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Grade 1 Scope and Sequence for Math

	Math	Number of Instructional Days
September 9th to September 20th *(10 Instructional Days)*	**Chapter 1: Numbers to 10 (Unit 2:Numbers and Operations in Base Ten)**	**10**
September 23rd to October 3rd *(8 Instructional Days)*	**Chapter 2: Number Bonds (Unit 1: Operations and Algebraic Thinking)**	**8**
October 4th to October 21st *(10 Instructional Days)*	**Chapter 3: Addition Facts to 10 (Unit 1: Operations and Algebraic Thinking)**	**10**
October 22nd to November 6th *(13 Instructional Days)*	**Chapter 4: Subtraction Facts to 10 (Unit 1: Operations and Algebraic Thinking)**	**13**
November 11th to November 22nd *(9 Instructional Days)*	**Chapter 5: Shapes & Patterns (Unit 4: Geometry)**	**9**
December 2nd to December 20th *(14 Instructional Days)*	**Chapter 7: Numbers to 20 (Unit 2:Numbers and Operations in Base Ten)**	**14**
January 2nd to January 24th *(16 Instructional Days)*	**Chapter 8: Addition & Subtraction Facts to 20 (Unit 1: Operations and Algebraic Thinking)**	**16**
January 27th to February 6th *(9 Instructional Days)*	**Chapter 9: Length (Unit 3: Measurement and Data)**	**9**
February 7th to February 21st *(8 Instructional Days)*	**Chapter 11: Picture Graphs & Bar Graphs (Unit 3: Measurement and Data)**	**8**
February 24th to March 4th *(9 Instructional Days)*	**Chapter 12: Numbers to 40 (Unit 2:Numbers and Operations in Base Ten)**	**9**
March 9th to April 1st *(18 Instructional Days)*	**Chapter 13: Addition & Subtraction to 40 (Unit 1: Operations and Algebraic Thinking)**	**18**
April 2nd to April 20th *(7 Instructional Days)*	**Chapter 14: Mental Math Strategies (Unit 1: Operations and Algebraic Thinking)**	**7**
April 21st to April 24th *(4 Instructional Days)*	**Chapter 15: Calendar & Time (Unit 3: Measurement and Data)**	**4**
April 27th to May 12th *(12 Instructional Days)*	**Chapter 16: Numbers to 120 (Unit 2:Numbers and Operations in Base Ten)**	**12**
May 13th to May 29th *(12 Instructional Days)*	**Chapter 17: Addition & Subtraction to 100 (Unit 1: Operations and Algebraic Thinking)**	**12**
June 3rd to June 12th *(8 Instructional Days)*	**Chapter 19: Money (Unit 3: Measurement and Data)**	**8**

Math	Grade: 1st

Unit 1: Operations and Algebraic Thinking

In the Operations and Algebraic Thinking unit the students will be able to: represent and solve problems involving addition and subtraction; understand and apply properties of operations and the relationships between addition and subtraction; add and subtract within 20; and work with addition and subtraction equations.

The Progression in Operations and Algebraic Thinking deals with the basic operations—the kinds of quantitative relationships they model and consequently the kinds of problems they can be used to solve as well as their mathematical properties and relationships. Although most of the standards organized under the OA heading involve whole numbers, the importance of the Progression is much more general because it describes concepts, properties, and representations that extend to other number systems, to measures, and to algebra.

The generality of the concepts involved in Operations and Algebraic Thinking means that students' work in this area should be designed to help them extend arithmetic beyond whole numbers and understand and apply expressions and equations in later grades.
Addition and subtraction are the first operations studied. Initially, the meaning of addition is separate from the meaning of subtraction, and students build relationships between addition and subtraction over time. Subtraction comes to be understood as reversing the actions involved in addition and as finding an unknown addend. Likewise, the meaning of multiplication is initially separate from the meaning of division, and students gradually perceive relationships between division and multiplication analogous to those between addition and subtraction, understanding division as reversing the actions involved in multiplication and finding an unknown product.
Progressions for the New Jersey Student Learning Standards in Mathematics, The New Jersey Student Learning Standards Writing Team, May 2011

NJ 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, drawings, 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.B.3 Apply properties of operations as strategies to add and subtract.[2] *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.*
1.OA.C.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
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.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 three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = _ - 3, 6 + 6 = _.*

Enduring Understandings/Goals	Essential Questions
• Addition involves adding to and putting together. • Subtraction involves taking from, taking apart, and comparing.	• How can one find the total of parts? • How can one find the missing part of a whole? • What is the relationship between addition and subtraction?

• Missing numbers in a math sentence can be found using addition and subtraction. • A symbol can represent an unknown. • Objects, drawings, and equations can be used to solve problems • Properties of operations are used as strategies for solving addition and subtraction problems. • Knowing how addition and subtraction are related helps us to solve math problems. • There are multiple strategies to add and subtract. • Counting is related to addition and subtraction. • How many or how much there is of something increases with addition and decreases with subtraction. • The equal sign represents two sides that are balanced and have equivalent expressions on each side. • An equation is true if the representation on the left side of the equal sign is equivalent to the representation on the right side of the equal sign; otherwise it is false. • If an unknown number must be found, it must make the equation true.	• How can properties of operations help to solve addition and subtraction problems? • How is counting related to addition and subtraction? • How can a problem be simplified? • What strategies are available to determine how much or how many we have? • How can one determine if an equation is true or false? • When the unknown number is found for an equation, how can one tell if it is correct?

Chapters	**Lessons**
Chapter 2: Number Bonds	Lesson 1: Making Number Bonds
Chapter 3: Addition Facts to 10	Lesson 1: Ways to Add Lesson 2: Making Addition Stories Lesson 3: Real-World Problems: Addition
Chapter 4: Subtraction Facts to 10	Lesson 1: Ways to Subtract Lesson 2: Making Subtraction Stories Lesson 3: Real-World Problems: Subtraction Lesson 4: Making Fact Families
Chapter 8: Addition & Subtraction Facts to 20	Lesson 1: Ways to Add Lesson 2: Ways to Subtract Lesson 3: Real-World Problems: Addition and Subtraction Facts
Chapter 13: Addition &	Lesson 1: Addition without Regrouping

Subtraction to 40	Lesson 2: Addition with Regrouping Lesson 3: Subtraction without Regrouping Lesson 4: Subtraction with Regrouping Lesson 5: Adding Three Numbers Lesson 6: Real-World Problems: Addition and Subtraction
Chapter 14: Mental Math Strategies	Lesson 1: Mental Addition Lesson 2: Mental Subtraction
Chapter 17: Addition & Subtraction to 100	Lesson 1: Addition without Regrouping Lesson 2: Addition with Regrouping Lesson 3: Subtraction without Regrouping Lesson 4: Subtraction with Regrouping

Skills (Students will be able to…)

- The meaning of addition.
- The meaning of subtraction.
- There are multiple interpretations of addition and subtraction.
- The properties of operations (but will not use formal terms for these properties.)
- Numbers that make 10 will help solve problems.
- Numbers can be decomposed into simpler terms.
- Counting on strategies.
- "Making 10" strategies.
- "Decomposing 10" strategies.
- The inverse relationship between addition and subtraction.
- Forming equivalent but easier or known sums can find solutions.
- An equation is true only if the left and right sides of an equal sign have equivalent expressions.
- That an unknown represents a number that will make an equation true.

Evidence of Learning (Assessments)	Accommodations and Modifications
Formative Assessments: • Student Book • Math Talk	**Special Education** • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)

- Cumulative Assessments
- Interview Assessments

Summative Assessments:

- First Grade Math in Focus Chapter Review/Test
- Cumulative Reviews
- Mid-Year Reviews
- End-of–Year Reviews

Benchmark Assessments:

- Initial LinkIt Benchmark: September
- Mid-year LinkIt Benchmark: December
- End of year LinkIt Benchmark: Last week in April
- Math in Focus Beginning of the Year, Mid-Year and End-of-Year Math Assessments

Alternative Assessments:

- Kindergarten Math in Focus Interview Assessments
- Kindergarten Math in Focus Performance Based Assessments
- G & T Assessments:Sages-2 Screening Assessment for Gifted Elementary: Mathematics/Science Language Arts/Social Studies
- Reasoning
- Dyslexia Screener
- PRIM checklist
- Computational Skills Grade Placement Test

- *Subgroup Accommodations and Modifications*
- *Curricular Modifications and Guidance for Students Educated in Special Class Settings*

Differentiation:

- *Preview content and concepts*
- *Behavior management plan*
- *Highlight text*
- *Small group setting*

High-Prep Differentiation:

- *Alternative formative and summative assessments*
- *Guided Reading*
- *Personal agendas*
- *Project-based learning*
- *Problem-based learning*
- *Stations/centers*
- *Tiered activities/assignments*
- *Varying organizers for instructions*

Low-Prep Differentiation:

- *Clubbing activities*
- *Exploration by interest*
- *Flexible groupings*

English Language Learners

- Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
- Unit 1: Curriculum for ELL
- ***Subgroup Accommodations and Modifications***
- Multi-language glossary
- Pupil edition in Spanish
- Vocabulary flash cards

Students at Risk for Failure

- Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
- ***Subgroup Accommodations and Modifications***

Gifted and Talented

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Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
Subgroup Accommodations and Modifications
Math in Focus or Big Ideas G & T Activities

Students with 504 Plans

Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
Subgroup Accommodations and Modifications

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<tr><td>Core Instructional and Supplemental Materials Professional Resources:</td><td>Core Instructional, Supplemental, Instructional, and Intervention Resources</td></tr>
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Core Professional Resources:

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First Grade Math in Focus Manipulatives
Math in Focus Reteach 1A/1B
Math in Focus Enrichment 1A/1B
Math in Focus Extra Practice 1A/1B
Math in Focus Problem of the Lesson
Math in Focus Assessments 1

Supplemental Professional Resources:

Math in Focus Curriculum
Denis Sheeran Training Resources
http://www.corestandards.org/Math/Practice/
http://www.madisonpublicschools.org/page/231

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Core Instructional Resources:

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Open Middle - 1st Grade: Operations & Algebraic Thinking
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- Visual Patterns
- Esti-Mysteries
- 51 Esti-Mysteries
- Splat Math

Intervention Resources:

- Math in Focus Extra Practice 1A/1B
- Math in Focus Enrichment 1A/1B
- Math in Focus Reteach 1A/1B
- Math in Focus Problem of the Lesson
- iReady
- Linkit!
- IXL
- Big Ideas
- Classroom Manipulatives
- Online Manipulatives
- Content from previous grade levels
- Touch Math

Interdisciplinary Connections

- Correlates to the Economics and Citizenship units in Social Studies.

8.1 Educational Technology

8.1.2.A.1 Identify the basic features of a digital device and explain its purpose.
8.1.2.C.1 Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media.
8.1.2.E.2 Use digital tools and online resources to explore a problem or issue.
8.1.2.F.1 Use geographic mapping tools to plan and solve problems.

8.2 Technology Education, Engineering, Design, and Computational Thinking - Programming

8.2.2.A.1 Describe how designed products and systems are useful at school, home, and work.
8.2.2.C.1 Brainstorm ideas on how to solve a problem or design a product.
8.2.2.D.1 Collaborate and apply a design process to solve a simple problem from everyday experiences.
8.2.2.D.5 Identify how using a tool aids in reducing work.
8.2.2.E.1 List and demonstrate the steps to an everyday task.

Integration of Technology through NJSLS

- Listen to books on CDs, tapes, videos or podcasts if available.
- Listen to books on websites (pbskids.org/lions/index.html, storylineonline.net, storyit.com, Elementary Connections Page)
- Use document camera or overhead projector for shared reading of texts.
- Use virtual manipulatives
- Use Think Central
- Use IXL.com

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Integration of 21st Century Themes	Media Literacy Integration
Learning and Innovation Skills: **Critical Thinking & Problem Solving** • Reason Effectively • Use Systems Thinking • Making Judgements and Decisions • Solve Problems **Communication and Collaboration** • Communicate Clearly **Life and Career Skills** **Initiative and Self Direction** • Manage Goals and Time • Work Independently • Be Self-directed Learners	• Have students practice skills using IXL • Students create problems on the tablets and share them with classmates • Kahn Academy • Brain Pop
Career Education	**Global Perspectives**
9.1 Personal Finance Literacy 9.1.4.A.1 Explain the difference between a career and a job and identify various jobs in the community and the related earnings. 9.1.4.A.2 Identify potential sources of income. 9.1.4.B.5 Identify ways to earn and save. **9.2 Career Awareness, Exploration, and Preparation** 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.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.	• National Hispanic-Latino Month • National Disability Employment Awareness Month • International Dot Day (September 16) • Week of Respect • Red Ribbon Week • National Italian American Heritage Month • National American Indian Heritage Month • National Women's History Month • National Irish-American Heritage Month • Asian Pacific American Heritage Month • Older Americans' Month • Jewish American Heritage Month

Math	Grade: 1st

Unit 2: Numbers and Operations in Base Ten

In the Number and Operations in Base Ten unit the students will be able to: extend the counting sequence; understand place value; and use place value understanding and properties of operations to add and subtract.

Students' work in the base-ten system is intertwined with their work on counting and cardinality, and with the meanings and properties of addition, subtraction, multiplication, and division. Work in the base-ten system relies on these meanings and properties, but also contributes to deepening students' understanding of them.

Progressions for the New Jersey Student Learning Standards in Mathematics, The New Jersey Student Learning Standards Writing Team, April 2012

NJ 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.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:
1.NBT.B.2a 10 can be thought of as a bundle of ten ones — called a "ten."
1.NBT.B.2b The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones
1.NBT.B.2c 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.
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.

Enduring Understandings/Goals	**Essential Questions**
• Students will understand that... • How does where the digits are located affect how one reads the number? • How do counting patterns help one to count? • Why is place value important? • How does place value help one find the answers to addition and subtraction problems? •	• Counting involves patterns. • The location of digits in a number determines the value of the number. • To compare two numbers, one must compare the digits in each place, starting with the tens place. • Concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction can help one solve problems. • When adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. • When subtracting multiples of 10 from multiples of 10, one subtracts tens from tens and knows that 0 remains in the ones place.

Chapters	**Lessons**
Chapter 1: Numbers to 10	Lesson 1: Counting to 10 Lesson 2: Comparing Numbers Lesson 3: Making Number Patterns
Chapter 7: Numbers to 20	Lesson 1: Counting to 20 Lesson 2: Place Value Lesson 3: Comparing Numbers Lesson 4: Making Patterns and Ordering Numbers
Chapter 12: Numbers to 40	Lesson 1: Counting to 40

	Lesson 2: Place Value Lesson 3: Comparing, Ordering, and Patterns
Chapter 16: Numbers to 120	Lesson 1: Counting to 120 Lesson 2: Place Value Lesson 3: Comparing, Ordering, and Patterns
Skills (Students will be able to...)	
• Counting patterns. • How to read a number in the hundreds, tens, and ones place (for example, in 88 the 8 in the tens place is read as eighty whereas the 8 in the ones place is read as eight.) • The representation of 1–9 as ones; 11–19 as a composition of one ten plus ones. • The two digits in a two-digit number represent the amount of tens and ones. • 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). • Properties of operations to add and subtract. • The values of digits in a two-digit number.	

Evidence of Learning (Assessments)	Accommodations and Modifications
Formative Assessments: • Student Book • Math Talk • Cumulative Assessments • Interview Assessments **Summative Assessments:** • First Grade Math in Focus Chapter Review/Test • Cumulative Reviews • Mid-Year Reviews • End-of–Year Reviews **Benchmark Assessments:**	**Special Education** • Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners) • *Subgroup Accommodations and Modifications* • *Curricular Modifications and Guidance for Students Educated in Special Class Settings* ***Differentiation:*** • *Preview content and concepts* • *Behavior management plan* • *Highlight text* • *Small group setting* ***High-Prep Differentiation:*** • *Alternative formative and summative assessments* • *Guided Reading* • *Personal agendas* • *Project-based learning* • *Problem-based learning*

- Initial LinkIt Benchmark: September
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- Reasoning
- Dyslexia Screener
- PRIM checklist
- Computational Skills Grade Placement Test

- *Stations/centers*
- *Tiered activities/assignments*
- *Varying organizers for instructions*

Low-Prep Differentiation:

- *Clubbing activities*
- *Exploration by interest*
- *Flexible groupings*

English Language Learners

- Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
- Unit 1: Curriculum for ELL
- ***Subgroup Accommodations and Modifications***
- Multi-language glossary
- Pupil edition in Spanish
- Vocabulary flash cards

Students at Risk for Failure

- Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
- ***Subgroup Accommodations and Modifications***

Gifted and Talented

- Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
- ***Subgroup Accommodations and Modifications***
- *Math in Focus or Big Ideas G & T Activities*

Students with 504 Plans

- Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
- *Subgroup Accommodations and Modifications*

Core Instructional and Supplemental Materials Professional Resources:	Core Instructional, Supplemental, Instructional, and Intervention Resources

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Core Professional Resources:

- Math in Focus Teacher's Edition, First Grade
- First Grade Math in Focus Manipulatives
- Math in Focus Reteach 1A/1B
- Math in Focus Enrichment 1A/1B
- Math in Focus Extra Practice 1A/1B
- Math in Focus Problem of the Lesson
- Math in Focus Assessments 1

Supplemental Professional Resources:

- *Math in Focus Curriculum*
- *Denis Sheeran Training Resources*
- http://www.corestandards.org/Math/Practice/
- http://www.madisonpublicschools.org/page/231

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- Math in Focus Workbook 1A/1B
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- Math in Focus Assessments 1

Supplemental Resources:

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- Math Centers
- 3 Act Lessons
- Robert Kaplinsky Lessons
- Open Middle - 1st Grade: Numbers & Operations in Base Ten
- Which One Doesn't Belong?
- Solve Me Puzzles
- Estimation 180
- Same or Different
- Visual Patterns
- Esti-Mysteries
- 51 Esti-Mysteries
- Splat Math

Intervention Resources:

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- Math in Focus Enrichment 1A/1B
- Math in Focus Reteach 1A/1B
- Math in Focus Problem of the Lesson
- iReady
- Linkit!
- IXL
- Big Ideas
- Classroom Manipulatives
- Online Manipulatives

	• Content from previous grade levels • Touch Math
Interdisciplinary Connections	**Integration of Technology through NJSLS**
• Correlates to the Economics and Citizenship units in Social Studies. • Correlates to the Patterns of Change in the Sky unit in Science. **8.1 Educational Technology** 8.1.2.A.2 Create a document using a word processing application. 8.1.2.C.1 Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media. 8.1.2.E.2 Use digital tools and online resources to explore a problem or issue. **8.2 Technology Education, Engineering, Design, and Computational Thinking - Programming** 8.2.2.A.1 Define products produced as a result of technology or of nature. 8.2.2.B.1 Identify how technology impacts or improves life. 8.2.2.D.2 Discover how a product works by taking it apart, sketching how parts fit, and putting it back together. 8.2.2.D.5 Identify how using a tool aids in reducing work.	• Listen to books on CDs, tapes, videos or podcasts if available. • Listen to books on websites (pbskids.org/lions/index.html, storylineonline.net, storyit.com, Elementary Connections Page) • Use document camera or overhead projector for shared reading of texts. • Use virtual manipulatives • Use Think Central • Use IXL.com
Integration of 21st Century Themes	**Media Literacy Integration**
Learning and Innovation Skills: **Critical Thinking & Problem Solving** • Reason Effectively • Use Systems Thinking • Making Judgements and Decisions • Solve Problems **Communication and Collaboration** • Communicate Clearly **Life and Career Skills** **Initiative and Self Direction** • Manage Goals and Time • Work Independently • Be Self-directed Learners	• Have students practice skills using IXL • Students create problems on the tablets and share them with classmates • Kahn Academy • Brain Pop
Career Education	**Global Perspectives**

9.1 Personal Finance Literacy 9.1.4.A.1 Explain the difference between a career and a job and identify various jobs in the community and the related earnings. 9.1.4.A.2 Identify potential sources of income. 9.1.4.B.2 Identify age-appropriate financial goals. 9.1.4.D.1 Determine various ways to save. **9.2 Career Awareness, Exploration, and Preparation** 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay to foundation for future academic and career success.	• National Hispanic-Latino Month • National Disability Employment Awareness Month • International Dot Day (September 16) • Week of Respect • Black History Month • Kindness Month • National Women's History Month • National Irish-American Heritage Month • Asian Pacific American Heritage Month • Older Americans' Month • Jewish American Heritage Month

Math	**Grade: 1st**

Unit 3: Measurement and Data

In the Measurement and Data unit the students will be able to: measure lengths indirectly and iterating length units; tell and write time; and represent and interpret data.

Geometric measurement connects the two most critical domains of early mathematics, geometry and number, with each providing conceptual support to the other. Measurement is central to mathematics, to other areas of mathematics (e.g., laying a sensory and conceptual foundation for arithmetic with fractions), to other subject matter domains, especially science, and to activities in everyday life. For these reasons, measurement is a core component of the mathematics curriculum.

Progressions for the New Jersey Student Learning Standards in Mathematics, The New Jersey Student Learning Standards Writing Team, June 2012

NJ 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.B.3 Tell and write time in hours and half-hours using analog and digital clocks.
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.

Enduring Understandings/Goals	**Essential Questions**
Students will understand that... • Lengths of objects can be compared to lengths of other objects. • Measurement is an iteration of same-size units. • When time passes, the hour hand and the minute hand move at different rates. • There are many ways to analyze data. • Different coins have unique values. • The relative sizes of the coins are not related to the relative values of the coins (i.e., a penny is larger than a dime but is not worth more than a dime.) • Some coins can be exchanged for other coins, e.g., 5 pennies can be exchanged for 1 nickel. • The value of some coins and bills can be represented by a combination of other coins. • Money amounts can be counted and compared. • Coins can be identified by their color, size, and edge.	• How do we measure the length of an object? • How do we compare the lengths of two objects? • How do the positions of the hands on an analog clock indicate the time? • How do the numbers on a digital clock indicate the time? • How can representing data help us to interpret it and draw conclusions? • Why do we need money? • How do we count money?

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Chapters	Lessons
Chapter 9: Length	Lesson 1: Comparing Two Things Lesson 2: Comparing More Than Two Things Lesson 3: Using a Start Line Lesson 4: Measuring Things Lesson 5: Finding Length in Units
Chapter 11: Picture Graphs & Bar Graphs	Lesson 1: Simple Picture Graphs Lesson 2: More Picture Graphs Lesson 3: Tally Charts and Bar Graphs
Chapter 15: Calendar & Time	Lesson 1: Using a Calendar Lesson 2: Telling Time to the Hour Lesson 3: Telling Time to the Half Hour
Chapter 19: Money	Lesson 1: Penny, Nickel, and Dime Lesson 2: Quarter Lesson 3: Counting Money Lesson 4: Adding and Subtracting Money

Skills (Students will be able to...)

- The units used to measure an object should not overlap.
- The units used to measure an object should not have gaps between them.
- The length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.
- On an analog clock, the difference between the hour hand and the minute hand.
- On an analog clock, on the hour, the hour hand is pointing exactly to the number that represents the hour; on the half-hour, the hour hand is pointing exactly halfway between two numbers.
- On a digital clock, the digits to the left of the colon represent the hour and the digits to the right of the colon represent the minutes.
- The total number of data points will be represented in two or more categories.
- Pennies are copper and nickels, dimes, and quarters are silver.
- A nickel is bigger than a dime but smaller than a quarter.
- Pennies and nickels have a smooth edge while dimes and quarters have an edge with ridges.

Evidence of Learning (Assessments)	Accommodations and Modifications
Formative Assessments:	**Special Education**

- Student Book
- Math Talk
- Cumulative Assessments
- Interview Assessments

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- Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
- *Subgroup Accommodations and Modifications*
- *Curricular Modifications and Guidance for Students Educated in Special Class Settings*

Differentiation:

- *Preview content and concepts*
- *Behavior management plan*
- *Highlight text*
- *Small group setting*

High-Prep Differentiation:

- *Alternative formative and summative assessments*
- *Guided Reading*
- *Personal agendas*
- *Project-based learning*
- *Problem-based learning*
- *Stations/centers*
- *Tiered activities/assignments*
- *Varying organizers for instructions*

Low-Prep Differentiation:

- *Clubbing activities*
- *Exploration by interest*
- *Flexible groupings*

English Language Learners

- Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
- Unit 1: Curriculum for ELL
- ***Subgroup Accommodations and Modifications***
- Multi-language glossary
- Pupil edition in Spanish
- Vocabulary flash cards

Students at Risk for Failure

- Differentiation for All Students (Special Needs, ESL, Gifted Learners, & Mainstream Learners)
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Gifted and Talented

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- *Math in Focus or Big Ideas G & T Activities*

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- Big Ideas
- Classroom Manipulatives
- Online Manipulatives
- Content from previous grade levels
- Touch Math

Interdisciplinary Connections

- Correlates to the Geography and Citizenship units in Social Studies.
- Correlates to the Characteristics of Living Things unit in Science.

8.1 Educational Technology

8.1.2.A.7 Enter information into a database or spreadsheet and filter the information.
8.1.2.C.1 Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media.
8.1.2.E.2 Use digital tools and online resources to explore a problem or issue.
8.1.2.F.1 Use geographic mapping tools to plan and solve problems.

8.2 Technology Education, Engineering, Design, and Computational Thinking - Programming

8.2.2.A.3 Identify a system and the components that work together to accomplish its purpose.
8.2.2.B.3 Identify products or systems that are designed to meet human needs.
8.2.2.C.6 Investigate a product that has stopped working and brainstorm ideas to correct the problem.
8.2.2.D.1 Collaborate and apply a design process to solve a simple problem from everyday experiences.
8.2.2.D.4 Identify the resources needed to create technological products or systems.
8.2.2.E.2 Demonstrate and understanding of how a computer takes input through a series of written commands and then interprets and displays information as output.

Integration of Technology through NJSLS

- Listen to books on CDs, tapes, videos or podcasts if available.
- Listen to books on websites (pbskids.org/lions/index.html, storylineonline.net, storyit.com, Elementary Connections Page)
- Use document camera or overhead projector for shared reading of texts.
- Use virtual manipulatives
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- Use IXL.com

Table of Contents

Integration of 21st Century Themes	Media Literacy Integration
Learning and Innovation Skills: **Critical Thinking & Problem Solving** • Reason Effectively • Use Systems Thinking • Making Judgements and Decisions • Solve Problems **Communication and Collaboration** • Communicate Clearly **Life and Career Skills** **Initiative and Self Direction** • Manage Goals and Time • Work Independently • Be Self-directed Learners	• Have students practice skills using IXL • Students create problems on the tablets and share them with classmates • Kahn Academy • Brain Pop
Career Education	**Global Perspectives**
9.1 Personal Finance Literacy 9.1.4.A.3 Explain how income affects spending and take-home pay. 9.1.4.B.4 Identify common household expense categories and sources of income. 9.1.4.C.3 Compare and contrast credit cards and debit cards and the advantages and disadvantages of using each. 9.1.4.C.5 Determine personal responsibility related to borrow and lending. 9.1.4.E.2 Apply comparison shopping skills to purchasing decisions. 9.1.4.F.2 Explain the roles of philanthropy, volunteer service, and charitable contributions, and analyze their impact on community development and quality of living. **9.2 Career Awareness, Exploration, and Preparation** 9.2.4.A.3 Identify both traditional and nontraditional careers and relate information to personal likes and dislikes. 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.	• Black History Month • Kindness Month • Asian Pacific American Heritage Month • Older Americans' Month • Jewish American Heritage Month

Math	**Grade: 1st**
Unit 4: Geometry In the geometry unit the students will be able to reason with shapes and their attributes. Like core knowledge of numbers, core geometrical knowledge appears to be a universal capability of the human mind. Geometric and spatial thinking are important in	

and of themselves, because they connect mathematics with the physical world, and play an important role in modeling phenomena whose origins are not necessarily physical, for example, as networks or graphs. They are also important because they support the development of number and arithmetic concepts and skills. Thus, geometry is essential for all grade levels for many reasons: its mathematical content, its roles in physical sciences, engineering, and many other subjects, and its strong aesthetic connections.

Progressions for the New Jersey Student Learning Standards in Mathematics, The New Jersey Student Learning Standards Writing Team, June 2012

NJ Student Learning Standards

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.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.

Enduring Understandings/Goals	**Essential Questions**
Students will understand that... ● Attributes may or may not define a shape. ● New shapes can be made from two or more other shapes. ● Compositions must be within the same dimension. ● Shares of a whole must always be equal. ● Decomposing into more equal shares creates smaller shares.	● Why do we need to identify shapes? ● Why would we compose or decompose shapes?

Chapters	**Lessons**
Chapter 5: Shapes & Patterns	Lesson 1: Exploring Plane Shapes Lesson 2: Exploring Solid Shapes Lesson 3: Making Pictures and Models with Shapes Lesson 4: Seeing Shapes Around Us Lesson 5: Making Patterns with Plane Shapes Lesson 6: Making Patterns with Solid Shapes

Skills (Students will be able to...)

- Shapes are characterized by their defining attributes (number of sides, size of angles, etc.).
- Non-defining attributes (color, overall size, orientation, etc.) give additional information but do not characterize the shape.

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- Use document camera or overhead projector for shared reading of texts.
- Use virtual manipulatives
- Use Think Central
- Use IXL.com

8.2.2.A.5 Collaborate to design a solution to a problem affecting the community. 8.2.2.B.3 Identify products or systems that are designed to meet human needs. 8.2.2.C.2 Create a drawing of a product or device that communicates its function to peers and discuss 8.2.2.C.5 Describe how the parts of a common toy or tool interact and work as part of a system. 8.2.2.D.2 Discover how a product works by taking it apart, sketching how parts fit, and putting it back together. 8.2.2.E.1 List and demonstrate the steps to an everyday task.	
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