

ESSEX FELLS PUBLIC SCHOOL

CURRICULUM & INSTRUCTION

Mathematics

Grade: 1

ABSTRACT

In Grade 1, instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.

BOE Approved: 8/12/26

ESSEX FELLS PUBLIC SCHOOL

Grade 1 Mathematics

Unit of Study: (<i>Pacing Guide/Scope & Sequence - Specify time frame by days or weeks</i>)	Topic: - Represent and solve problems involving addition and subtraction. - Understand and apply properties of operations and the relationship between addition and subtraction. September-November (10 weeks)	Topic: - Add and subtract within 20 - Work with addition and subtraction equations. November-January (10 weeks)	Topic: - Counting and Number patterns to 120 - Place Value - Comparing and ordering numbers to 100 January-March (10 weeks)
STAGE 1: Desired Results			
Established Goals: Write out complete NJSLS: (<i>Content Specific Standards Only. Only use standards that are applicable to the unit.</i>)	NJSLS: 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.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	NJSLS: 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.2 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.	NJSLS: 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. 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

	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: 8. Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. For example,	1.OA.B.3: Apply properties of operations as strategies to add and subtract. 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.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 accuracy and efficiency 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: 8. Determine the unknown whole number in an addition or	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.
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	determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = - 3$, $6 + 6 =$	subtraction equation relating to three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = - 3$, $6 + 6 =$. 1.DL.A.1: 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.	
Interdisciplinary Connections: Write out complete NJSLS: (<i>Must have at least one standard from one of these areas but may have more</i>): • <i>ELA companion standards;</i> • <i>Standards for Mathematical Practice</i> • <i>Science;</i> • <i>Visual/Performing Arts)</i> - <i>Standard 1;</i> • <i>Comprehensive Health & PE - Standard 2;</i> • <i>Social Studies - Standard 6;</i> • <i>World Languages - Standard 7;</i>	ELA Companion RI.1.1 Ask and answer questions about key details in a text. Other Connections • Smore.com • “Pumpkin Math” • Introduce with How Many Seeds in a Pumpkin • Pumpkin Packet ○ Record estimate and actual: ■ Weight ■ Inches around ■ Number of Seeds ■ Sink or Float ■ Adjectives • 10 Fat Turkeys” ○ Record Complements of 10 on individual feathers ○ How many turkeys are on the fence? (6) ○ How many are off? (4)	ELA Companion RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g. who, what, where, when, why, how). Other Connections • “Seeing Double” • Read Two of Everything • Comprehension Questions ○ What was special about the pot that Mr. Haktak found? (everything he put in was doubled) ○ What happened when Mr. Haktak fell into the pot? ○ What happened when Mr. & Mrs. Haktak put 5 coins in? • After understanding is confirmed, write equations to show what happened in the text ($1+1=2$, $5+5=10$) • Introduce “doubling machine” and	ELA Companion RI.CR.1.1. Ask and answer questions about key details in an informational text (e.g. who, what, where, when, why, how). Other Connections • <i>Place Value</i> by David A. Adler • <i>Comparing and Ordering Numbers: "More or Less"</i> by Stuart J. Murphy • <i>A Fair Bear Share</i> by Stuart J. Murphy • <i>Even Steven and Odd Todd</i> by Kathryn Cristaldi • <i>Count by Tens</i> by Jerry Pallotta • <i>Leaping Lizards</i> by Stuart J. Murphy • <i>Reese’s pieces: Count by Fives</i> by Jerry Pallotta • Research the Arabic system • Number book counting

	○ What do you know about 6 and 4? (=10) ● Create “This turkey is a 10!” project with feathers and other copy patterns ● <i>Mission Addition and Subtraction Action</i> by Loreen Leedy ● <i>Elevator Magic</i> by Stuart J. Murphy ● <i>Domino Addition</i> by Lynette Long ● <i>Pigs to go Market</i> by Amy Axelrod ● <i>The Very Hungry Caterpillar</i> by Eric Carle ● Write math stories using Story Maker www.abcy.com/story_maker.htm or Book Creator (Free App) ● Cross-curricular lessons www.teaching.monster.com	model & play “Seeing Double” activity ● After students have rolled dice and held that number of items in the mirror to see it doubled, they can write one equation and create a drawing representation on the “Doubling Pot” activity sheet. ● The Action of Subtraction by Brian P. Cleary ● Wake Up City by Alvin Tresselt ● <i>A Fair Bear Share</i> by Stuart J. Murphy ● <i>One Hundred Ants</i> by Elinor Pinczes ● <i>Adding Alligators</i> by Betsy Franco ● <i>Cats Add Up</i> by Diane Ochiltree ● <i>Elevator Magic</i> by Stuart J. Murphy ● Write math stories using Story Maker ● Cross-curricular lessons	
Integration of Career Readiness, Life Literacies & Key Skills: Write out complete NJSLS: (Must have at least one standard from: ● 9.1 Personal Financial Literacy; or ● 9.2 Career Awareness, Exploration, Preparation & Training; or ● 9.4 Life Literacies &	Life Literacies & Key Skills 9.4.2.CI.1: Demonstrate openness to new ideas and perspectives. 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.GCA.1: Articulate the role of culture in everyday life by describing one’s own culture and comparing it to the cultures of other individuals.	Life Literacies & Key Skills 9.4.2.CI.1: Demonstrate openness to new ideas and perspectives. 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.GCA.1: Articulate the role of culture in everyday life by describing one’s own culture and comparing it to the cultures of other individuals.	Life Literacies & Key Skills 9.4.2.CI.1: Demonstrate openness to new ideas and perspectives. 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.GCA.1: Articulate the role of culture in everyday life by describing one’s own culture and comparing it to the cultures of other individuals.

<i>Key Skills)</i>			
Integration of Computer Science and Design Thinking: Write out complete NJSLS: <i>(Must have at least one standard from:</i> ● 8.1 Computer Science; or ● 8.2 Design Thinking)	Design Thinking 8.1.2.AP.4: Break down a task into a sequence of steps. 8.1.2.DA.2: Collect and present data, including climate change data, in various visual formats.	Design Thinking 8.1.2.AP.4: Break down a task into a sequence of steps. 8.1.2.DA.2: Collect and present data, including climate change data, in various visual formats.	Design Thinking 8.1.2.AP.4: Break down a task into a sequence of steps. 8.1.2.DA.2: Collect and present data, including climate change data, in various visual formats.
21st Century Life and Careers: Career Education: Write out complete NJSLS: <i>(Only include if a CTE curriculum</i> ● 9.3 Career and Technical Education)	N/A	N/A	N/A
Enduring Understandings: <i>(Follow UbD: What big ideas will students know?)</i>	● Addition and subtraction are processes in which groups are joined and separated. ● Addition and subtraction have an inverse relationship. ● Numbers have patterns and can be considered parts of a whole. ● The number 10 can be broken in parts of the whole	● Addition and subtraction have an inverse relationship. ● Numbers have patterns and can be considered parts of a whole. ● Data can be represented and interpreted in many different ways and organized into categories.	● Numbers can be represented as words, numerals, and with objects. ● Two-digit numbers represent tens and ones. ● Place value helps us to add and subtract tens and ones.
Essential Questions: <i>(Follow UbD best practices in the creation of questions)</i>	1. How can one find the total of parts? 2. How can one find the missing part of a whole? 3. Why are addition and subtraction important? 4. How can properties of operations	1. How does understanding and applying mathematical properties, develop better number sense? 2. Why does analyzing and organizing data to help solve real world problems?	1. How does understanding place value help us solve addition and subtraction problems 2. Does finding patterns in the number system extend our number sense and mental math ability?

	help to solve addition and subtraction problems?		
STAGE 2: Evidence			
Assessment & Evidence: <i>(By what criteria will performances of understanding be judged? Include:</i> 1. Formative, 2. Summative, 3. Alternative - Performance/Project) 4. Benchmark)	Formative Assessments • Student Participation • Teacher Observations • Textbook/Workbook Activities • Learning Centers • Journal Entries • quizzes Summative Assessments • Unit Assessments (may include but not limited to): Tests, Quizzes, Google Forms etc Alternative Assessments • Performance Tasks to solve real world problems • Projects • Exit Tickets • Problem based or concept based projects • Math journals Benchmark Assessments • Student Growth Assessments • IXL test • Aims Web	Formative Assessments • Student Participation • Teacher Observations • Textbook/Workbook Activities • Learning Centers • Journal Entries • quizzes Summative Assessments • Unit Assessments (may include but not limited to): Tests, Quizzes, Google Forms etc Alternative Assessments • Performance Tasks to solve real world problems • Projects • Exit Tickets • Problem based or concept based projects • Math journals Benchmark Assessments • Student Growth Assessments • IXL test • Aims Web	Formative Assessments • Student Participation • Teacher Observations • Textbook/Workbook Activities • Learning Centers • Journal Entries • quizzes Summative Assessments • Unit Assessments (may include but not limited to): Tests, Quizzes, Google Forms etc Alternative Assessments • Performance Tasks to solve real world problems • Projects • Exit Tickets • Problem based or concept based projects • Math journals Benchmark Assessments • Student Growth Assessments • IXL test • Aims Web
STAGE 3: Learning Plan			
Learning	• Add, or subtract using objects and	• Add, or subtract using objects and	• Count orally by ones up to 100.

Activities/Content: <i>(What is the core content of this unit? What performance tasks/activities will students do? What skills will students know? Include content that adheres to NJ Administrative Code and Statutes:</i> • <i>Amistad Law</i> • <i>Holocaust Law</i> • <i>LGBTQ/Disabilities Law)</i>	drawings, to solve word problems involving situations of adding to and putting together or taking apart. • Use addition and subtraction within 10 to solve problems, including word problems involving situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions. • Apply properties of operations (commutative property) as strategies to add or subtract within 10. • Add and subtract within 20, using the following strategies: ○ counting on; ○ making ten; ○ composing numbers; ○ decomposing numbers leading to a ten; ○ relationship between addition and subtraction, and ○ creating equivalent but easier or known sums. ○ fluently add or subtract whole numbers within 20. • Add and subtract whole numbers within 20 using various strategies: counting on, making ten, composing, decomposing, relationship between addition and subtraction, creating equivalent but easier or known sums, etc.	drawings, to solve word problems involving situations of adding to and putting together or taking apart. • Use objects and drawings to represent word problems that call for less than or equal to 20 • Solve addition word problems with three whole numbers with sums less than or equal to 20. • Add and subtract, within 20, using properties of operations as strategies. (Associative Property) • Apply properties of operations as strategies (Associative Property) to add or subtract within 20. • Use concrete models and drawings with a strategy based on place value to add a two-digit number and a one-digit number. • Connecting cubes and counters to represent and solve problems • Dominoes to represent and solve problems • Foam dice to represent addition problems practice and addition and subtraction facts using mental math to solve • Popsicles to represent addition and subtraction sentences • Magnetic numbers to represent addition & subtraction sentences • Number line to count on and back • Draw pictures to solve word problems • Math Poems Songs	• Count up to 100 beginning at any number less than 100. • Read and write numerals up to 100. • Represent a number of objects up to 100 with a written number. • Count orally by ones up to 120. • Count up to 120 beginning at any number less than 120. • Read and write numerals up to 120. • Represent a number of objects up to 120 with a written number. • Compose tens to make numbers up to 90. • Decompose numbers up to 90, into tens. • Identify the value of the number in the tens or ones place. • Use the meaning of tens and ones digits to compare 2 two-digit numbers using $>$, $=$, and $<$ symbols. • Use concrete models and drawings with a strategy based on place value to add a two-digit number and a one-digit number. • Use concrete models and drawings with properties of operations to add a two-digit number and a one-digit number. Diversity and Inclusion Law <u>(N.J.S.A. 18A:35-4.36a)</u> • Collaborate with your peers to
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	● Number line to count on and back ● Draw pictures to solve word problems ● Math songs ● Dice to represent addition practice Diversity and Inclusion Law (N.J.S.A. 18A:35-4.36a) ● Collaborate with peers to solve culturally responsive word problems ● Answer questions by using multiple perspectives and sources. Amistad Law (N.J.S.A. 18A:52-16A-88) ● Students will participate in mathematical activities that incorporate diverse names, cultures, and real-world contexts while recognizing the contributions of African Americans and other diverse individuals to society. Through collaborative problem-solving, students will develop respect, fairness, and appreciation for the experiences and perspectives of others. Holocaust Law (N.J.S.A. 18A:35-28) ● Through age-appropriate collaborative learning experiences, students will develop kindness, empathy, cooperation, and respect for others.	Diversity and Inclusion Law (N.J.S.A. 18A:35-4.36a) ● Collaborate with your peers to solve culturally responsive word problems ● Answer questions by using multiple and varying perspectives and sources. Amistad Law (N.J.S.A. 18A:52-16A-88) ● Students will participate in mathematical activities that incorporate diverse names, cultures, and real-world contexts while recognizing the contributions of African Americans and other diverse individuals to society. Through collaborative problem-solving, students will develop respect, fairness, and appreciation for the experiences and perspectives of others. Holocaust Law (N.J.S.A. 18A:35-28) ● Through age-appropriate collaborative learning experiences, students will develop kindness, empathy, cooperation, and respect for others. Mathematical activities will encourage fairness, sharing, responsible decision-making, and the understanding that every	solve culturally responsive word problems ● Answer questions by using multiple and varying perspectives and sources. Amistad Law (N.J.S.A. 18A:52-16A-88) ● Students will participate in mathematical activities that incorporate diverse names, cultures, and real-world contexts while recognizing the contributions of African Americans and other diverse individuals to society. Through collaborative problem-solving, students will develop respect, fairness, and appreciation for the experiences and perspectives of others. Holocaust Law (N.J.S.A. 18A:35-28) ● Through age-appropriate collaborative learning experiences, students will develop kindness, empathy, cooperation, and respect for others. Mathematical activities will encourage fairness, sharing, responsible decision-making, and the understanding that every individual deserves to be treated with dignity and respect.
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	Mathematical activities will encourage fairness, sharing, responsible decision-making, and the understanding that every individual deserves to be treated with dignity and respect.	individual deserves to be treated with dignity and respect.	
Resources: <i>(Include names of texts and all online resources)</i>	• HMH Into Math • IXL.com • Brainpopjr.com • Generationgenius.com • Illuminations Home - National Council of Teachers of Mathematics • Sharing Markers • Matching Game • 100 chart Game • Puzzle Maker • Khan Academy • Education.com • Mathstory	• HMH Into Math • IXL.com • Brainpopjr.com • Generationgenius.com • Illuminations Home - National Council of Teachers of Mathematics • Sharing Markers • Matching Game • 100 chart Game • Puzzle Maker • Khan Academy • Education.com • Mathstory	• HMH Into Math • IXL.com • Brainpopjr.com • Generationgenius.com • Khan academy • Stem.org • Homeschoolmath • Abcya • Internet4classrooms • smartfirstgraders • Interactivsites • Softschools
Differentiation: <i>(What type of differentiated instruction will be used for each of the following subgroups:</i> 1. <i>Special Education</i> 2. <i>English Language Learners (ELLs)</i> 3. <i>At Risk/BSI</i> 4. <i>Gifted & Talented/Advanced</i> 5. <i>504)</i>	Special Education • IEP-Individual Educations Plans • Exemplars of varied performance levels • Consultation with CST • Manipulatives • Provide access to a computer • Provide oral reminders and check students works • Guided note-taking • Study Guides • Modified homework • Differentiated pre-typed class notes and example problems	Special Education • IEP-Individual Educations Plans • Exemplars of varied performance levels • Consultation with CST • Manipulatives • Provide access to a computer • Provide oral reminders and check students works • Guided note-taking • Study Guides • Modified homework • Differentiated pre-typed class notes and example problems	Special Education • IEP-Individual Educations Plans • Exemplars of varied performance levels • Consultation with CST • Manipulatives • Provide access to a computer • Provide oral reminders and check students works • Guided note-taking • Study Guides • Modified homework • Differentiated pre-typed class notes and example problems

	● Use of the inclusion teacher to ● re-instruct in flexible small groups for the struggling learner ● Use of alternate assessments English Language Learners (ELLs) ● Dictionaries ● Mnemonic devices ● Visual aids and modeling ● Provide notes to students as needed in native language ● Cultural responsiveness ● Group students with others of different learning levels and abilities. ● Non-verbal assessments Students At-Risk (BSI) ● Interactive maps ● Jigsaw groups ● Graphic organizers ● Use of technology for class assignments and homework ● Provide opportunities for students to discuss material verbally and also periods of quiet reflection. Gifted and Talented (Advanced) Students: ● Project Based Learning ● Open-ended and informative writing ● Internet based responses ● Curriculum Compacting ● Open ended response	● Use of the inclusion teacher to ● re-instruct in flexible small groups for the struggling learner ● Use of alternate assessments English Language Learners (ELLs) ● Dictionaries ● Mnemonic devices ● Visual aids and modeling ● Provide notes to students as needed in native language ● Cultural responsiveness ● Group students with others of different learning levels and abilities. ● Non-verbal assessments Students At-Risk (BSI) ● Interactive maps ● Jigsaw groups ● Graphic organizers ● Use of technology for class assignments and homework ● Provide opportunities for students to discuss material verbally and also periods of quiet reflection. Gifted and Talented (Advanced) Students: ● Project Based Learning ● Open-ended and informative writing ● Internet based responses ● Curriculum Compacting ● Open ended response	● Use of the inclusion teacher to ● re-instruct in flexible small groups for the struggling learner ● Use of alternate assessments English Language Learners (ELLs) ● Dictionaries ● Mnemonic devices ● Visual aids and modeling ● Provide notes to students as needed in native language ● Cultural responsiveness ● Group students with others of different learning levels and abilities. ● Non-verbal assessments Students At-Risk (BSI) ● Interactive maps ● Jigsaw groups ● Graphic organizers ● Use of technology for class assignments and homework ● Provide opportunities for students to discuss material verbally and also periods of quiet reflection. Gifted and Talented (Advanced) Students: ● Project Based Learning ● Open-ended and informative writing ● Internet based responses ● Curriculum Compacting ● Open ended response
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	- Set individual goals 504 Plans - Preferential seating - Extended time - Reduced homework - Verbal, visual, or technology aids - Oral assessments	- Set individual goals 504 Plans - Preferential seating - Extended time - Reduced homework - Verbal, visual, or technology aids - Oral assessments	- Set individual goals 504 Plans - Preferential seating - Extended time - Reduced homework - Verbal, visual, or technology aids - Oral assessments
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Unit of Study: <i>(Pacing Guide/Scope & Sequence - Specify time frame by days or weeks)</i>	Topic Measurement, Time, Geometry <i>March-June</i> <i>(10 weeks)</i>		
STAGE 1: Desired Results			
Established Goals: Write out complete NJSLS: <i>(Content Specific Standards Only. Only use standards that are applicable to the unit.)</i>	NJSLS: 1.M.A.1: Order three objects by length; compare the lengths of two objects indirectly by using a third object. 1.M.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.M.B.3: Tell and write time in hours and half-hours using analog and digital		

	clocks. 1.M.C.4: Know the comparative values of coins (e.g., a dime is of greater value than a nickel). Use appropriate notation (e.g., 69¢). 1.M.C.5: Find equivalent monetary values (e.g. A nickel is equivalent in value to five pennies.) Show monetary values in multiple ways. For example, show 25 as two dimes and one nickel, and as five nickels. 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, 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.		
Interdisciplinary Connections: Write out	ELA Companion RI.CR.1.1. Ask and answer		

complete NJSLS: <i>(Must have at least one standard from one of these areas but may have more):</i> • ELA companion standards; • Standards for Mathematical Practice • Science; • Visual/Performing Arts) - Standard 1; • Comprehensive Health & PE - Standard 2; • Social Studies - Standard 6; • World Languages - Standard 7;	questions about key details in an informational text (e.g. who, what, where, when, why, how). • <i>It's about Time</i> by Stuart Murphy • <i>Tangled</i> by Anne Miranda • <i>This book is about Time</i> by Marilyn Burns • <i>Super Sand Castle Saturday</i> by Stuart Murphy • <i>The Greedy Triangle</i> by Marilyn Burns • <i>Apple Fractions</i> by Jerry Pallotta • <i>Eating Fractions</i> by Bruce McMillan • <i>Inch by Inch</i> by Leo Leonni • <i>Captain Invincible and the Space Shapes</i> by Stuart Murphy • <i>Give Me Half</i> by Stuart Murphy • Create useful object using shapes • Write a shape poem • Use of measurement to collect data		
Integration of Career Readiness, Life Literacies & Key Skills: Write out complete NJSLS: <i>(Must have at least one standard from:</i> • 9.1 Personal Financial Literacy; or • 9.2 Career Awareness, Exploration, Preparation & Training; or • 9.4 Life Literacies &	Life Literacies & Key Skills 9.4.2.CI.1: Demonstrate openness to new ideas and perspectives. 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.GCA.1: Articulate the role of culture in everyday life by describing one's own culture and comparing it to the cultures of other individuals.		

<i>Key Skills)</i>			
Integration of Computer Science and Design Thinking: Write out complete NJSLS: <i>(Must have at least one standard from:</i> ● 8.1 Computer Science; or ● 8.2 Design Thinking)	Design Thinking 9.4.2.CI.1: Demonstrate openness to new ideas and perspectives. 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.GCA.1: Articulate the role of culture in everyday life by describing one's own culture and comparing it to the cultures of other individuals.		
21st Century Life and Careers: Career Education: Write out complete NJSLS: <i>(Only include if a CTE curriculum</i> ● 9.3 Career and Technical Education)	N/A		
Enduring Understandings: <i>(Follow UbD: What big ideas will students know?)</i>	● Measurement can be represented by a total number of length units. ● Length can be determined by comparing objects. ● Time can be represented by numbers and words. ● Shapes can be identified, built, and drawn according to their unique attributes. ● New shapes can be created from existing 2-D and 3-D shapes. ● Shapes can be described as equal parts.		

Essential Questions: <i>(Follow UbD best practices in the creation of questions)</i>	1. Why is it important to have standard measurement? 2. How can measurement be used to solve problems? 3. How can we use what we know about shapes to build and create new figure? 4. In what ways can objects be measured, compared and ordered by length? 5. What would life be like if there was no measurement for time?		
STAGE 2: Evidence			
Assessment & Evidence: <i>(By what criteria will performances of understanding be judged? Include:</i> 1. Formative, 2. Summative, 3. Alternative - Performance/Project) 4. Benchmark)	Formative Assessments ● Learning Centers ● Quizzes ● Student Participation ● Teacher Observations ● Textbook/Workbook Activities Summative Assessments ● Unit Assessments (may include but not limited to): Tests, Quizzes, Google Forms etc Alternative Assessments ● Performance Tasks to solve real world problems ● Projects ● Exit Tickets ● Problem based or concept based projects ● Math journals		

	Benchmark Assessments ● Student Growth Assessments ● IXL test ● Aims Web		
STAGE 3: Learning Plan			
Learning Activities/Content: <i>(What is the core content of this unit? What performance tasks/ activities will students do? What skills will students know? Include content that adheres to NJ Administrative Code and Statutes:</i> ● <i>Amistad Law</i> ● <i>Holocaust Law</i> ● <i>LGBTQ/Disabilities Law</i>	Activities ● Compare the length of two objects. ● Compare the length of two objects by using a third object as a measuring tool. ● Order three objects by length. ● Order three objects by length and compare the lengths of two objects by using the third object (e.g., if the crayon is shorter than the marker and the marker is shorter than the pencil then the crayon is shorter than the pencil). ● Lay multiple copies of a shorter object (the length unit) end to end. ● Use a shorter object to express the length of a longer object. ● Order three objects by length and compare the lengths of two objects by using the third object (e.g., if the crayon is shorter than the marker and the marker is shorter than the pencil then the crayon is shorter than the pencil). ● Tell and write time in hours using analog and digital clocks.		

	● Tell and write time in half-hours using analog and digital clocks. ● Use the term o'clock in reporting time to the hour. ● Name attributes that define two-dimensional shapes (square, triangle, rectangle, regular hexagon). ● Name attributes that do not two-dimensional shapes. ● Build and draw shapes when given defining attributes. ● Create a composite shape using two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles). ● Create a composite shape using three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders). ● Compose new shapes from the composite shapes. ● Create a composite shape by composing 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), and compose new shapes from the composite shape. ● Partition circles and rectangles into two or four equal shares.		
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	● Distinguish equal shares from those that are not equal. ● Describe shares using the words halves, fourths, and quarters. ● Describe the relationship between the whole and the share using the phrases half of, fourth of, and quarter of. ● Describe the whole as two of, or four of the shares. ● Decompose a whole into a greater number of equal shares and identify the new shares as smaller. ● 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. ● Describe the whole circle (or rectangle) partitioned into two or four equal shares as two of, or four of the shares. ● Compare and order length of objects such as string, straws, classroom items, blocks, etc. ● Use cubes, paper clips, craft sticks, counting beans for non-standard units of measuring objects and pictorial representations ● Estimate length of object, check ● Read and write time from digital clocks ● Read and write time from analog clock		
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	● Match digital clock to analog clock ● Apply knowledge to daily schedule ● Math Songs ● Shape Hunt - identify and record plane shapes and solid figures in classroom or school ● Tangram Puzzles http://www.abcya.com/tangrams.htm ● Define attributes of basic shapes ● Attribute blocks, attribute links, tangrams, pattern blocks ● Create new shapes using basic shapes Diversity and Inclusion Law (N.J.S.A. 18A:35-4.36a) ● Collaborate with your peers to solve culturally responsive word problems ● Answer questions by using multiple and varying perspectives and sources. Amistad Law (N.J.S.A. 18A:52-16A-88) ● Students will participate in mathematical activities that incorporate diverse names, cultures, and real-world contexts while recognizing the contributions of African Americans and other diverse individuals to society. Through		
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	collaborative problem-solving, students will develop respect, fairness, and appreciation for the experiences and perspectives of others. Holocaust Law (N.J.S.A. 18A:35-28) Through age-appropriate collaborative learning experiences, students will develop kindness, empathy, cooperation, and respect for others. Mathematical activities will encourage fairness, sharing, responsible decision-making, and the understanding that every individual deserves to be treated with dignity and respect.		
Resources: <i>(Include names of texts and all online resources)</i>	HMH Into Math IXL.com Brainpopjr.com - Generationgenius.com Weareteachers-math manipulatives - Math Songs, Poems, etc. www.mathstory.com/ www.funbrain.com http://www.coolmath.com/ www.khanacademy.org Fraction Game Fractions Coloring Sheet  Let's Learn Fractions! Und... Telling Time Video Time Travel		

	● Just a Minute! Education World ● Instructure.com ● KhanAcademyearly_math ● Extension Activities for Gifted Math Learners ● http://ncaigirp.ncdpi.wikispaces.net/Mathematics+K-2 ● http://www.sheppardsoftware.com/mathgames/earlymath/fractions_shoot.htm ● Geometric Shape Bubbles ● http://babbledabbledo.com/science-engineering-kids-tensile-bubbles		
Differentiation: <i>(What type of differentiated instruction will be used for each of the following subgroups:</i> 1. <i>Special Education</i> 2. <i>English Language Learners (ELLs)</i> 3. <i>At Risk/BSI</i> 4. <i>Gifted & Talented/Advanced</i> 5. <i>504)</i>	Special Education ● IEP-Individual Educations Plans ● Exemplars of varied performance levels ● Consultation with CST ● Manipulatives ● Provide access to a computer ● Provide oral reminders and check students works ● Guided note-taking ● Study Guides ● Modified homework ● Differentiated pre-typed class notes and example problems ● Use of the inclusion teacher to re-instruct in flexible small groups for the struggling learner ● Use of alternate assessments English Language Learners (ELLs) ● Dictionaries ● Mnemonic devices		

	● Visual aids and modeling ● Provide notes to students as needed in native language ● Cultural responsiveness ● Group students with others of different learning levels and abilities. ● Non-verbal assessments Students At-Risk (BSI) ● Interactive maps ● Jigsaw groups ● Graphic organizers ● Use of technology for class assignments and homework ● Provide opportunities for students to discuss material verbally and also periods of quiet reflection. Gifted and Talented (Advanced) Students: ● Project Based Learning ● Open-ended and informative writing ● Internet based responses ● Curriculum Compacting ● Open ended response ● Set individual goals 504 Plans ● Preferential seating ● Extended time ● Reduced homework ● Verbal, visual, or technology aids ● Oral assessments		
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