "Understand Equivalent Fractions"** Tchr. Pgs. 162-168 Students pgs. 144-149 Differentiation: pg. 169 Toolkit interactive video Lesson 16	*Fraction Strip games "Race to a Whole" "Race to 0" (see direction sheet) Rock, Paper, Scissors Uncover Wipeout Equivalent Fraction activities *"Pizza for Dinner"	*Practice & Problem Solving Toolkit pgs. 175-182 Scott Foresman: R 9-3, P 9-3, R 9-4, P 9-4	Equivalent fractions Lessons 20-27 Engage NY Toolbox

Week 6	Students will: • Use fraction models and number lines to identify and create equivalent fractions, including those that are greater to or equal to one whole. • Express whole numbers as fractions • Identify fractions that are equivalent to whole numbers.

Lessons	Tasks / Activities	Worksheets	Technology
***Ready Common core* Lesson 17: Title: "Find Equivalent Fractions"** Tchr. Pgs. 170-180 Student pgs. 150-161 Differentiation: pg.181 Toolkit Interactive video Lesson 17	*Continue with previous lesson's activities *"Cuisenaire Equivalent Fractions" *"Build a Hexagon (Georgia) *Equivalent Fraction Match game (Toolbox)	*Practice & Problem Solving Toolkit pgs. 183-194	Comparing fractions lessons 10-13 Engage NY Toolbox

Week 7	Students will: • Understand that in order to compare two fractions, students must reason about the size of unit fractions shown by the denominators and number of parts shown in the numerator in each fraction. • Analyze the numerators and denominators in fractions to be compared to determine if the fractions have the same numerators or denominators. • Explain why one fraction is smaller or larger when comparing two fractions using models or number lines.

Lessons	**Tasks / Activities**	**Worksheets**	**Technology**
Ready Common core **Lesson 18: Title: "Understand Comparing Fractions"** Tchr. Pgs. 182-188 Student pgs. 162-167 Differentiation: p. 189 Toolkit Interactive video Lesson 18	Closest to 0, 1/2, 1 *"Roll, Write and Color!" *"Compare and Order" (using fraction strips) *"Make One" (using fraction strips)	*Practice & Problem Solving Toolkit pgs. 195-202	"Mailbox" activities Online comparing activity "Adapted Mind" Toolbox

Week 8	Students will: • Use symbols to record the results of comparing fractions. • Read comparison statements fluently and accurately. • Use models and number lines to explain and justify fraction comparisons.		
Ready Common Core **Lesson 19** **Title: "Use Symbols to Compare Fractions** Tchr. Pgs. 190-196 Students pgs. 168-175 Differentiation pg. 197 Toolbox Interactive video Lesson 19	**Tasks / Activities** *Review symbols < > = *RCC lessons	**Worksheets** *Practice & Problem Solving pgs. 203-210 **common core sheets**	**Technology** Toolbox Comparing Fractions lesson 28 Engage NY Comparing fractions using symbols lesson 29 Engage NY Lesson 30 Engage NY
RCC Lesson Review	Unit 4 "Practice" (Toolkit) Performance Task (Toolkit)		
Week 9	Students will: • Demonstrate mastery of unit objectives		
Summative Assessment		**Performance Task**	
RCC Unit 1 Interim Assessment -Student pgs. 176-177 -Scoring Guide (p. 199)		RCC Unit 4 Performance Task -Student p. 178 -Rubric (p. 201)	