1st Grade Math Curriculum

Egg Harbor Township School District

State Board Adoption Date of Standards: 5/2016

Unit Overview (Standards Coverage)				
Unit	**Standards**	**Unit Focus**	**Standards for Mathematical Practice**	**Open Educational Resources**
Unit 1 *Addition and Subtraction within 20* *60 days*	**1.OA.A** **1.OA.C** **1.OA.B**	**Solve addition and subtraction problems to 10.** **Fluently add & subtract within 10.** **Use strategies to add facts to 20.** **Use strategies to subtract facts to 20.**	MP.1 Make sense sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively.	1.OA.A.1 Sharing Markers 1.OA.B.3 Domino Addition 1.OA.B.4 Cave Game Subtraction 1.OA.A.1 School Supplies 1.OA.B.3 Doubles? 1.OA.C.6 $20 Dot Map 1.OA.A.2 Daisies in vases 1.OA.C.6 Making a ten
Unit 2 *Place Value, Represent and Interpret Data, Addition and Subtraction Equations* *60 days*	**1.OA.D** **1.MD.C** **1.NBT.A** **1.NBT.B**	**Work with addition and subtraction equations** **Represent and interpret data** **Extend the counting sequence** **Understand place value**	MP.3 Construct viable arguments & critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically.	1.OA.D.8 Kiri's Mathematics Match Game 1.OA.D.7 Equality Number Sentences 1.OA.D.7 Valid Equalities? 1.OA.D.8 Find the Missing Number 1.NBT.A.1 Hundred Chart Digit Game 1.NBT.B.2 Roll & Build 1.NBT.B.3 Ordering Numbers 1.NBT.A.1 Start/Stop Counting 2
Unit 3 *Place Value, Time, Measurement and Shapes* *60 days*	**1.NBT.C** **1.MD.A** **1.MD.B** **1.G.A**	**Use place value understanding and properties of operations to add and subtract.** **Measure lengths indirectly and by iterating length units.** **Tell and write time.** **Reason with shapes and their attributes**	MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning	1.NBT.C.4 Ford and Logan Add 45+36 1.NBT.C.5 Number Square 1.MD.A.2 Measure Me! 1.MD.A.2 Measuring Blocks 1.MD.A.2 Growing Bean Plants 1.MD.B Making a clock

This document outlines in detail the answers to following four questions:

1. **What do we want our students to know?**
2. **How do we know if they learned it?**
3. **What do we do if they did not learn it?**
4. **What do we do when they did learn it?**

Unit 1 MATH 1ST GRADE		
Content & Practice Standards	**Interdisciplinary Standards**	**Critical Knowledge & Skills**
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. (See Glossary) 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. (Students need not use formal terms for these properties.) 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.) 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). 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 $6 + 6 + 1 = 12 + 1 = 13$).	**Infused within the unit are connections to the NJSLS for Mathematics, Language Arts Literacy. Key Ideas and Details NJSLSA.R1 Read closely to determine what the text says explicitly and make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.**	**-solve problems; add to, put together, both addends unknown, take from, compare situations, put together/take apart** **-count on to add** **- identify doubles** **-solve near doubles** **-solve facts on a ten frame** **-add in any order** **-count back to subtract** **-think addition to subtract** **-solve word problems with facts to 20** **-use an open number line** **-make ten to add** **-explain addition strategies** **-count to subtract** **-make ten to subtract** **-generate fact families** **-use addition to subtract** **-explain subtraction strategies**

Unit 1 MATH 1ST GRADE
Stage 1 – Desired Results

UNIT SUMMARY	CORE AND SUPPLEMENTAL MATERIALS/RESOURCES
First grade students will be able to add and subtract numbers within 20 and solve word problems using multiple strategies. They will know what operation to use based on learned mathematical vocabulary. For example: find the sum, find the difference, count on,count back, make a ten, and use a related fact. Students will be able to demonstrate fluency for addition and subtraction within 20.	Print material White board Computer Smart Projector Laptops Books that go along with Math concepts. ex: Subtraction Action,Shark Swimathon, What's New at the Zoo, Domino Addition Envision Math 2.0 (Utilize all components) Chapters 1-4

UNDERSTANDINGS
Students will understand that multiple strategies can be used to add and subtract numbers within 20.

Students will know…	Students will be able to…
-Use pictures to "count on" and find sums *-Use concrete objects to solve "count on" addition problems* *-Build fluency for addition/subtraction within 20* *-Use count on/count back as a strategy* *-Use doubles/near doubles as a strategy* *-Addition and subtraction are related and can be used to solve problems* *-Use an open number line* *-Choose a strategy to solve an addition/subtraction problem* *-Identify related addition and subtraction facts within 20*	**-solve problems; add to, put together, both addends unknown, take from, compare situations, put together/take apart** **-count on to add** **- identify doubles** **-solve near doubles** **-solve facts on a ten frame** **-add in any order** **-count back to subtract** **-think addition to subtract** **-solve word problems with facts to 20** **-use an open number line** **-make ten to add** **-explain addition strategies** **-count to subtract** **-make ten to subtract** **-generate fact families** **-use addition to subtract** **-explain subtraction strategies**

Stage 2 – Assessment Evidence

Performance Tasks/Use of Technology	Other Evidence:
	Formative
Conferencing/Individual small group	Quizzes
Centers	Exit slips
Whole Group Instruction	Peer/Self Assessments
Word Problems	Think Pair Share
Observations	Strategic Questioning
Google Slides	Moby Max
https://www.abcya	
https://coolmath	
https://mathplayground	**Summative**
	Chapter/Unit Tests
	Moby Max Math Assessments

Stage 3 – Learning Plan

• *All lessons in Topics 1-4 will be covered in this unit.*

• *Points of focus include understanding the relationship between addition and subtraction; multiple strategies can be used to find sums/differences.*

• *Common misconceptions to be addressed include: there is only one way to solve a problem and addition and subtraction are unrelated entities.*

• *Final performance obligations expected from students is the ability to add and subtract within 20 using multiple strategies.*

• *Hook the student through engaging and provocative entry points: thought-provoking and focusing experiences, issues, oddities, problems, and challenges that point toward essential questions, core ideas, and final performance tasks.*

• *Explore and Equip. 21st Century Learning and Interdisciplinary connections. Engage students in learning experiences that allow them to explore the big ideas and essential questions; that cause them to pursue leads or hunches, research and test ideas, try things out. Equip students for the final performances through guided instruction and coaching on needed skill and knowledge. Have them experience the ideas to make them real.*

• *Organize and sequence the learning for maximal engagement and effectiveness, given the desired results.*

Planned Differentiation & Interventions for Tiers I, II, III, ELL, SPED, and Gift & Talented Students

• Rethink and revise. Dig deeper into ideas at issue (through the faces of understanding). Revise, rehearse, and refine, as needed. Guide students in self-assessment and self-adjustment, based on feedback from inquiry, results, and discussion.

• Evaluate understandings. Reveal what has been understood through final performances and products. Involve students in a final self-assessment to identify remaining questions, set future goals, and point toward new units and lessons.

•Tailor (personalize) the work to ensure maximum interest and achievement. Differentiate the approaches used and provide sufficient options and variety (without compromising goals) to make it most likely that all students will be engaged and effective.

Gifted & Talented:
- "Differentiating the Lesson" in EnVision Math online resources for all sections
- "Additional Topics" in EnVision Math online resources to extend and enhance instruction
- Advanced Center Activities from EnVision Math
- Design Challenges
- Student Choice/Driven Activities
- Group Projects
- MobyMax
- LinkIt
- Rocket Math
- Intervention Central
- Do to Learn
- Differentiation Strategies for Math
- Discovery Education Math
- Everyday Mathematics
- Homework Spot
- Flash Card Math
- Math Fact Fluency

Tier I:
- Progress Monitoring/Data Tracking
- EnVision Math "Error Intervention" resource
- Visual Learning examples
- Working Backward problem solving EnVision Math resource
- Flash Cards
- Brain Pop
  Extended Time

- Flexible Grouping
- Centers/Small Group Instruction
- Peer Buddies
- Math Tutoring Center (HS only)
- Math Lab/Tutorial
- MobyMax
- LinkIt!
- Rocket Math
- Intervention Central
- Do to Learn
- Learning Ally
- Xtramath
- Differentiation Strategies for Math
- Discovery Education Math
- Everyday Mathematics
- Homework Spot
- Flash Card Math
- Math Fact Fluency
- EnVision Math Reteach resource

Tier II:
- EnVision Math Daily Assessment Resource
- Differentiated Instruction assignments through EnVision Math
- MobyMax
- Rocket Math
- Xtramath
- Flash Cards

Tier III:
- Intense Interventions to accelerate progress EnVision Math resource
- Focus Math
- Systematic Assessments to focus on specific deficits

ELL:
- EnVision Math resources available in Spanish
- Letters to Parents are available in the Resources by Chapter book to assist in guiding parents through each chapter and offer helpful suggestions they can use to demonstrate mathematical concepts for their child in daily activities. These letters are editable so teachers can customize them.
- Student Dynamic eBook Audio has the option to be read in English or Spanish
- Multi-Language Glossary for new Math vocabulary is available in 14 different languages.

- Audio version is available in English or Spanish.
- Game Closet can be accessed in English or Spanish, while also allowing for all students to play and understand these educational games.
- ELL Notes included in Teacher Edition to help teachers overcome obstacles.
- Record & Practice Journal available in Spanish.
- Student Journal available in Spanish.
- Chapter Reviews available in English and Spanish.
- Vocabulary Flash Cards
- Chunking Information
- Math Word Wall/Word Bank
- Multi-Sensory Instruction
- Use of Translation software
- Gradual Release Model
- TODOS: Mathematics for ALL - Excellence and Equity in Mathematics
- FABRIC - A Learning Paradigm for ELLs (NJDOE resource)

SPED:
- Menu Math (mostly for very low functioning students)
- MobyMax
- LinkIt!
- Xtramath
- Learning Ally (audio version for textbooks and other published materials) – Also available for 504 students
- Use of specialized equipment such as beeping balls, text to speech and speech to text software, special seats or desks
- Use of hands-on materials for problem solving
- Visual supports and Use of manipulatives
- Extended time to complete tests and assignments
- Graphic Organizers/Study Guides
- Mnemonic tricks to improve memory
- Reducing workload
  Centers/Small Group Instruction
- Adjusting accountability for standards by focusing only on essential standards
- Use of IPads or laptops for students with motor issues that make writing difficult
- Use of tangible rewards (certificates, small toys, etc. per behavior plan)
- Use prompts and model directions/assignments
- Use task analysis to break down activities and lessons into each individual step needed to complete the task
- Use concrete examples to teach concepts
- Have student repeat/rephrase written directions
- Provide multi-sensory, hands-on materials for instruction
- Chunking Information

- Modify all fine motor tasks for example: (fat crayons, pencil grip, adaptive scissors)
- Functional or practical emphasis

504:

- Learning Ally (audio version for textbooks and other published materials)
- Extra help opportunities
- Reduce workload
- Partial credit
- Allow use of calculator, when appropriate
- Modified length and time frame of assignments
- Alternate assessments with extended time
- Provide guided notes and study guides as needed (use interactive notebook)
- Preferential Seating
- Extra Practice
- Directions repeated, clarified and reworded
- Breakdown task into manageable units
- Differentiated instruction
- Use of manipulatives

Unit 2 MATH 1ST GRADE		
Content & Practice Standards	**Interdisciplinary Standards**	**Critical Knowledge & Skills**
1.OA.A, 1.OA.B, 1.OA.D	Infused within the unit are connections to the NJSLS for Mathematics, Language Arts Literacy.	Find the unknown numbers, True or false equations, Make true equations, Word problems

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. (See Glossary) 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. 3. Apply properties of operations as strategies to add and subtract. (Students need not use formal terms for these properties.) 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.) 4. Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8. 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? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$. 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.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. **1.NBT.A, 1.NBT.B, 1.NBT.C**	**Key Ideas and Details NJSLSA.R1 Read closely to determine what the text says explicitly and make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.**	**with three addends, Add 3 numbers, Solve addition and subtraction word problems, Math practices and problem solving: Precision Organize data into 3 categories, Collect and represent data, Interpret data, Math practices and problem solving: Make sense and persevere Count by 10s to 120, Count by 1s to 120, Count on a number chart to 120, Count by 1s or 10s to 120, Count on an open number line, Count and write numerals, Math practices and problem solving: Repeated Reasoning Make numbers 11 to 19, Numbers made with tens, Count with groups of tens and leftovers, Tens and ones, Math practices and problem solving: Look for and use structure 1 more, 1 less, 10 more, 10 less; Make numbers on a hundreds chart; compare numbers; Compare numbers with symbols ($>$, $<$, $=$); Compare Numbers on a number line; Math practices and problem solving: Make sense and persevere**

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.

2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:

2a. 10 can be thought of as a bundle of ten ones, called a "ten."

2b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.

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).

3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

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 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.

5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

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 strategy to a written method and explain reasoning.

Unit 2 MATH 1ST GRADE
Stage 1 – Desired Results

UNIT SUMMARY	CORE AND SUPPLEMENTAL MATERIALS/RESOURCES

First grade students will be able to use addition and subtraction equations within 20 and solve word problems using multiple strategies. They will know what operation to use based on learned mathematical vocabulary. For example: find the sum, find the difference, count on, count back, make a ten, and use a related fact. Students will be able to demonstrate fluency for addition and subtraction within 20. Students will also create and interpret graphs, and extend the counting sequence up to 120. Students will build and compare 2-digit numbers and use their understanding of place value to decide greater than, less than, or equal to.	Print material White board Computer Smart Projector Laptops Playing WAR (greater than/less than) Books that go along with Math concepts. ex: Subtraction Action , Shark Swimathon, What's New at the Zoo, Domino Addition, The Great Graph Contest Envision Math 2.0 (Utilize all components) Chapters 5-9

UNDERSTANDINGS

Students will understand that multiple strategies can be used to add and subtract numbers within 20 and also to solve word problems, know and write the correct sequence of numbers up to 120, use place value to understand that numbers are composed of groups of tens and ones, and be able to compare 2-digit numbers using place value

Students will know…	Students will be able to…
Create and solve addition and subtraction equations and word problems **Represent and interpret data** **Count (by 10s and 1s), write, and extend the counting sequence up to 120** **Understand place value as numbers being composed of groups of 10s and 1s.** **Compare 2-digit numbers with and without symbols (>, <, =)**	**Find the unknown numbers, True or false equations,, Make true equations, Word problems with three addends, Add 3 numbers, Solve addition and subtraction word problems, Math practices and problem solving: Precision** **Organize data into 3 categories, Collect and represent data, Interpret data, Math practices and problem solving: Make sense and persevere** **Count by 10s to 120, Count by 1s to 120, Count on a number chart to 120, Count by 1s or 10s to 120, Count on an open number line, Count and write numerals, Math practices and problem solving: Repeated Reasoning** **Make numbers 11 to 19, Numbers made with tens, Count with groups of tens and leftovers, Tens and ones, Math practices and problem solving: Look for and use structure** **1 more, 1 less, 10 more, 10 less; Make numbers on a hundreds chart; compare numbers; Compare numbers with symbols (>, <, =); Compare Numbers on a number line; Math practices and problem solving: Make sense and persevere**

Stage 2 – Assessment Evidence

Performance Tasks/Use of Technology	Other Evidence: **Formative** Quizzes

Conferencing/Individual Small group Centers Whole group Instruction Word problems Observations https://www.abcya https://cool math https://www.math playground	Exit slips Peer/Self Assessments Think Pair Share Strategic Questioning https://www.abcya https://cool math https://www.math playground **Summative** End Chapter Tests and Unit Tests Moby Max

Stage 3 – Learning Plan

• *All lessons in Topics 5-9 will be covered in this unit.*

• *Points of focus include understanding the relationship between addition and subtraction; multiple strategies can be used to find sums/differences alone and within word problems; create and interpret graphs; extend the counting sequence to 120; use place value to compare numbers.*

• *Common misconceptions to be addressed include: there is only one way to solve a problem and addition and subtraction are unrelated entities, categories can be included in data, mistakenly starting with the tens column when adding vs the ones column.*

• *Final performance obligations expected from students is the ability to add and subtract within 20 using multiple strategies, solve word problems, read and interpret graphs, extend the writing sequence to 120, understand and use place value to build and compare numbers, both with and without symbols (<, >, =).*

• *Hook the student through engaging and provocative entry points: thought-provoking and focusing experiences, issues, oddities, problems, and challenges that point toward essential questions, core ideas, and final performance tasks.*

• *Explore and Equip. 21st Century Learning and Interdisciplinary connections. Engage students in learning experiences that allow them to explore the big ideas and essential questions; that cause them to pursue leads or hunches, research and test ideas, try things out. Equip students for the final performances through guided instruction and coaching on needed skill and knowledge. Have them experience the ideas to make them real.*

•*Organize and sequence the learning for maximal engagement and effectiveness, given the desired results.*

• *Where is the work headed? Why is it headed there? What are the student's final performance obligations, the anchoring performance assessments? What are the criteria by which student work will be judged for understanding? (These are questions asked by students. Help the student see the answers to these questions upfront.)*

• Hook the student through engaging and provocative entry points: thought-provoking and focusing experiences, issues, oddities, problems, and challenges that point toward essential questions, core ideas, and final performance tasks.

• Explore and Equip. 21st Century Learning and Interdisciplinary connections. Engage students in learning experiences that allow them to explore the big ideas and essential questions; that cause them to pursue leads or hunches, research and test ideas, try things out. Equip students for the final performances through guided instruction and coaching on needed skill and knowledge. Have them experience the ideas to make them real.

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- EnVision Math Reteach resource

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ELL:
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SPED:
- Menu Math (mostly for very low functioning students)
- MobyMax
- LinkIt!
- Xtramath
- Learning Ally (audio version for textbooks and other published materials) – Also available for 504 students
- Use of specialized equipment such as beeping balls, text to speech and speech to text software, special seats or desks
- Use of hands-on materials for problem solving
- Visual supports and Use of manipulatives
- Extended time to complete tests and assignments
- Graphic Organizers/Study Guides
- Mnemonic tricks to improve memory

- Reducing workload
  Centers/Small Group Instruction
- Adjusting accountability for standards by focusing only on essential standards
- Use of IPads or laptops for students with motor issues that make writing difficult
- Use of tangible rewards (certificates, small toys, etc. per behavior plan)
- Use prompts and model directions/assignments
- Use task analysis to break down activities and lessons into each individual step needed to complete the task
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- Modify all fine motor tasks for example: (fat crayons, pencil grip, adaptive scissors)
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504:
- Learning Ally (audio version for textbooks and other published materials)
- Extra help opportunities
- Reduce workload
- Partial credit
- Allow use of calculator, when appropriate
- Modified length and time frame of assignments
- Alternate assessments with extended time
- Provide guided notes and study guides as needed (use interactive notebook)
- Preferential Seating
- Extra Practice
- Directions repeated, clarified and reworded
- Breakdown task into manageable units
- Differentiated instruction
- Use of manipulatives

Unit 3 MATH 1ST GRADE		
Content & Practice Standards	**Interdisciplinary Standards**	**Critical Knowledge & Skills**
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 or drawings and strategies based on place value, properties of	**Infused within the unit are connections to the NJSLS for Mathematics, Language Arts Literacy. Key Ideas and Details NJSLSA.R1 Read closely to determine what the text says explicitly and make logical inferences and relevant connections from**	**Add tens using models, mental math: ten more than a number, add tens and ones using a hundred chart, add tens and ones using an open number line, add tens and one using models, make a ten to add, add using place value, practice**

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.

5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

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.

1.MD.A, 1.MD.B

1. Order three objects by length; compare the lengths of two objects indirectly by using a third object.

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.

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.

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

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it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

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adding using strategies, math practices and problem solving (model with math).

Subtract tens using models, subtract tens using a hundreds chart, subtract tens using an open number line, use addition to subtract tens, mental math: ten less than a number, use strategies to practice subtraction, math practices and problem solving (model with math).

Compare and order by length, indirect measurement, use units to measure length, continue to measure length, math practices and problem solving (use appropriate tools).

Understand the hour and minute hands, tell and write time to the hour, tell and write time to the half hour, math practices and problem solving (reasonings).

Use attributes to define two-dimensional shapes, defining and non-defining attributes of 2-D shapes, build and draw 2-D shapes by attributes, compose 2-D shapes, compose new 2-D shapes from 2-D shapes, use attributes to define three-dimensional shapes, defining and non-defining attributes of 3-D shapes, composewith 3-D shapes, math practices and problem solving (make sense and persevere).

Make equal shares, make halves and fourths of rectangles and circles, understand halves and fourths, math practices and problem solving (model with math).

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composite shape. (Students do not need to learn formal names such as "right rectangular prism.") 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.		

Unit 3 MATH 1ST GRADE

Stage 1 – Desired Results

UNIT SUMMARY	CORE AND SUPPLEMENTAL MATERIALS/RESOURCES
In this unit students will continue to use place value understanding to add and subtract 2 digit numbers. Unit 3 will include learning 2 digit addition with and without regrouping. In addition, first grade students will order 3 objects by length and compare lengths of objects. Telling and writing time in hours and half hours-using both analog and digital clocks taught in topic 13. . The students will be able to define and compare attributes of 2 and 3 dimensional shapes (triangles, cubes, prisms, cones). Attributes can be color, orientation, overall size. The students will be able to compose 2 or 3 dimensional shapes as well as partition certain objects. They will use vocabulary such as halves and fourths.	Print material White board Computer Smart Projector Chromebooks Books that go along with Math concepts. ex: Subtraction Action,Shark Swimathon, What's New at the Zoo, Domino Addition, What Time is it Mr. Crocodile?, Hickory Dickory Dock, The Clock Struck One Big Analog Clock Envision Math 2.0 (Utilize all components) Chapters 10-15

UNDERSTANDINGS

Students will understand that multiple strategies can be used to add and subtract 2 digit numbers using place value. Students will understand how to measure and compare lengths. Students will understand that time can be interrupted in minutes and hours. Students will understand how to compose and identify 2D and 3D shapes.Students will understand equal shares.

Students will know…	Students will be able to…
● Use models and strategies to add tens and ones ● Use models and strategies to subtract tens ● Measure and compare lengths by nonstandard units ● Tell and write time to the hour and half hour on both an analog and digital clock ● Reason with shapes and their attributes (both 2D and 3D shapes) ● Understand equal shares of circles and rectangles	Add tens using models, mental math: ten more than a number, add tens and ones using a hundred chart, add tens and ones using an open number line, add tens and one using models, make a ten to add, add using place value, practice adding using strategies, math practices and problem solving (model with math). Subtract tens using models, subtract tens using a hundreds chart, subtract tens using an open number line, use addition to subtract tens, mental math: ten less than a number, use strategies to practice subtraction, math practices and problem solving (model with math). Compare and order by length, indirect measurement, use units to measure length, continue to measure length, math practices and problem solving (use appropriate tools).

	Understand the hour and minute hands, tell and write time to the hour, tell and write time to the half hour, math practices and problem solving (reasonings). Use attributes to define two-dimensional shapes, defining and non-defining attributes of 2-D shapes, build and draw 2-D shapes by attributes, compose 2-D shapes, compose new 2-D shapes from 2-D shapes, use attributes to define three-dimensional shapes, defining and non-defining attributes of 3-D shapes, composewith 3-D shapes, math practices and problem solving (make sense and persevere). Make equal shares, make halves and fourths of rectangles and circles, understand halves and fourths, math practices and problem solving (model with math).

Stage 2 – Assessment Evidence

Performance Tasks/Use of Technology

Conferencing/Individual Small Group
Centers
Whole Group Instruction
Word Problems
Observations
MobyMax
https://www.abcya
http://coolmath
https://www.mathplayground

Other Evidence:
Formative
Quizzes
Exit Slips
Peer/Self Assessments
Think Pair Share
Strategic Questioning
https://www.abcya
https://coolmatah
http://mathplayground
Summative - End Chapter Tests/Unit Test, Moby Max

Stage 3 – Learning Plan

• *All lessons in Topics 10-15 will be covered in this unit.*

• *Points of focus include understanding place value, addition/subtraction using place value, measurement with non-standard units, identifying shapes and their attributes, and understanding equal shares.*

• *Common misconceptions to be addressed include: measurement must me done with only standard units, and there are multiple ways to distribute equal shares.*

• *Final performance obligations expected from students include: identifying place value, addition/subtraction of 2 digit numbers using place value, measuring an object with a non-standard unit, identify 2D/3D shapes and their attributes, and tell time to the half hour and hour.*

• *Hook the student through engaging and provocative entry points: thought-provoking and focusing experiences, issues, oddities, problems, and challenges that point toward essential questions, core ideas, and final performance tasks.*

• *Explore and Equip. 21st Century Learning and Interdisciplinary connections. Engage students in learning experiences that allow them to explore the big ideas and essential questions; that cause them to pursue leads or hunches, research and test ideas, try things out. Equip students for the final performances through guided instruction and coaching on needed skill and knowledge. Have them experience the ideas to make them real.*

•*Organize and sequence the learning for maximal engagement and effectiveness, given the desired results.*

Planned Differentiation & Interventions for Tiers I, II, III, ELL, SPED, and Gift & Talented Students

• *Rethink and revise. Dig deeper into ideas at issue (through the faces of understanding). Revise, rehearse, and refine, as needed. Guide students in self-assessment and self-adjustment, based on feedback from inquiry, results, and discussion.*

• *Evaluate understandings. Reveal what has been understood through final performances and products. Involve students in a final self-assessment to identify remaining questions, set future goals, and point toward new units and lessons.*

•*Tailor (personalize) the work to ensure maximum interest and achievement. Differentiate the approaches used and provide sufficient options and variety (without compromising goals) to make it most likely that all students will be engaged and effective.*

Gifted & Talented:
- "Differentiating the Lesson" in EnVision Math online resources for all sections
- "Additional Topics" in EnVision Math online resources to extend and enhance instruction
- Advanced Center Activities from EnVision Math
- Design Challenges
- Student Choice/Driven Activities
- Group Projects
- MobyMax
- LinkIt
- Rocket Math
- Intervention Central
- Do to Learn
- Differentiation Strategies for Math
- Discovery Education Math
- Everyday Mathematics

- [Homework Spot](#)
- [Flash Card Math](#)
- [Math Fact Fluency](#)

Tier I:
- Progress Monitoring/Data Tracking
- EnVision Math "Error Intervention" resource
- Visual Learning examples
- Working Backward problem solving EnVision Math resource
- Flash Cards
- Brain Pop
  Extended Time
- Flexible Grouping
- Centers/Small Group Instruction
- Peer Buddies
- Math Lab/Tutorial
- MobyMax
- LinkIt!
- Rocket Math
- [Intervention Central](#)
- [Do to Learn](#)
- [Learning Ally](#)
- [Xtramath](#)
- [Differentiation Strategies for Math](#)
- [Discovery Education Math](#)
- [Everyday Mathematics](#)
- [Homework Spot](#)
- [Flash Card Math](#)
- [Math Fact Fluency](#)
- EnVision Math Reteach resource

Tier II:
- EnVision Math Daily Assessment Resource
- Differentiated Instruction assignments through EnVision Math
- MobyMax
- Rocket Math
- Xtramath
- Flash Cards

Tier III:
- Intense Interventions to accelerate progress EnVision Math resource
- Focus Math
- Systematic Assessments to focus on specific deficits

ELL:
- EnVision Math resources available in Spanish
- Letters to Parents are available in the Resources by Chapter book to assist in guiding parents through each chapter and offer helpful suggestions they can use to demonstrate mathematical concepts for their child in daily activities. These letters are editable so teachers can customize them.
- Student Dynamic eBook Audio has the option to be read in English or Spanish
- Multi-Language Glossary for new Math vocabulary is available in 14 different languages.
- Audio version is available in English or Spanish.
- Game Closet can be accessed in English or Spanish, while also allowing for all students to play and understand these educational games.
- ELL Notes included in Teacher Edition to help teachers overcome obstacles.
- Record & Practice Journal available in Spanish.
- Student Journal available in Spanish.
- Chapter Reviews available in English and Spanish.
- Vocabulary Flash Cards
- Chunking Information
- Math Word Wall/Word Bank
- Multi-Sensory Instruction
- Use of Translation software
- Gradual Release Model
- TODOS: Mathematics for ALL - Excellence and Equity in Mathematics
- FABRIC - A Learning Paradigm for ELLs (NJDOE resource)

SPED:
- Menu Math (mostly for very low functioning students)
- MobyMax
- LinkIt!
- Xtramath
- Learning Ally (audio version for textbooks and other published materials) – Also available for 504 students
- Use of specialized equipment such as beeping balls, text to speech and speech to text software, special seats or desks
- Use of hands-on materials for problem solving
- Visual supports and Use of manipulatives
- Extended time to complete tests and assignments
- Graphic Organizers/Study Guides
- Mnemonic tricks to improve memory

- Centers/Small Group Instruction
- Adjusting accountability for standards by focusing only on essential standards
- Use of IPads or laptops for students with motor issues that make writing difficult
- Use of tangible rewards (certificates, small toys, etc. per behavior plan)
- Use prompts and model directions/assignments
- Use task analysis to break down activities and lessons into each individual step needed to complete the task
- Use concrete examples to teach concepts
- Have student repeat/rephrase written directions
- Provide multi-sensory, hands-on materials for instruction
- Chunking Information & Reducing Workload
- Modify all fine motor tasks for example: (fat crayons, pencil grip, adaptive scissors)
- Functional or practical emphasis

504:
- Learning Ally (audio version for textbooks and other published materials)
- Extra help and practice opportunities
- Partial credit/Reduce Workload
- Allow use of calculator, when appropriate
- Alternate/Modified assessments with extended time
- Provide guided notes and study guides as needed (use interactive notebook)
- Preferential Seating
- Breakdown task into manageable units (Directions repeated, clarified and reworded)
- Differentiated instruction
- Use of manipulatives