Trimester	Unit Title	Recommended Instructional Days
1	**Understand Multiplication**	**14 - 18 days**

Domain

Strand:

3.OA.A.1 Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. For example, describe and/or represent a context in which a total number of objects can be expressed as 5 × 7.

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.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).)

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 3.1 How can you use equal groups to find how many in all?
Lesson 3.2 How is multiplication like addition? How is it different?
Lesson 3.3 How can you use a number line to skip count and find how many in all?
Lesson 3.4 How can you use the strategy, *draw a diagram*, to solve one- and two-step problems?
Lesson 3.5 How can you use arrays to model multiplication and find factors?
Lesson 3.6 How can you use the Commutative Property of Multiplication to find products?
Lesson 3.7 What happens when you multiply a number by 0 or 1?

Essential Understandings:

Lesson 3.1 Model and skip count objects in equal groups to find how many there are.
Lesson 3.2 Write an addition sentence and a multiplication sentence for a model.
Lesson 3.3 Model and skip count on a number line to find how many there are.
Lesson 3.4 Solve one- and two-step problems by using the strategy, *draw a diagram*.
Lesson 3.5 Use arrays to model products and factors.
Lesson 3.6 Model the Commutative Property of Multiplication and use it to find products.

Lesson 3.7 Model multiplication with the factors 1 and 0.

Vocabulary:

- Array
- Equal groups
- Factor
- Multiply
- Product
- Commutative Property of Multiplication
- Identity Property of Multiplication
- Zero Property of Multiplication

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:

STEM Activity: In Chapter 3, students develop their understanding of solving multiplication problems such as finding missing factors. 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 3, students connect math and science with the S.T.E.M. Activity Reflection and Refraction and the accompanying worksheets ((pgs. 101-102) In correlation with ScienceFusion pgs. 184-185). Through this S.T.E.M. Activity, students will connect to the GO Math! Chapter 3 concepts and skills with various applications of multiplication, including finding the magnification of a pair of binoculars. It is recommended that this S.T.E.M. Activity will be used after Lesson 3.4.

Science:
1. The tundra is the world's coldest biome. This biome is found in the Arctic and at the tops of high mountains. The tundra biome is big. It covers almost $\frac{1}{5}$ of the Earth. Tundra comes from the Finnish word tunturi, which means "a treeless plain." Not much grows in the tundra. There are plants and animals that live in the tundra, though. They have learned to survive in the harsh environment. One animal that lives in the tundra is the polar bear. It is the largest land animal that eats meat. A female polar bear usually has twins. If 6 female polar bears have twins, how many baby polar bears are there in all?

2. Unlock the Problem, Go Math pg. 165, all
3. Real World Problem Solving, Go Math pg. 168 #11-14

4. Real World Problem Solving, Go Math pg. 174 #14-15

Social Studies:
1. The American bald eagle has been a symbol of the United States since 1782. A bald eagle is not bald. Its name comes from the word piebald, which means "marked with white." You can find the bald eagle used in several places: on the back of a one dollar bill, on coins, on the Great Seal, and on the President's flag. It took the Founding Fathers six years to choose the bald eagle for the national emblem. It was chosen because it represented strength, courage, freedom, and immortality. A female bald eagle lays up to 3 eggs. If there are 5 nests and each has 3 eggs, how many eggs are there in all?

Language Arts:
1. Collection Times Four (From the Grab and Go Differentiated Centers Kit)
2. The Workshop (From the Grab and Go Differentiated Centers Kit)
3. Here's What I Do (From the Grab and Go Differentiated Centers 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:	**Benchmarks & Summative Assessments:**

• Teacher Observations • Exit Tickets • Quizzes • Self Assessments • Math Journals • Homework/Classwork • Teacher created 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	Utilize a multi-sensory (VAKT) approach during instruction, provide alternate presentations of skills by varying the method	Extend time requirements, preferred seating, positive reinforcement, check often for understanding/review, oral/visual directions/prompts when	Create an enhanced set of introductory activities, integrate active teaching/learning opportunities, incorporate authentic

individual instruction as needed, modify assessments and/or rubrics.	(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.	necessary, supplemental materials including use of an online bilingual dictionary, and modified assessment and/or rubric.	components, propose interest-based extension activities, and connect students to related content.

NJSLS CAREER READINESS, LIFE LITERACIES & KEY SKILLS	**Disciplinary Concept(s):** Critical Thinking and Problem Solving	
	Core Ideas:	With a growth mindset, failure is an important part of success.
	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*	**x**	Standards in Action: *Climate Change*