Trimester	Unit Title	Recommended Instructional Days
1	**Represent and Interpret Data**	**11 - 15 days**

Domain

Strand:

3.MD.B.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.

3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.

3.NBT.A.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

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 2.1** How can you use the strategy, *make a table*, to organize data and solve problems? **Lesson 2.2** How can you read and interpret data in a picture graph? **Lesson 2.3** How can you draw a picture graph to show data in a table? **Lesson 2.4** How can you read and interpret data in a bar graph? **Lesson 2.5** How can you draw a bar graph to show data in a table or picture graph? **Lesson 2.6** How can you solve problems using data represented in bar graphs? **Lesson 2.7** How can you read and interpret data in a line plot and use data to make a line plot? **Essential Understandings:** **Lesson 2.1** Organize data in tables and solve problems by using the strategy, *make a table*. **Lesson 2.2** Read and interpret data in a scaled picture graph. **Lesson 2.3** Draw a scaled picture graph to show data in a table. **Lesson 2.4** Read and interpret data in a scaled bar graph. **Lesson 2.5** Draw a scaled bar graph to show data in a table or picture graph. **Lesson 2.6** Solve one- and two-step compare problems using data represented in scaled bar graphs. **Lesson 2.7** Read and interpret data in a line plot and use data to make a line plot.

Vocabulary:
- Frequency Table
- Key
- Picture Graph
- Bar Graph
- Horizontal Bar Graph
- Scale
- Vertical Bar Graph
- Line Plot

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: Forces
Interdisciplinary Connections: Math and Science
Content: Hands On Activity: Demonstrating How Forces Affect Motion
(Unit 2 Lesson 1; Pages 77-79)

Science
Objective: Determine how a strong force and weak force affects the motion of an object.
Skills Assessed:
● Push and Pull
● 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
● Time With a Stopwatch

Interdisciplinary Connections:

STEM Activity: In Chapter 2, students extend their understanding of representing and interpreting data, such as creating bar graphs from a given data set. 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 2, students connect math and science with the S.T.E.M. Activity Communities of Populations and the accompanying worksheets (pgs. 99 - 100 (In correlation with ScienceFusion pgs. 436 - 437)). Through this S.T.E.M. Activity, students will connect to the GO Math! Chapter 2 concepts and skills with various ways to display and interpret data, including creating a bar graph from a given data set. It is recommended that this S.T.E.M. Activity be used after Lesson 2.5.

Science:
1. Monarch butterflies migrate south in the fall. They spend the winter in warm areas, like Florida and Texas. Then they go north in the spring. Red admiral and American lady butterflies also migrate. Have students name their favorite migrating butterfly. Have them make a tally table to show their answers. Then have students find how many more students chose one butterfly than another using the strategy of making a frequency table.

2. A gemstone is a rock or mineral that can be cut and polished and used in jewelry. You can compare gemstones by their hardness. Some common gemstones, in order from softest to hardest, are pearls, turquoise, emeralds, rubies, and diamonds. Ask your classmates to name their favorite gemstone from the list above. Make a picture graph to display the data.

Social Studies:
1. The Grand Canyon, located in Arizona, is a steep-sided gorge. It is a national park. A natural landmark is a place that has outstanding historical or cultural importance. Yellowstone and the Everglades are natural landmarks and national parks. Have students choose which national park they would like to visit. Have them make a tally table to show their answers. Then have students find how many fewer students chose one park than another using the strategy of making a frequency table.

2. The executive branch of the U.S. government has the power to enforce laws. At the head of the executive branch is the president. The president is also commander-in-chief of the military. Ask students to name their favorite of the first four presidents: George Washington, John Adams, Thomas Jefferson, or James Madison. Make a picture graph to display the data.

Language Arts:
1. Diego's Perfect Fit (From the Grab-and-Go Differentiated Centers Kit)
2. The Class Trip (From the Grab-and-Go Differentiated Centers Kit)
3. Connect to Reading, Go Math pg. 128

Spot Light On: *Use random response strategies.*

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,	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

Desmos			

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	**Disciplinary Concept(s):** Work Productively in Teams	
	Core Ideas:	The ability to solve problems effectively begins with gathering data, seeking resources, and applying critical thinking skills.

LITERACIES & KEY 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*