Marking Period	Unit Title	Recommended Instructional Days
2	**Fraction Equivalence and Comparison**	**8 - 10 Days**

Domain

Strand:

4.NF.A.1 Extend understanding of fraction equivalence and ordering. Explain why a fraction a/b is equivalent to a fraction (n × a)/(n × b) by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.

4.NF.A.2 Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >,=, or <, and justify the conclusions, e.g., by using a visual fraction model.

Key:

Major Cluster **Supporting Cluster** **Additional Cluster**

Progress Indicator: ◊ Tests ◊ Homework / Classwork ◊ Projects ◊ Formative assessments ◊Summative assessments

Mathematical Practices:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reason of others.
4. Model with mathematics.
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 NJSLS-CLKS within Unit

Essential Questions:
Lesson 6.1 How can you use models to show equivalent fractions?
Lesson 6.2 How can you use multiplication to find equivalent fractions?
Lesson 6.3 How can you write a fraction as an equivalent fraction in simplest form?
Lesson 6.4 How can you write a pair of fractions as fractions with a common denominator?
Lesson 6.5 How can you use the strategy, *make a table*, to solve problems using equivalent fractions?
Lesson 6.6 How can you use benchmarks to compare fractions?
Lesson 6.7 How can you compare fractions?
Lesson 6.8 How can you order fractions?

Essential Understandings:
Lesson 6.1 Use models to show equivalent fractions.
Lesson 6.2 Use multiplication to generate equivalent fractions.
Lesson 6.3 Write and identify equivalent fractions in simplest form.
Lesson 6.4 Use equivalent fractions to represent a pair of fractions as fractions with a common denominator.
Lesson 6.5 Use the strategy *make a table* to solve problems using equivalent fractions
Lesson 6.6 Compare fractions using benchmarks.
Lesson 6.7 Compare fractions by first writing them as fractions with a common numerator or a common denominator.
Lesson 6.8 Compare and order fractions.

Vocabulary:
- Benchmark
- Common Denominator
- Denominator
- Equivalent fractions
- Fraction
- Multiple
- Numerator
- Simplest Form

Suggested Activity Description(s):
Show what you know, Problem of the Day, Fluency Builders, Personal Math Trainer, Math on the Spot Videos, Real World Videos, Vocabulary Preview Activity, Reteach and Enrichment Activities, Interactive Student Edition Textbook, RtI Activities, Grab and Go Differentiated Centers, Journal Writing, Advanced Learners Activities, Assessments, Standards Focus Packets for the related NJSLS, Success for English Learners Activities, Performance Task

Interdisciplinary Connections:

◊Suggested Sample Tasks:
Activity Description: On the Move
Interdisciplinary Connections: Math and Science
Content: Supporting Yearly Data Learning Activity, Hands on Activity: Flying High
Performance Task (Unit 4 Lesson 2; Pages 268-270)

Science
Objective: Design and test a device that disperses seeds using wind.
Skills Assessed:
- Analyze results
- Draw conclusions
- Cause and Effect
- Planning and Carrying Out Investigations
- Citing Evidence

Math
Objective: Collect and organize data accurately
Skills Assessed:
- Data in a table
- Accurate Measurements
- Measurement

Interdisciplinary Connections:

◊Suggested Sample Tasks:

STEM Activity: In Chapter 6, students extend their understanding of fraction equivalence and comparison, such as comparing and ordering fractions with unlike denominators. These same topics are used often in the development of various science concepts and process skills. Help students make the connection between math and science through the S.T.E.M. activities and activity worksheets found at Think Central.

In Chapter 6, students connect math and science with the S.T.E.M. Activity What Goes Up Must Come Down and the accompanying worksheets (pages 113 and 114). Through this S.T.E.M. Activity, students will connect to the GO Math! Chapter 6 concepts and skills with various concepts about the water cycle, including ordering the size of raindrops and dust particles expressed as fractions from least to greatest. It is recommended that this S.T.E.M. Activity be used after Lesson 6.8.

Science:
1. Kate needs to identify 12 constellations for a science project. So far, she has identified the constellations Orion, Mensa, and Taurus. What fraction represents the number of constellations Kate has identified so far? Express the fraction in simplest form.

Social Studies:
2. Will earns $25.00 each week doing errands and chores for his elderly neighbor. He plans to save $\frac{1}{5}$ of his earnings to donate to charity. Write an equivalent fraction that represents the part of Will's earnings that he plans to save. How much money does Will plan to save each week?

Language Arts:
1. Vocabulary Preview Activity, Go Math pg. 326
2. Vocabulary Game, Go Math pg.326 A
3. The Write Way, Go Math pg. 326 B

Spot Light On: *Use multiple ways of assessing student understanding.*

Social and Emotional Learning: ***Competencies***	**Social and Emotional Learning:** ***Sub-Competencies***
SEL Competencies: • Self- awareness • Social Awareness • Self- Management • Relationship Skills • Responsible Decision-Making	• Recognizing the importance of self-confidence in handling daily tasks and challenges. • Demonstrate an awareness of the expectations for social interactions in a variety of ways. • Demonstrate an understanding of the need for mutual respect when viewpoints differ. • Identify and apply ways to persevere through alternative methods to achieve goals. • Utilize positive communication and social skills to interact effectively with others. •Develop, implement, and model effective problem solving and critical thinking skills.

Assessments (Formative) ***To show evidence of meeting the standard/s, students will successfully engage within:***	**Assessments (Summative)** ***To show evidence of meeting the standard/s, students will successfully complete:***
Formative Assessments: • Teacher Observations • Exit Tickets • Quizzes • Self Assessments • Math Journals • Homework/Classwork • Teacher created assessments	**Benchmarks & Summative Assessments:** Chapter/Unit Assessments • Standardized Tests • District Assessments • Project-based Assessments

Differentiated Student Access to Content:
Teaching and Learning *Resources/Materials*

Core Resources	**Alternate Core Resources** ***IEP/504/At-Risk/ESL***	**ELL Core Resources**	**Gifted & Talented Core Resources**
Go Math Workbook, IXL, Personal Math Trainer, Math on the Spot Videos, My HRW, Khan Academy, Illustrative Mathematics, Learn360, TeacherTube, BrainPOP, Freckle, LearnZillion, MobyMax, 60 minutes of weekly ST Math, Edulastic, Achieve the Core, Desmos	Reteaching worksheets, Skill building workbook, Math manipulatives, Leveled practice worksheets	Dictionary for native language, Video tutorial in native language, Success for English Learners worksheets, Go Math Leveled Strategies for English Learners, Go Math Linguistic Support	ST Math Challenge Objectives, G&T tasks, Enrichment worksheets, Art of Problem Solving, Leveled assessments, Go Math Teaching for Depth

Supplemental Resources

Technology:
• Chromebooks • Online math manipulatives
Other:
• Google Classroom, Google Meets, Schoology, Interactive Workbooks • Illustrative Mathematics • insidemathematics.org • National Library of Virtual Manipulatives

Differentiated Student Access to Content: **Recommended *Strategies & Techniques***			
Core Resources	**Alternate Core Resources** *IEP/504/At-Risk/ESL*	**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.	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 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.	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 students to related content

NJSLS CAREER READINESS, LIFE LITERACIES & KEY SKILLS	**Disciplinary Concept(s):** Impacts of Decisions	
	Core Ideas:	Curiosity and willingness to try new ideas (intellectual risk taking) contributes to the development of creativity and innovation.
	Performance Expectation/s:	**9.4.12.CI.1**: Demonstrate the ability to reflect, analyze, and use creative skills and ideas.
	Career Readiness, Life Literacies, & Key Skills Practices	
	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: *N.J.S.A. 18A 52:16A-88*		Holocaust Law: *N.J.S.A. 18A:35-28*		LGBT and Disabilities Law: *N.J.S.A. 18A:35-4.35*	**x**	Diversity & Inclusion: *N.J.S.A. 18A:35-4.36a*		Standards in Action: *Climate Change*