







Trimester	Unit Title	Recommended Instructional Days
2	<b>Add and Subtract Fractions and Mixed Numbers with Unlike Denominators</b>	<b>8-10 days</b>
<b>Domain: Number and Operations - Fractions</b>		
<p><b>Strand:</b></p> <p> <b>5.NF.A.1</b> Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. <i>For example, <math>\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{21}{12}</math>. (In general, <math>\frac{a}{b} + \frac{c}{d} = \frac{(ad+bc)}{bd}</math>.)</i></p> <p> <b>5.NF.A.2</b> Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. <i>For example, recognize an incorrect result <math>\frac{2}{5} + \frac{1}{2} = \frac{3}{7}</math>, by observing that <math>\frac{3}{7} &lt; \frac{1}{2}</math>.</i></p> <p>Key:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <b>Major Cluster</b> </div> <div style="text-align: center;">  <b>Supporting Cluster</b> </div> <div style="text-align: center;">  <b>Additional Cluster</b> </div> <div style="text-align: center;">  <b>Climate Change Opportunity</b> </div> </div>		
<b>Mathematical Practices:</b>		
<p><b>Progress Indicator:</b> ◊ Tests ◊ Homework / Classwork ◊ Projects ◊ Formative assessments ◊ Summative assessments ◊ Performance assessments</p> <ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reason of others.</li> <li>4. Model with mathematics.</li> </ol>		

5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

**Recommended Activities, Investigations, Interdisciplinary Connections, and/or Student Experiences to Explore NJSL-CLKS within Unit****Essential Questions:**

Lesson 10.1: How can we add and subtract mixed numbers with unlike denominators?

Lesson 10.2: How can we use renaming to find the difference of two mixed numbers?

Lesson 10.3: How can we use addition and subtraction to describe a pattern or create a sequence with fractions?

Lesson 10.4: How can we use properties to help add fractions with unlike denominators?

Lesson 10.5: How can we use the strategy “work backward” to help solve a problem with fractions that involve addition and subtraction?

**Essential Understandings:**

Lesson 10.1: Adding and subtracting mixed numbers with unlike denominators involves finding a common denominator and converting the mixed numbers into equivalent fractions.

Lesson 10.2: Renaming to find the difference of two mixed numbers involves converting mixed numbers into improper fractions or borrowing to make the subtraction process straightforward and accurate.

Lesson 10.3: Using addition and subtraction to describe a pattern or create a sequence with fractions helps us recognize and generate numerical patterns.

Lesson 10.4: Using properties to add fractions with unlike denominators involves applying mathematical principles such as the associative, commutative, and distributive properties to simplify the addition process.

Lesson 10.5: Using the strategy “work backward” to solve a problem with fractions that involve addition and subtraction requires applying inverse operations and logical reasoning to find the solution.

**No New Vocabulary****Suggested Activity Description:**

Waggle, On the Spot Videos, Tier 2 and 3 Intervention Resources, Vocabulary Activities, Grab and Go Differentiation Kit, Explore and Guided/Independent Practice related to the NJSL, Essential Question Discussion and Check-In, Share and Show, Basic Skills Review, Manipulative Activity, Reteach Activity, Reading Strategies Activity, Making Connections, Multilingual Support, Performance Task, Enrich Activity, Exit Ticket

**Interdisciplinary Connections:****Language Arts:**

1. Problem #11 on TB page 373.
2. Problem #9 on TB page 379.
3. Problem #9 on TB page 385.
4. Problem #9 on TB page 391.

<p><b>Science:</b> 1. See Cross-Curricular box on Teacher Edition page 397.</p> <p><b>Social Studies:</b> 1. See Cross-Curricular box on Teacher Edition page 397.</p> <p><b>Spot Light On:</b> <i>Seek multiple perspectives and different answers to questions.</i></p>	
<p><b>Social and Emotional Learning: <i>Competencies</i></b></p>	<p><b>Social and Emotional Learning: <i>Sub-Competencies</i></b></p>
<p>SEL Competencies:</p> <ul style="list-style-type: none"> <li>• Self- awareness</li> <li>• Social Awareness</li> <li>• Self- Management</li> <li>• Relationship Skills</li> <li>• Responsible Decision-Making</li> </ul>	<ul style="list-style-type: none"> <li>• Recognizing the importance of self-confidence in handling daily tasks and challenges.</li> <li>• Demonstrate an awareness of the expectations for social interactions in a variety of ways.</li> <li>• Demonstrate an understanding of the need for mutual respect when viewpoints differ.</li> <li>• Identify and apply ways to persevere through alternative methods to achieve goals.</li> <li>• Utilize positive communication and social skills to interact effectively with others.</li> <li>• Develop, implement, and model effective problem solving and critical thinking skills.</li> </ul>
<p><b>Assessments (Formative)</b> <i>To show evidence of meeting the standard/s, students will successfully engage within:</i></p>	<p><b>Assessments (Summative)</b> <i>To show evidence of meeting the standard/s, students will successfully complete:</i></p>
<p><b><u>Formative Assessments:</u></b> • Teacher Observations • Exit Tickets • Quizzes • Self Assessments • Math Journals • Homework/Classwork • Teacher created assessments</p>	<p><b><u>Benchmarks &amp; Summative Assessments:</u></b> Chapter/Unit Assessments • Standardized Tests • Project-based Assessments</p>

Differentiated Student Access to Content: Teaching and Learning <i>Resources/Materials</i>			
Core Resources	Alternate Core Resources <i>IEP/504/At-Risk/ESL</i>	ELL Core Resources	Gifted & Talented Core Resources
Go Math Workbook, Interactive Student Edition, ST MATH 60 minutes a week, Waggle, Math on the Spot Videos, iReady, Khan Academy, Illustrative Mathematics, Learn360, TeacherTube, BrainPOP, Freckle, LearnZillion, MobyMax, Achieve the Core, Desmos, RTI	Reteaching worksheets, Skill building workbook, Math manipulatives, iTools, Leveled practice worksheets	Multilingual glossary, eGlossary, Multilingual Activities on ED, Vocabulary Cards, Success for English Learners worksheets, Leveled Strategies for English Learners, Linguistic Support	ST MATH special projects, Enrichment worksheets, Art of Problem Solving, Leveled assessments
Supplemental Resources			
<p><b>Technology:</b></p> <ul style="list-style-type: none"> <li>• Chromebooks • Online math manipulatives</li> </ul> <p><b>Other:</b></p> <ul style="list-style-type: none"> <li>• Google Classroom, Google Meets, Schoology, Interactive Workbooks • Illustrative Mathematics • insidemathematics.org • National Library of Virtual Manipulatives</li> </ul>			
Differentiated Student Access to Content: Recommended <i>Strategies &amp; Techniques</i>			
Core Resources	Alternate Core Resources <i>IEP/504/At-Risk/ESL</i>	ELL Core Resources	Gifted & Talented Core
Deliver instruction utilizing varied learning styles including audio, visual, and tactile/kinesthetic, provide individual instruction as needed, modify assessments and/or rubrics, repeat	Utilize a multi-sensory (VAKT) approach during instruction, provide alternate presentations of skills by varying the method (repetition, simple explanations, additional examples, modeling, etc.), modify test content and/or format, allow students to retake	Extend time requirements, preferred seating, positive reinforcement, check often for understanding/review, oral/visual directions/prompts when necessary, supplemental materials including use of an online bilingual dictionary, and modified assessment and/or rubric.	Create an enhanced set of introductory activities, integrate active teaching/learning opportunities, incorporate authentic components, propose interest-based extension activities, and connect student to related

	test for additional credit, provide additional times and preferential seating as needed, review, restate and repeat directions, provide study guides, and/or break assignments into segments of shorter tasks.		
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<b>NJSLS CAREER                  READINESS, LIFE                  LITERACIES &amp; KEY                  SKILLS</b>	<b>Disciplinary Concept(s): Work Productively in Teams</b>		
	<b>Core Ideas:</b>	Curiosity and willingness to try new ideas (intellectual risk taking) contributes to the development of creativity and innovation.	
	<b>Performance Expectation/s:</b>	<b>9.4.5.CI.3:</b> Participate in a brainstorming session with individuals with diverse perspectives to expand one’s thinking about a topic of curiosity.	
	<b>Career Readiness, Life Literacies, &amp; Key Skills Practices</b>		
	Act as a responsible and contributing community member and employee. Attend to financial well-being. Consider the environmental, social and economic impacts of decisions. Demonstrate creativity and innovation. Utilize critical thinking to make sense of problems and persevere in solving them. Model integrity, ethical leadership and effective management. Plan education and career paths aligned to personal goals. Use technology to enhance productivity, increase collaboration and communicate effectively. Work productively in teams while using cultural/global competence.		

New Jersey Legislative Statutes and Administrative Code (place an “X” before each law/statute if/when present within the curriculum map)						
Amistad Law: <i>N.J.S.A. 18A 52:16A-88</i>	Holocaust Law: <i>N.J.S.A. 18A:35-28</i>	LGBT and Disabilities Law: <i>N.J.S.A. 18A:35-4.35</i>	<b>X</b>	Diversity & Inclusion: <i>N.J.S.A. 18A:35-4.36a</i>	Standards in Action: <i>Climate Change</i>	