Trimester	Unit Title	Recommended Instructional Days
3	**Represent and Interpret Data**	**11-13 days**

Domain: Data Literacy

Strand:

 **3.DL.A.1** Develop data-based questions and decide what data will answer the question. (e.g. "What size shoe does a 3rd grader wear?", "How many books does a 3rd grader read?")

 **3. DL.A.2** Collect student-centered data (e.g. collect data on students' favorite ice cream flavor) or use existing data to answer data-based questions.

 **3.DL.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.*

Key:

 **Major Cluster**  **Supporting Cluster**  **Additional Cluster**  **Climate Change Opportunity**

Progress Indicator: ◊ Tests ◊ Homework / Classwork ◊ Projects ◊ Formative assessments ◊ Summative assessments ◊ Performance 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 15.1: What methods can we use to organize and display data in a table to make it clear and easy to understand?
Lesson 15.2: What strategies can we use to read and interpret data presented in a picture graph to extract meaningful information?
Lesson 15.3: What steps and techniques can we follow to accurately create a picture graph from data organized in a table?
Lesson 15.4: What methods can we use to read and interpret the information presented in a bar graph to understand the data?
Lesson 15.5: What processes can we use to create an accurate bar graph from data given in a table or picture graph?
Lesson 15.6: What are the best practices for reading, interpreting, and creating line plots to represent data accurately?
Lesson 15.7: What techniques can we use to read and understand data shown in a circle graph to gain insights from the information?
Lesson 15.8: How can we analyze and use data from various types of graphs to solve real-world problems effectively?

Essential Understandings:
Lesson 15.1: Organizing data in tables allows us to clearly display and compare information, making it easier to identify patterns and draw conclusions.
Lesson 15.2: Interpreting picture graphs involves understanding symbols and their quantities, which helps us quickly grasp and communicate information.
Lesson 15.3: Creating picture graphs from tables requires translating numerical data into visual representations, which helps in making data more accessible and engaging.
Lesson 15.4: Reading and interpreting bar graphs involves comparing bar lengths, which allows us to understand the relationships between different data sets.
Lesson 15.5: Constructing bar graphs from tables or picture graphs involves accurately plotting data points and scales, which helps in visually communicating information.
Lesson 15.6: Line plots display data points along a number line, helping us identify patterns within the data.
Lesson 15.7: Circle graphs represent parts of a whole, which helps us compare different categories within a dataset.
Lesson 15.8: Analyzing data from different graphs allows us to make informed decisions and solve problems by interpreting and applying the information presented.

Vocabulary:
- categorical data
- frequency table
- key
- horizontal bar graph
- scale
- vertical bar graph
- circle graph

Suggested Activity Description:
Waggle, On the Spot Videos, Tier 2 and 3 Intervention Resources, Vocabulary Activities, Grab and Go Differentiation Kit, Explore and Guided/Independent Practice related to the NJSLS, Essential Question Discussion and Check-In, Share and Show, Basic Skills Review, Manipulative Activity, Reteach Activity, Reading Strategies Activity, Making Connections, Multilingual Support, Performance Task, Enrich Activity, Exit Ticket

Interdisciplinary Connections:
Science:
1. See Cross-Curricular box on Teacher Edition page 723.
2. See Cross-Curricular box on Teacher Edition page 735.

Social Studies:
1. See Cross-Curricular box on Teacher Edition page 723.
2. See Cross-Curricular box on Teacher Edition page 735.

Language Arts:
1. Problem #4 on TB page 723.
2. Problem #6 on TB page 729.
3. Problem #5 on TB page 735.
4. Problem #6 on TB page 741.

Physical Education:
1. Problems #9-10 on TB page 746.

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 • 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, Interactive Student Edition, ST MATH 60 minutes a week, Waggle, Math on the Spot Videos, iReady, Khan Academy, Illustrative Mathematics, Learn360, TeacherTube, BrainPOP, Freckle, LearnZillion, MobyMax, Achieve the Core, Desmos, RTI	Reteaching worksheets, Skill building workbook, Math manipulatives, iTools, Leveled practice worksheets	Multilingual glossary, eGlossary, Multilingual Activities on ED, Vocabulary Cards, Success for English Learners worksheets, Leveled Strategies for English Learners, Linguistic Support	ST MATH special projects, Enrichment worksheets, Art of Problem Solving, Leveled assessments

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, repeat	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 student to related

NJSLS CAREER READINESS, LIFE LITERACIES & KEY SKILLS	**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.
	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*