Long Beach Island Consolidated School District Curriculum Guide

Grade: 1	Content Area: Mathematics

Introduction:

Students in First Grade Math will complete Five units including adding and subtracting within 20, using addition and subtraction to solve word problems, use place value, measuring using different units and identifying shapes by naming features, and reason with shapes and their attributes. All math units follow the NJ Student Learning Objectives. Student progress will be measured in a variety of methods.

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Original Adoption: October 23, 2018

Revised on: July 1, 2019

Revised by: C. Sheplin

Recommended Pacing Guide	
Unit 1: Adding and Subtracting Within 20	39 Days
Unit 2: Word Problems Involving Addition and Subtraction	30 Days
Unit 3: Understanding Place Value	21 Days
Unit 4: Measurement & Shapes	36 Days
Unit 5: Reasons with Shapes and Their Attributes	25 Days

Unit 1: Add and Subtract within 20	Duration: 39 Days

Standards/Learning Targets	

New Jersey Student Learning Standards:
- 1. NBT.A.1 : Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
- 1.OA.C.5 : Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
- 1. NBT.B.2 : Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
    a. 10 can be thought of as a bundle of ten ones — called a "ten."
    b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six,
       seven, eight, or nine ones.
    c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six,
       seven, eight, or nine tens (and 0 ones).
- 1.OA.C.6 : Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 − 4 = 13 − 3 − 1 = 10 − 1 = 9); using the relationship between addition and subtraction (e.g., knowing

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that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).
- 1.OA.B.3 : Apply properties of operations as strategies to add and subtract.3 Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.) {Students need not use formal terms for these properties}
- 1.OA.B.4 : Understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.

Standards for Mathematical Practice:
- MP.1 Make sense of problems and persevere in solving them.
- MP.4 Model with mathematics.
- MP.5 Use appropriate tools strategically.
- MP.8 Look for and express regularity in repeated reasoning.

Interdisciplinary Connections:

Reading:

- **RI.1.10** With prompting and support, read informational texts at grade level text complexity or above.
- **RL.1.7** Use illustrations and details in a story to describe its characters, setting, or events.

Speaking and Listening:

- **SL.1.1** Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.

Writing:

- **W.1.5** With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers and self-reflection, and add details to strengthen writing and ideas as needed.

Technology Standards:
- A. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations
  - 8.1.2.A.1 Identify the basic features of a digital device and explain its purpose
  - 8.1.2.A.4 Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
- C. Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
  - 8.1.2.D.1 Develop an understanding of ownership of print and nonprint information.

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○ 8.1.2.E.1 Use digital tools and online resources to explore a problem or issue.
● F: Critical thinking, problem solving, and decision making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

21st Century Themes/Career Readiness:
● CRP1. Act as a responsible and contributing citizen and employee.
● CRP8. Utilize critical thinking to make sense of problems and persevere in solving them
● CRP11. Use technology to enhance productivity.

21st Century Life and Career Standards:
● 9.2.4.A.1 Identify reasons why people work, different types of work, and how work can help a person achieve personal and professional goals.
● 9.2.4.A.2 Identify various life roles and civic and work-related activities in the school, home, and community.
● 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Evidence of Student Learning

Formative Tasks:
● Solve and Share
● Exit Slips
● Math Center Activities
● Math Games
● Daily Review
● Quick Check Quizzes
● Draw and Show

Alternative Assessments:
● Verbal Checks
● Checklists
● Rubrics
● Seesaw

Summative Assessments:
● Topic Tests
● Quick Check Quizzes
● Topic Performance Assessment

Benchmark Assessments:
● Pearson Benchmark Assessments
● Beginning of Year SGO
● Mid-Year SGO
● End of Year SGO

Knowledge & Skills

Enduring Understandings:
● Add and subtract within 20
● Understand and apply the properties of operations and the relationship between addition and subtraction.
● Extend the counting sequence.

Essential Questions:
● What are the written or verbal numerals starting at any number less than 100?
● When can I count forward or backwards from any number within

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● Understand place value.	20 to solve addition & subtraction problems? ● What is the value of the number in the tens & ones place up to 20? ● How do you add or subtract whole numbers within 20 using strategies including making a 10 or decomposing a number leading to a 20? ● What are the properties of operations to add or subtract whole numbers within 20 (Commutative & Associative properties of addition)? ● What are the unknown addends (within 20) to solve subtraction problems?

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Core Instructional & Supplemental Materials

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Suggested Activities/Resources:	Varied Levels of Text:
● [Happy Numbers](#) ● [Reflex Math](#) ● Extramath.org ● Seesaw ● Smarty Ants ● SMARTboard applications ● Online games ● Grades K-6: Envision 2.0, 2016 ● Envisions online resources	● *Building With Shapes* Mooney, Carla C ● *The Philharmonic Gets Dressed* Kuskin, Karla ● *Sir Cumference And All The King's Tens* ● *Grandma's Button Box* Aber, Linda Williams K ● *The Great Graph Contest* Leedy, Loreen M ● *The Action Of Subtraction* Cleary, Brian P. N ● *All About Math Symbols (=, +, -, <, >, Degrees, $, Cents)* Allen, Nancy G ● *Fair Bear Share* Murphy, Stuart J. ● *Herding A Hundred: Counting The Sheep* Loughran, Donna N ● *On The Playground: How Do You Build Place Value?* Loughran, Donna N ● *The Philharmonic Gets Dressed* Kuskin, Karla M

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Modifications/Accommodations

English Language Learners:
- Provide clear and specific directions

- Model directions and provide gestures to increase understanding

- Simplify written and verbal instructions

- Pre-teach as often as possible- share videos, articles, vocabulary etc. with ELL students prior to use in class

- Allow extra time

- Test key concepts and main ideas

- Simplify instructions

- Give students objective tests: matching, multiple choice, etc.

- Provide manipulatives

- Use alternative assessments such as physical demonstration and pictorial products

- Provide shorter assessments

- Grade content vs. mechanics

- Read assessments aloud

- Allow open-book or open-note tests

Special Education/504 Plans/Students with Disabilities:
- Follow specific students accommodations and modifications as listed in individual student IEP or 504 plan
- Differentiate tests to meet the needs of students
- Shorten tests and give in multiple sessions if needed
- Reteach/Review before giving assessments
- Read assessment directions for each section to student(s)
- Allow the use of tools such as a computer or iPad
- Allow the use of manipulatives such as counters during testing
- Highlight key parts of equations or word problems for student(s)
- Allow verbal answers
- Print tests with larger font
- Allow for extra time if needed/necessary

Students at Risk of Failure:
- Make sure children feel welcome and comfortable while being discrete

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- Provide structure and adhere to a consistent daily routine with clear and concise rules
- Allow students to complete assignments in school
- Use study carrels and other independent spaces as "private offices" for students.
- Provide a quiet area for one-to-one instruction with the teacher, a teacher assistant or a peer helper.

Economically Disadvantaged:
- Allow students to finish assignments independently, or give them the opportunity to complete tasks at their own pace.
- Initiating an interactive journal with the parent about what's happening at school and at home could help with teacher–parent dialogue.
- Providing needed academic resources (paper, pencils, computer time)

Culturally Diverse:
- Establish a positive connection with parents
- Provide positive praise to increase motivation
- Provide social/emotional support
- Support students in developing a positive racial identity

Unit 2: Word Problems Involving Addition and Subtraction	Duration: 30 Days

Standards/Learning Targets

New Jersey Student Learning Standards:
- 1.OA.A.1 : Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawing, and equations with a symbol for the unknown number to represent the problem.
- 1.OA.A.2 : Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- 1.OA.D.7 : Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.
- 1.OA.D.8 : Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = \square - 3$, $6 + 6 = \square$.
- 1.NBT.A.1 : Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

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Standards for Mathematical Practice:
- MP.2 Reason Abstractly and quantitatively.
- MP.4 Model with mathematics.
- MP.5 Use appropriate tools strategically.
- MP.6 Attend to precision.

Interdisciplinary Connections:

Reading:

- **RI.1.10** With prompting and support, read informational texts at grade level text complexity or above.
- **RL.1.7** Use illustrations and details in a story to describe its characters, setting, or events.

Speaking and Listening:

- **SL.1.1** Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.

Writing:

- **W.1.5** With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers and self-reflection, and add details to strengthen writing and ideas as needed.

Technology Standards:
- A. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations
  - 8.1.2.A.1 Identify the basic features of a digital device and explain its purpose
  - 8.1.2.A.4 Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
- B. Creativity and Innovation: Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.
  - F: Critical thinking, problem solving, and decision making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

21st Century Themes/Career Readiness:
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

21st Century Life and Career Standards:
- 9.2.4.A.1 Identify reasons why people work, different types of work, and how work can

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help a person achieve personal and professional goals.
- 9.2.4.A.2 Identify various life roles and civic and work-related activities in the school, home, and community.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Evidence of Student Learning

Formative Tasks:
- Solve and Share
- Exit Slips
- Math Center Activities
- Math Games
- Daily Review
- Quick Check Quizzes
- Draw and Show

Alternative Assessments:
- Verbal Checks
- Checklists
- Rubrics
- Seesaw

Summative Assessments:
- Topic Tests
- Quick Check Quizzes
- Topic Performance Assessment

Benchmark Assessments:
- Pearson Benchmark Assessments
- Beginning of Year SGO
- Mid-Year SGO
- End of Year SGO

Knowledge & Skills

Enduring Understandings:
- Represent and solve problems involving addition and subtraction.
- Work with addition and subtraction equations.
- Extend the counting sequence.

Essential Questions:
- What strategies can you use to add and subtract within 20?
- How can adding 3 whole numbers help you solve word problems?
- How do you determine if an equation with an equal sign is true or false?
- What strategies can you use to solve addition and subtraction equations with a missing whole number in any position?
- How can you use what you already know about counting to count to 120?
- How can you use what you already know about reading and writing numerals to read and write numerals to 120?

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Core Instructional & Supplemental Materials

Suggested Activities/Resources:

- Reflexmath.com
- Happynumbers.com
- Hands on centers
- Manipulatives
- Seesaw
- Teacher Created Materials
- Smarty Ants
- SMARTboard applications
- Online games
- Grades K-6: Envision 2.0, 2016
- Envisions online resources

Varied Levels of Text:

- *Building With Shapes* Mooney, Carla C
- *The Philharmonic Gets Dressed* Kuskin, Karla
- *Sir Cumference And All The King's Tens*
- *Grandma's Button Box* Aber, Linda Williams K
- *The Great Graph Contest* Leedy, Loreen M
- *The Action Of Subtraction* Cleary, Brian P. N
- *All About Math Symbols (=, +, -, <, >, Degrees, $, Cents)* Allen, Nancy G
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- *On The Playground: How Do You Build Place Value?* Loughran, Donna N
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Modifications/Accommodations

English Language Learners:
- Provide clear and specific directions

- Model directions and provide gestures to increase understanding

- Simplify written and verbal instructions

- Pre-teach as often as possible- share videos, articles, vocabulary etc. with ELL students prior to use in class

- Allow extra time

- Test key concepts and main ideas

- Simplify instructions

- Give students objective tests: matching, multiple choice, etc.

- Provide manipulatives

- Use alternative assessments such as physical demonstration and pictorial products

- Provide shorter assessments

- Grade content vs. mechanics

- Read assessments aloud

- Allow open-book or open-note tests

Special Education/504 Plans/Students with Disabilities:
- Follow specific students accommodations and modifications as listed in individual student IEP or 504 plan
- Differentiate tests to meet the needs of students
- Shorten tests and give in multiple sessions if needed
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- Read assessment directions for each section to student(s)
- Allow the use of tools such as a computer or iPad
- Allow the use of manipulatives such as counters during testing
- Highlight key parts of equations or word problems for student(s)
- Allow verbal answers
- Print tests with larger font
- Allow for extra time if needed/necessary

Students at Risk of Failure:
- Make sure children feel welcome and comfortable while being discrete

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- Provide structure and adhere to a consistent daily routine with clear and concise rules
- Allow students to complete assignments in school
- Use study carrels and other independent spaces as "private offices" for students.
- Provide a quiet area for one-to-one instruction with the teacher, a teacher assistant or a peer helper.

Economically Disadvantaged:
- Allow students to finish assignments independently, or give them the opportunity to complete tasks at their own pace.
- Initiating an interactive journal with the parent about what's happening at school and at home could help with teacher–parent dialogue.
- Providing needed academic resources (paper, pencils, computer time)

Culturally Diverse:
- Establish a positive connection with parents
- Provide positive praise to increase motivation
- Provide social/emotional support
- Support students in developing a positive racial identity

Unit 3: Understand Place Value	Duration: 21 Days

Standards/Learning Targets

New Jersey Student Learning Standards:
- 1.NBT.B.2 : Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
    a. 10 can be thought of as a bundle of ten ones — called a "ten."
    b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
    c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
- 1.NBT.B.3 : Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <
- 1.NBT.C.4 : Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models (e.g., base ten blocks) or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

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- 1.NBT.C.5 : Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
- 1.NBT.C.6 **:** Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Standards for Mathematical Practice:
- MP.3 Construct viable arguments and critique the reasoning of others.
- MP.4 Model with mathematics.
- MP.7 Look for and make use of structure.
- MP.8 Look for and express regularity in repeated reasoning.

Interdisciplinary Connections:

Reading:

- **RI.1.10** With prompting and support, read informational texts at grade level text complexity or above.
- **RL.1.7** Use illustrations and details in a story to describe its characters, setting, or events.

Speaking and Listening:

- **SL.1.1** Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.

Writing:

- **W.1.5** With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers and self-reflection, and add details to strengthen writing and ideas as needed.

Technology Standards:
- 8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and
- E: Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.
  - 8.1.2.D.1 Develop an understanding of ownership of print and nonprint information.
  - 8.1.2.E.1 Use digital tools and online resources to explore a problem or issue.

21st Century Themes/Career Readiness:
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.

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- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

21st Century Life and Career Standards:
- 9.2.4.A.1 Identify reasons why people work, different types of work, and how work can help a person achieve personal and professional goals.
- 9.2.4.A.2 Identify various life roles and civic and work-related activities in the school, home, and community.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Evidence of Student Learning

Formative Tasks:
- Solve and Share
- Exit Slips
- Math Center Activities
- Math Games
- Place Value Manipulative Activity
- Daily Review
- Quick Check Quizzes
- Draw and Show

Alternative Assessments:
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Summative Assessments:
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- Topic Performance Assessment

Benchmark Assessments:
- Pearson Benchmark Assessments
- Beginning of Year SGO
- Mid-Year SGO
- End of Year SGO

Knowledge & Skills

Enduring Understandings:
- Understand place value.
- Use place value understanding and properties of operations to add and subtract.

Essential Questions:
- What are the ways to decompose two- digit numbers as the sum of tens and ones for numbers less than 100?
- What are the correct symbols using <, >, and = to compare two digit numbers?
- What are the ways to add a 2-digit and a 1-digit number, and a 2-digit number and a multiple of 10, using concrete models or drawings (sums within 50). Add tens and tens, and

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	ones and ones, by decomposing 2-digit numbers and composing an additional ten when necessary (e.g., 18 + 20 equals 10 + 8 + 20 equals 30 + 8 equals 38; and, 37 + 5 equals 30 + 7 + 5 equals 30 + 12 equals 30 + 10 + 2 equals 40 + 2 equals 42)? ● What mental strategies can help you find ten more or ten less than a number without having to count and explain the reasoning used? ● How do we subtract multiples of ten from multiples of ten (numbers less than 100, differences greater than or equal to zero) and explain the reasoning used?

Core Instructional & Supplemental Materials

Suggested Activities/Resources: ● Reflexmath.com ● Happynumbers.com ● Manipulatives ● Hands on centers ● Seesaw ● Brainpopjr.com ● Smarty Ants ● SMARTboard applications ● Online games ● Grades K-6: Envision 2.0, 2016 ● Envisions online resources	**Varied Levels of Text:** ● *Building With Shapes* Mooney, Carla C ● *The Philharmonic Gets Dressed* Kuskin, Karla ● *Sir Cumference And All The King's Tens* ● *Grandma's Button Box* Aber, Linda Williams K ● *The Great Graph Contest* Leedy, Loreen M ● *The Action Of Subtraction* Cleary, Brian P. N ● *All About Math Symbols (=, +, -, <, >, Degrees, $, Cents)* Allen, Nancy G ● *Fair Bear Share* Murphy, Stuart J. ● *Herding A Hundred: Counting The Sheep* Loughran, Donna N ● *On The Playground: How Do You Build Place Value?* Loughran, Donna N ● *The Philharmonic Gets Dressed* Kuskin, Karla M

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Modifications/Accommodations

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- Allow extra time

- Test key concepts and main ideas

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- Give students objective tests: matching, multiple choice, etc.

- Provide manipulatives

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Students at Risk of Failure:
- Make sure children feel welcome and comfortable while being discrete

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- Provide structure and adhere to a consistent daily routine with clear and concise rules
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Economically Disadvantaged:
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- Initiating an interactive journal with the parent about what's happening at school and at home could help with teacher–parent dialogue.
- Providing needed academic resources (paper, pencils, computer time)

Culturally Diverse:
- Establish a positive connection with parents
- Provide positive praise to increase motivation
- Provide social/emotional support
- Support students in developing a positive racial identity

Unit 4: Measurement & Shapes	Duration: 36 Days

Standards/Learning Targets

New Jersey Student Learning Standards:
- 1.MD.A.1 : Order three objects by length; compare the lengths of two objects indirectly by using a third object.
- 1.MD.A.2: Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.
- 1.MD.A.3: Tell and write time in hours and half-hours using analog and digital clocks.
- 1.G.A.1: Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.
- 1.OA.A.1: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- 1.OA.C6: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 – 4 = 13 – 3 – 1 = 10 – 1 = 9$); using the relationship between addition and subtraction (e.g., knowing

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that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).
- 1.NBT.A.1: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

Standards for Mathematical Practice:
- MP.2 Reason Abstractly and quantitatively.
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Interdisciplinary Connections:

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Speaking and Listening:

- **SL.1.1** Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.

Writing:

- **W.1.5** With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers and self-reflection, and add details to strengthen writing and ideas as needed.

Technology Standards:
  - 8.1.2.A.1 Identify the basic features of a digital device and explain its purpose
  - 8.1.2.A.4 Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
- B. Creativity and Innovation: Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.
- C. Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
- D. Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
  - 8.1.2.D.1 Develop an understanding of ownership of print and nonprint information.
  - 8.1.2.E.1 Use digital tools and online resources to explore a problem or issue.

21st Century Themes/Career Readiness:
- CRP1. Act as a responsible and contributing citizen and employee.

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- CRP2. Apply appropriate academic and technical skills.
- CRP9. Model integrity, ethical leadership and effective management.
- CRP12. Work productively in teams while using cultural global competence.

21st Century Life and Career Standards:
- 9.2.4.A.1 Identify reasons why people work, different types of work, and how work can help a person achieve personal and professional goals.
- 9.2.4.A.2 Identify various life roles and civic and work-related activities in the school, home, and community.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Evidence of Student Learning

Formative Tasks:
- Solve and Share
- Exit Slips
- Math Center Activities
- Math Games
- What Shape Am I? Game
- Create the Shape Activity
- Daily Review
- Quick Check Quizzes
- Draw and Show

Alternative Assessments:
- Verbal Checks
- Checklists
- Rubrics
- Seesaw

Summative Assessments:
- Topic Tests
- Quick Check Quizzes
- Topic Performance Assessment

Benchmark Assessments:
- Pearson Benchmark Assessments
- Beginning of Year SGO
- Mid-Year SGO
- End of Year SGO

Knowledge & Skills

Enduring Understandings:
- Measure lengths indirectly and by iterating length units.
- Tell and write time.
- Reason with shapes and their attributes.
- Represent and solve problems involving addition and subtraction.
- Add and subtract within 20.
- Extend the counting sequence.

Essential Questions:
- What are ways to compare the lengths of three objects?
- What are ways to measure how long an object is?
- What are different ways to tell time to the half hour?
- How can you define shapes?
- How can you compose shapes given specific attributes?
- What strategies can you use to solve addition and subtraction word problems within 20?

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	- What strategies can you use to Add or subtract whole numbers within 20? - How can you use what you already know about reading and writing numerals to read and write numerals to 120?

Core Instructional & Supplemental Materials	
Suggested Activities/Resources: ● Reflexmath.com ● HappyNumbers.com ● Paper Chain Measurement ● Measure a Friend ● Funbrain.com ● Smarty Ants ● Seesaw ● SMARTboard applications ● Online games ● Grades K-6: Envision 2.0, 2016 ● Envisions online resources	**Varied Levels of Text:** ● *Building With Shapes* Mooney, Carla C ● *The Philharmonic Gets Dressed* Kuskin, Karla ● *Sir Cumference And All The King's Tens* ● *Grandma's Button Box* Aber, Linda Williams K ● *The Great Graph Contest* Leedy, Loreen M ● *The Action Of Subtraction* Cleary, Brian P. N ● *All About Math Symbols (=, +, -, <, >, Degrees, $, Cents)* Allen, Nancy G ● *Fair Bear Share* Murphy, Stuart J. ● *Herding A Hundred: Counting The Sheep* Loughran, Donna N ● *On The Playground: How Do You Build Place Value?* Loughran, Donna N ● *The Philharmonic Gets Dressed* Kuskin, Karla M

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Unit 5: Reasons with Shapes and Their Attributes	Duration: 25 Days

Standards/Learning Targets

New Jersey Student Learning Standards:
- 1.G.A.2: Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.
- 1.G.A.3: Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.
- 1.NBT.C.4: Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models (e.g., base ten blocks) or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
- **1.OA.A.1:** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- **1. OA.C.6:** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 – 4 = 13 – 3 – 1 = 10 – 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 – 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).
- **1.MD.C.4:** Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Standards for Mathematical Practice:
- MP.1 Make sense of problems and persevere in solving them.
- MP.3 Construct viable arguments and critique the reasoning of others.
- MP.5 Use appropriate tools strategically.
- MP.6 Attend to precision.
- MP.7 Look for and make use of structure.

Interdisciplinary Connections:

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Reading:

- **RI.1.10** With prompting and support, read informational texts at grade level text complexity or above.
- **RL.1.7** Use illustrations and details in a story to describe its characters, setting, or events.

Speaking and Listening:

- **SL.1.1** Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.

Writing:

- **W.1.5** With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers and self-reflection, and add details to strengthen writing and ideas as needed.

Technology Standards:
- 8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
- A. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations
    - 8.1.2.A.1 Identify the basic features of a digital device and explain its purpose
    - 8.1.2.A.4 Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
- B. Creativity and Innovation: Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.

21st Century Themes/Career Readiness:
- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

21st Century Life and Career Standards:
- 9.2.4.A.1 Identify reasons why people work, different types of work, and how work can help a person achieve personal and professional goals.
- 9.2.4.A.2 Identify various life roles and civic and work-related activities in the school, home, and community.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Evidence of Student Learning

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Formative Tasks:	Alternative Assessments:
● Solve and Share ● Exit Slips ● Math Center Activities ● Math Games ● Create the Shape Activity ● Daily Review ● Quick Check Quizzes ● Draw and Show	● Verbal Checks ● Checklists ● Rubrics ● Seesaw
Summative Assessments: ● Topic Tests ● Quick Check Quizzes ● Topic Performance Assessment	**Benchmark Assessments:** ● Pearson Benchmark Assessments ● Beginning of Year SGO ● Mid-Year SGO ● End of Year SGO

Knowledge & Skills

Enduring Understandings:	Essential Questions:
● Represent and interpret data ● Reason with shapes and their attributes. ● Represent and solve problems involving addition and subtraction. ● Add and subtract within 20. ● Extend the counting sequence.	● How do you draw two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles and quarter circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape? ● What are the ways to partition circles and rectangles into two or four equal shares, describing the shares using halves, fourths, and, quarters, and use the phrases half of, fourth of, and quarter of.? ● How do you describe the whole circle (or rectangle) partitioned into two or four equal shares as "two of", or "four of" the shares? ● What are the ways to add within 100, including adding a two-digit and a one-digit number, and adding a two-digit number and a multiple of 10; using concrete models, or drawings and strategies based on place value, properties of operations and/or the relationship between addition and subtraction; and relate the strategy to a written method and explain the

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	reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten?
	● When do we use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem?
	● What are the different ways to add and subtract within 20 (fluently within 10). Use strategies such as: counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 - 4 = 13 - 3 - 1 = 10 - 1 = 9); relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 - 8 = 4); and creating equivalent sums (e.g., adding 6 + 7 by creating the known equivalents 6 + 6 + 1 = 12 + 1 = 13)?
	● What are the ways to organize, represent, and interpret, data with up to three categories, and compare the number counts of data points among the categories, e.g., equal to, more than, or less than another category.?

Core Instructional & Supplemental Materials

Suggested Activities/Resources:	Varied Levels of Text:
● http://www.apples4theteacher.com/math.html#geometry games ● http://www.learningtoday.com/corporate/default.asp Interactive 2D activities ● ReflexMath.com ● Happynumbers.com ● Shape Twister Game ● Smarty Ants ● SMARTboard applications	● *Building With Shapes* Mooney, Carla C ● *The Philharmonic Gets Dressed* Kuskin, Karla ● *Sir Cumference And All The King's Tens* ● *Grandma's Button Box* Aber, Linda Williams K ● *The Great Graph Contest* Leedy, Loreen M

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● Online games ● Grades K-6: Envision 2.0, 2016 ● Envisions online resources	● *The Action Of Subtraction* Cleary, Brian P. N ● *All About Math Symbols (=, +, -, <, >, Degrees, $, Cents)* Allen, Nancy G ● *Fair Bear Share* Murphy, Stuart J. ● *Herding A Hundred: Counting The Sheep* Loughran, Donna N ● *On The Playground: How Do You Build Place Value?* Loughran, Donna N ● *The Philharmonic Gets Dressed* Kuskin, Karla M

Modifications/Accommodations

English Language Learners:
- Provide clear and specific directions

- Model directions and provide gestures to increase understanding

- Simplify written and verbal instructions

- Pre-teach as often as possible- share videos, articles, vocabulary etc. with ELL students prior to use in class

- Allow extra time

- Test key concepts and main ideas

- Simplify instructions

- Give students objective tests: matching, multiple choice, etc.

- Provide manipulatives

- Use alternative assessments such as physical demonstration and pictorial products

- Provide shorter assessments

- Grade content vs. mechanics

- Read assessments aloud

- Allow open-book or open-note tests

Special Education/504 Plans/Students with Disabilities:
- Follow specific students accommodations and modifications as listed in individual student IEP or 504 plan

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- Differentiate tests to meet the needs of students
- Shorten tests and give in multiple sessions if needed
- Reteach/Review before giving assessments
- Read assessment directions for each section to student(s)
- Allow the use of tools such as a computer or iPad
- Allow the use of manipulatives such as counters during testing
- Highlight key parts of equations or word problems for student(s)
- Allow verbal answers
- Print tests with larger font
- Allow for extra time if needed/necessary

Students at Risk of Failure:
- Make sure children feel welcome and comfortable while being discrete
- Provide structure and adhere to a consistent daily routine with clear and concise rules
- Allow students to complete assignments in school
- Use study carrels and other independent spaces as "private offices" for students.
- Provide a quiet area for one-to-one instruction with the teacher, a teacher assistant or a peer helper.

Economically Disadvantaged:
- Allow students to finish assignments independently, or give them the opportunity to complete tasks at their own pace.
- Initiating an interactive journal with the parent about what's happening at school and at home could help with teacher–parent dialogue.
- Providing needed academic resources (paper, pencils, computer time)

Culturally Diverse:
- Establish a positive connection with parents
- Provide positive praise to increase motivation
- Provide social/emotional support
- Support students in developing a positive racial identity