| Marking Period | Unit Title | Recommended Instructional Days |
|---|---|---|
| **1** | **Place Value, Addition, Subtraction to One Million** | **9 - 11 days** |

**Domain**

***Strand:***

**4.NBT.A.1** Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. *For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.*

**4.NBT.A.2** Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

**4.NBT.A.3** Use place value understanding to round multi-digit whole numbers to any place.

**4.NBT.B.4** Fluently add and subtract multi-digit whole numbers using the standard algorithm.

**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 1.1** How can you describe the value of a digit?
**Lesson 1.2** How can you read and write numbers through hundred thousands?
**Lesson 1.3** How can you compare and order numbers?
**Lesson 1.4** How can you round numbers?
**Lesson 1.5** How can you rename a whole number?
**Lesson 1.6** How can you add whole numbers?
**Lesson 1.7** How can you subtract whole numbers?
**Lesson 1.8** How can you use the strategy, *draw a diagram,* to solve comparison problems with addition and subtraction?

**Essential Understandings:**

**Lesson 1.1** Model the 10-to-1 relationship among place-value positions in the base-ten number system.
**Lesson 1.2** Read and write whole numbers in standard form, word form, and expanded form.
**Lesson 1.3** Compare and order whole numbers based on the values of the digits in each number.
**Lesson 1.4** Round a whole number to any place.
**Lesson 1.5** Rename whole numbers by regrouping
**Lesson 1.6** Add whole numbers and determine whether solutions to addition problems are reasonable.
**Lesson 1.7** Subtract whole numbers and determine whether solutions to subtraction problems are reasonable.
**Lesson 1.8** Use the strategy, *draw a diagram,* to solve comparison problems with addition and subtraction.

**Vocabulary:**
- Estimate
- Expanded Form
- Inverse Operations
- Period
- Round
- Standard Form
- Thousand
- Word Form

**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:** Energy Is All Around
**Interdisciplinary Connections:** Math and Science
**Content:** Exploration 1: Sound? Light? Heat? Motion? Energy!
Performance Task (Unit 2 Lesson 1; Pages 70-75)

**Science**
Objective: Learn definition of energy and how it can be moved through electric currents.
Skills Assessed:
● Identify patterns related to energy
● 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
● Apply concept of division to calculate answers

**Interdisciplinary Connections:**

**STEM Activity**: In Chapter 1, students extend their understanding of place value concepts and computations with larger numbers, such as comparing numbers or addition or subtraction with larger numbers. 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 1, students connect math and science with the S.T.E.M. Activity Math and Science Skills and the accompanying worksheets (pages 103 and 104). Through this S.T.E.M. Activity, students will connect to the GO Math! Chapter 1 concepts and skills with various science process skills, including comparing population sizes. Students will also discover the overall role that math plays in science. It is recommended that this S.T.E.M. Activity be used after lesson 1.7

**Science:**
1. Windmills use wind to make electricity. There is a wind farm in Wisconsin that can supply 3,300 homes with power. The towers at this farm are 213 feet tall, and the blades on the windmills are 77 feet long. This wind farm produces about 63,000 kilowatt-hours of electricity every day. In the number of kilowatt-hours above, what is the value of the digit 6? The digit 3?

2. Xeriscaping is a way of landscaping that conserves water. An average lawn needs about 38,000 liters of water a year. By finding plants that are native to your area of the country and putting mulch around them to hold in moisture, you can cut down the amount of lawn that you have to water. Then that water can be used for other things. What is the value of the 8 in 38,000?

**Social Studies:**
1. The telegraph was an important source of information during the Civil War. The telegraph uses Morse Code for letters and numbers. The codes 1–9 looked like this in Morse Code:

| | | |
|---|---|---|
| 1: • – – – – | 2: • • – – – | 3: • • • – – |
| 4: • • • • – | 5: • • • • • | 6: – • • • • |
| 7: – – • • • | 8: – – – • • | 9: – – – – • |

- Have students use Morse Code to work with place value. For example: What is the value of the • • • • – in the number 340,567?

2. Alaska is the largest state in the United States. It has a longer coastline than all the other U.S. states combined. Alaska borders both the Pacific Ocean and the Arctic Ocean. Alaska's coastline is 6,640 miles long. Florida has the second longest coastline in the United States. Its coastline measures 1,350 miles. How many miles longer is Alaska's coastline than Florida's?

**Language Arts:**
1. Vocabulary Preview Activity, Go Math pg. 4

2. Vocabulary Game, Go Math pg. 4A-4C
3. The Write Way, Go Math pg. 4D

**Spot Light On:** *Seek multiple perspectives and different answers to questions.*

| **Social and Emotional Learning:** ***Competencies*** | **Social and Emotional Learning:** ***Sub-Competencies*** |
|---|---|
| SEL Competencies:<br>• Self- awareness<br>• Social Awareness<br>• Self- Management<br>• Relationship Skills<br>• Responsible Decision-Making | • Recognizing the importance of self-confidence in handling daily tasks and challenges.<br>• Demonstrate an awareness of the expectations for social interactions in a variety of ways.<br>• Demonstrate an understanding of the need for mutual respect when viewpoints differ.<br>• Identify and apply ways to persevere through alternative methods to achieve goals.<br>• Utilize positive communication and social skills to interact effectively with others.<br>•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:**<br>• Teacher Observations • Exit Tickets • Quizzes • Self Assessments • Math Journals • Homework/Classwork • Teacher created assessments | **Benchmarks & Summative Assessments:**<br>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, | Reteaching worksheets, Skill building workbook, Math manipulatives, Leveled practice | Dictionary for native language, Video tutorial in native language, Success for English Learners worksheets, Go | ST Math Challenge Objectives, G&T tasks, Enrichment worksheets, Art of Problem |

| | | | |
|---|---|---|---|
| Illustrative Mathematics, Learn360, TeacherTube, BrainPOP, Freckle, LearnZillion, MobyMax, 60 minutes of weekly ST Math, Edulastic, Achieve the Core, Desmos | worksheets | Math Leveled Strategies for English Learners, Go Math Linguistic Support | 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 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, | 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. |

| | | | |
|---|---|---|---|
| | and/or break assignments into segments of shorter tasks. | | |

| | | |
|---|---|---|
| **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.**<br>**Attend to financial well-being.**<br>**Consider the environmental, social and economic impacts of decisions.**<br>**Demonstrate creativity and innovation.**<br>**Utilize critical thinking to make sense of problems and persevere in solving them.**<br>**Model integrity, ethical leadership and effective management.**<br>**Plan education and career paths aligned to personal goals.**<br>**Use technology to enhance productivity, increase collaboration and communicate effectively.**<br>**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* |