








Marking Period	Unit Title	Recommended Instructional Days
1	Multiply by 1-Digit Numbers	14 - 16 Days
Domain		
<p><i>Strand:</i></p> <p> 4.OA.A.1 Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.</p> <p> 4.OA.A.2 Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.</p> <p> 4.OA.A.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. 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.</p> <p> 4.NBT.B.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p> <p>Key:</p> <p>  Major Cluster  Supporting Cluster  Additional Cluster </p>		
<p>Progress Indicator: ◊ Tests ◊ Homework / Classwork ◊ Projects ◊ Formative assessments ◊ Summative assessments</p>		

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 NJSL-CLKS within Unit

Essential Questions:

Lesson 2.1 How can you model multiplication comparisons?

Lesson 2.2 How does a model help you solve a comparison problem?

Lesson 2.3 How does understanding place value help you multiply tens, hundreds, and thousands?

Lesson 2.4 How can you estimate products by rounding and determine if exact answers are reasonable?

Lesson 2.5 How can you use the Distributive Property to multiply a 2-digit number by a 1-digit number?

Lesson 2.6 How can you use expanded form to multiply a multidigit number by a 1-digit number?

Lesson 2.7 How can you use place value and partial products to multiply by a 1-digit number?

Lesson 2.8 How can you use mental math and properties to help you multiply numbers?

Lesson 2.9 When can you use the draw a diagram strategy to solve a multistep multiplication problem?

Lesson 2.10 How can you use regrouping to multiply a 2-digit number by a 1-digit number?

Lesson 2.11 How can you use regrouping to multiply?

Lesson 2.12 How can you represent and solve multistep problems using equations?

Essential Understandings:

Lesson 2.1 Relate multiplication equations and comparison statements.

Lesson 2.2 Solve problems involving multiplicative comparison and additive comparison.

Lesson 2.3 Multiply tens, hundreds, and thousands by whole numbers through 10.

Lesson 2.4 Estimate products by rounding and determine if exact answers to multiplication problems are reasonable.

Lesson 2.5 Use the Distributive Property to multiply a 2-digit number by a 1-digit number.

Lesson 2.6 Use expanded form to multiply a multidigit number by a 1-digit number.

Lesson 2.7 Use place value and partial products to multiply a multidigit number by a 1-digit number.

Lesson 2.8 Use mental math and properties to multiply a multidigit number by a 1-digit number.

Lesson 2.9 Use the *draw a diagram* strategy to solve multistep problems.

Lesson 2.10 Use regrouping to multiply a 2-digit number by a 1-digit number.

Lesson 2.11 Use regrouping to multiply a multidigit number by a 1-digit number.

Lesson 2.12 Represent and solve multistep problems using equations.

Vocabulary:

- Distributive Property
- Estimate
- Factor
- Partial Product
- Place Value
- Product
- Regroup
- Round

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:

STEM Activity: In Chapter 2, students extend their understanding of multiplying by 1-digit numbers, such as multiplying 2-, 3- and 4-digit numbers by 1-digit numbers. These same topics are used often in the development of various science concepts and process skills. For example, students can find out how long before savings generated from home improvements will pay for themselves using multiplication. 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 2, students connect math and science with the S.T.E.M. Activity Heat Proofing a Home and the accompanying worksheets (pages 105 and 106). Through this S.T.E.M. Activity, students will connect to the GO Math! Chapter 2 concepts and skills with various energy saving techniques, including determining the costs of different home improvements. It is recommended that this S.T.E.M. Activity will be used after Lesson 2.12.

Science:

An orca whale is 30 feet long. A blue whale is 3 times the length of an orca whale.
 Which equation shows the relationship between the lengths of the orca whale and the blue whale?

- A. $3 \times 30 = 90$
- B. $3 + 30 = 33$
- C. $3 \times 10 = 30$
- D. $30 + 30 + 30 + 30 = 120$

Language Arts:

1. Vocabulary Preview Activity, Go Math pg.62
2. Vocabulary Game, Go Math pg.62A
3. The Write Way, Go Math pg. 62B
4. Connect to Reading, Go Math pg. 84

Spot Light On: *Use random response strategies.*

Social and Emotional Learning: Competencies	Social and Emotional Learning: Sub-Competencies
SEL Competencies: <ul style="list-style-type: none"> • Self- awareness • Social Awareness • Self- Management • Relationship Skills • Responsible Decision-Making 	<ul style="list-style-type: none"> • 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.

Grade 4 Mathematics
Unit 2: Multiply by 1-Digit Numbers

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		<ul style="list-style-type: none"> • 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) <i>To show evidence of meeting the standard/s, students will successfully engage within:</i>		Assessments (Summative) <i>To show evidence of meeting the standard/s, students will successfully complete:</i>	
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 <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, 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 <i>Strategies & 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.	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, 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		
	<p>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.</p>		

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	<p>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.</p>
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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>	X	Diversity & Inclusion: <i>N.J.S.A. 18A:35-4.36a</i>	Standards in Action: <i>Climate Change</i>