Trimester	Unit Title	Recommended Instructional Days
1	**Multiplication Facts and Strategies**	**17 - 21 days**

Domain

Strand:

3.OA.A.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

3.OA.B.5 Apply properties of operations as strategies to multiply and divide.2 Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)

3.OA.C.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

3.OA.D.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. (This standard is limited to problems posed with whole numbers and having whole number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).)

3.OA.D.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.

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 4.1 How can you multiply with 2 and 4?
Lesson 4.2 How can you multiply with 5 and 10?
Lesson 4.3 What are some ways to multiply with 3 and 6?
Lesson 4.4 How can you use the Distributive Property to find products?
Lesson 4.5 What strategies can you use to multiply with 7?
Lesson 4.6 How can you use the Associative Property of Multiplication to find products?
Lesson 4.7 How can you use properties to explain patterns on the multiplication table?
Lesson 4.8 What strategies can you use to multiply with 8?
Lesson 4.9 What strategies can you use to multiply with 9?
Lesson 4.10 How can you use the strategy, *make a table*, to solve multiplication problems?

Essential Understandings:

Lesson 4.1 Draw a picture, count by 2s, or use doubles to multiply with the factors 2 and 4.

Lesson 4.2 Use skip counting, a number line, or a bar model to multiply with the factors 5 and 10.
Lesson 4.3 Draw a picture, use 5s facts and addition, doubles, or a multiplication table to multiply with the factors 3 and 6.
Lesson 4.4 Use the Distributive Property to find products by breaking apart arrays.
Lesson 4.5 Use the Commutative or Distributive Property or known facts to multiply with the factor 7.
Lesson 4.6 Use the Associative Property of Multiplication to multiply with three factors.
Lesson 4.7 Identify and explain patterns on the multiplication table.
Lesson 4.8 Use doubles, a number line, or the Associative Property of Multiplication to multiply with the factor 8.
Lesson 4.9 Use the Distributive Property with addition or subtraction or patterns to multiply with the factor 9.
Lesson 4.10 Solve multiplication problems by using the strategy, *make a table*.

Vocabulary:
- Associative Property of Multiplication
- Distributive Property
- Multiple

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

◊Suggested Sample Tasks:
Activity Description: Motion
Interdisciplinary Connections: Math and Science
Content: Hands On Activity: Slow Walk, Fast Walk
(Unit 3 Lesson 1; Pages 150-152)

Science
Objective: Understand the relationship between distance and speed.
Skills Assessed:
- Distance
- Speed
- Planning and Carrying Out Investigations
- Citing Evidence

Math

Objective: Collect, organize, and average data accurately.
Skills Assessed:
- Data in a table
- Accurate Measurements
- Time With a Stopwatch
- Calculate Averages

Interdisciplinary Connections:

STEM Activity: In Chapter 4, students develop their understanding of multiplication facts and strategies, such as multiplying by 5. These same topics are used often in the development of various science concepts and process skills. Help students make the connection between math, science, and engineering through the S.T.E.M. activities and activity worksheets found at Think Central.

In Chapter 4, students connect math, science, and engineering with the S.T.E.M. Activity Big Changes: Fire, Water, Mud and the accompanying worksheets ((pgs. 103-104) In correlation with ScienceFusion pgs. 288-289). Through this S.T.E.M. Activity, students will connect to the GO Math! Chapter 4 concepts and skills with various multiplication strategies, including skip counting by fives. It is recommended that this S.T.E.M. Activity will be used after Lesson 4.2.

Science:
1. Insects are arthropods. An arthropod is an invertebrate (an animal with no backbone) that has a segmented body. The insect body has 3 parts: the head, the thorax, which is the middle of the body, and the abdomen, which is the back. Insects have 6 legs. The mass of an object is the amount of matter the object has. An ant can carry 5, 10, and even 30 times its mass. Have students write and solve word problems. For example: If an ant has a mass of 3 milligrams, how much can it carry?

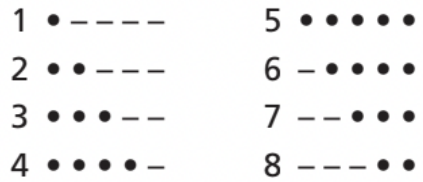
2. Windmills use wind to make electricity. A wind farm is a place with enough windmills to make electricity for a lot of people. One of the biggest windmills in the world is in Hawaii. It is as tall as a 20-story building, and its blades are as long as a football field. The windmills at a wind farm each have 3 blades. How many blades are there on 5 windmills?

3. Connect to Science, Go Math pg. 238

4. Stars are huge balls of glowing gas in the sky. The sun is a star, and it is the closest star to us. The sun is not the largest star in the universe. Some stars appear brighter because they are larger than other stars or closer to Earth. The stars you see in the night sky can form patterns and pictures. The Big Dipper is a pattern of 7 stars. If you were using gold stars to make 3 designs of the Big Dipper, how many gold stars would you need?

Social Studies:
1. The United States and Canada use dollars that are worth 100 cents. Mexico uses new (nuevo) pesos. One peso is equal to 100 centavos. There are coins worth 5, 10, 20, and 50 centavos. Both Canada and the United States have nickels worth 5 cents. If you had 4 nickels, how many cents would you have? If you had 6 five-centavos coins, how many centavos would you have?

2. The telegraph was patented in 1837 by Samuel Morse. It used electricity to send messages quickly. The telegraph used Morse code for letters and numbers. The numbers 1–8 looked like this in Morse code:



Have students solve Morse code math problems. For example: • • • • – groups with • • – – – counters in each group. How many counters are there in all?

3. The Calusa were a Native American tribe. The Calusa used shells for tools, utensils, and jewelry. They traveled in large canoes. Their biggest canoes could carry 50 people. What if a Calusa canoe could hold 9 rows of people with 2 people in each row? How many people could fit in the canoe?

Language Arts:
1. Collections Times Four - (From the Differentiated Centers Grab and Go Kit)
2. Here's What I Do - (From the Differentiated Centers Grab and Go Kit)
3. Connect to Reading, Go Math pg. 218
4. Party Plans by the Numbers! - (From the Differentiated Centers Grab and Go Kit)
5. The Workshop - (From the Differentiated Centers Grab and Go Kit)

Spot Light On: *Ask challenging questions equitably of all students.*

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):** Financial Well Being	
	Core Ideas:	The ability to solve problems effectively begins with gathering data, seeking resources, and applying critical thinking skills.
	Performance Expectation/s:	**9.4.5.CT.1**: Identify and gather relevant data that will aid in the problem-solving process.
	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*