Marking	Unit	Recommended				
Period	Title	Instructional Days				
2	Divide by a 1-Digit Number	14 - 16 Days				
Domain						
Strand:						
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.						
4.OA.A.3 Use the four operations with whole numbers to solve problems. 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.						
4.NBT.B.6 Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.						
Key: Major Cluster Supporting Cluster O Additional Cluster						
Progress Indicator:						
Mathematical Practices:						
 Make sense of problems and persevere in solving them. Reason abstractly and quantitatively. 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 use multiples to estimate quotients?

Lesson 4.2 How can you use models to divide whole numbers that do not divide evenly?

Lesson 4.3 How can you use remainders in division problems?

Lesson 4.4 How can you divide numbers through thousands by whole numbers to 10?

Lesson 4.5 How can you use compatible numbers to estimate quotients?

Lesson 4.6 How can you use the Distributive Property to find quotients?

Lesson 4.7 How can you use repeated subtraction and multiples to find quotients?

Lesson 4.8 How can you use partial quotients to divide by 1-digit divisors?

Lesson 4.9 How can you use base-ten blocks to model division with regrouping?

Lesson 4.10 How can you use place value to know where to place the first digit in the quotient?

Lesson 4.11 How can you divide multi-digit numbers and check your answers?

Lesson 4.12 How can you use the strategy, *draw a diagram*, to solve multistep division problems?

Essential Understandings:

Lesson 4.1 Use multiples to estimate quotients.

Lesson 4.2 Use models to divide whole numbers that do not divide evenly.

Lesson 4.3 Use remainders to solve division problems.

Lesson 4.4 Divide tens, hundreds, and thousands by whole numbers to 10.

Lesson 4.5 Use compatible numbers to estimate quotients.

Lesson 4.6 Use the Distributive Property to find quotients.

Lesson 4.7 Use repeated subtraction and multiples to find quotients.

Lesson 4.8 Use partial quotients to divide.

Lesson 4.9 Use base-ten blocks to model division with regrouping.

Lesson 4.10 Use place value to determine where to place the first digit of a quotient.

Lesson 4.11 Divide multi-digit numbers by 1-digit divisors.Lesson 4.12 Solve multistep division problems by using the strategy to draw a diagram.

Vocabulary:

- Compatible Numbers
- Distributive Property
- Dividend
- Divisor
- Multiple
- Partial Quotient
- Quotient
- Remainder

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:

♦ <u>Suggested Sample Tasks</u>:

STEM Activity: In Chapter 4, students extend their understanding of dividing by 1-digit numbers, such as using repeated subtraction to divide. These same topics are frequently used in the development of various science concepts and process skills. For example, students can use division to find speeds when the distance traveled and the time it took to travel that distance are given. Students can make the connection between math and science through the S.T.E.M. activities and activity worksheets found at Think Central.

In Chapter 4, students connect math and science with the S.T.E.M. Activity Fast or Slow? and the accompanying worksheets (pages 109 and 110). Through this S.T.E.M. Activity, students will connect to the GO Math! Chapter 4 concepts and skills with various concepts such as speed and velocity, including using division to find rates of speed. It is recommended that this S.T.E.M. Activity will be used after Lesson 4.12.

Science:

1. A class in biology wants to study the effect of sunlight on plant growth. The students want to divide the test plants into three equal groups; one group will grow in a well-lit window, one group in a corner away from the window, and the third group in a dark closet. They have 26 plants to use in their experiment. How many plants will be in each group? How many, if any, will be leftover? You may use a model.

2. The strongest and most dangerous hurricanes are Category 5 hurricanes, which have wind speeds greater than 155 miles per hour. Hurricanes are named by the National Hurricane Center, and alternate between male and female names. If a hurricane is particularly destructive, its name is

retired and never used again. Suppose a hurricane moves at an average speed of 9 miles per hour. About how long would it take for the hurricane to move 183 miles? Use compatible numbers to estimate.

2. The amount of water in snow varies greatly. The air temperature, the wind speed, and the crystal structure of the snow all affect the water content. Under certain conditions, 6 inches of snow will melt to form 1 inch of water. If there were a column of snow that was 318 inches tall, how many inches of water would that be when it melted?

Social Studies:

1. The United States Constitution divides the government into three branches; executive, legislative, and judicial. There are 9 justices on the United States Supreme Court, part of the judicial branch. If in 1 month, 30 cases were divided evenly among the nine justices (while serving as circuit justices), how many cases would each justice hear? How many, if any, are left over? You may use a model.

2. The coastline for the eastern United States along the Atlantic Ocean is longer than the western coastline along the Pacific Ocean. The Pacific coast, which includes California, Oregon, and Washington, is 1,293 miles. The Atlantic coast, which includes 15 states from Maine to Florida, is 2,069 miles. Alaska and Hawaii, which have Pacific coastlines, have 6,330 miles of coastline combined. Suppose a sailboat follows the entire Atlantic coastline, and the crew takes one picture every 7 miles. About how many pictures will the crew take? Use compatible numbers to estimate.

3. The Spanish founded St. Augustine in 1565. In the mid 1600s, they decided they needed a strong fort to defend their colony of La Florida from the British. Earlier forts were made of wood and were burned or washed away by storms. Work began in 1672. The Castillo de San Marcos was built of coquina rock, a type of limestone. The walls facing away from the harbor were 12 feet thick. How many yards is that? There are 3 feet in 1 yard. You may use repeated subtraction to find the quotient.

Language Arts:

1. Vocabulary Preview Activity, Go Math pg.196

- 2. Vocabulary Game, Go Math pg.196 A
- 3. The Write Way, Go Math pg. 196 B

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

Social and Emotional Learning:	Social and Emotional Learning:			
<i>Competencies</i>	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. 			

Grade 4 Mathematics	September
Unit 4: Divide by a 1-Digit Number	2022

		 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. 			
Assessment To show evidence of meeting the s engage	s (Formative) tandard/s, students will successfully e within:	Assessments (Summative) To show evidence of meeting the standard/s, students will successfully complete:			
Formative Assessments: • Teacher Observations • Exit Tickets Journals • Homework/Classwork • Te	• Quizzes • Self Assessments • Math eacher created assessments	Benchmarks & Summative Assessments: Chapter/Unit Assessments • Standardized Tests • District Assessments • Project-based Assessments			
Differentiated Student Access to Content: Teaching and Learning <u>Resources/Materials</u>					
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 <u>Strategies & Techniques</u>							
Core Resources	Alternate Core Resources IEP/504/At-Risk/ESL	ELL Core Resources	Gifted & Talented Core				
Deliver instruction utilizing varied learning styles including audio, visua and tactile/kinesthetic, provide individual instruction as needed, mod assessments and/or rubrics.	l, 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.				
	Disciplinary Concept(s): Creativity	and Innovation					
NJSLS CAREER	Core Ideas:	Curiosity and willingness to try new ideas (intellectual risk taking) contributes to the development of creativity and innovation.					
READINESS, LIFE LITERACIES & KEY SKILLS	Performance Expectation/s:	9.4.5.CI.3 : Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.					
	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.
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: <i>Climate Change</i>