BURCH CHARTER SCHOOL OF EXCELLENCE

2020-2021

Mathematics Grade 2

Approved by the Burch Charter School of Excellence Board of Trustees

August 2020

MISSION STATEMENT OF BURCH CHARTER SCHOOL OF EXCELLENCE:

Burch Charter School of Excellence (BCSE) was founded in September, 2008. Our primal mission is to enable students to reach their intellectual and personal potential. We strive to instill integrity and respect in our students' in partnership with families and the community. We maintain a blended learning environment that enhances positive character traits that ensures our students become productive 21st century world citizens. The Burch Charter School of Excellence, a public school, is committed to providing best practices for educating our students in an environment that enables them to develop into critical thinkers that evolve into digital, life-long learners. Our curriculum emphasizes literacy and mathematics infused with technology.

We believe:

- Our students will be effective communicators, quality producers, self-directed lifelong learners, community contributors, collaborative workers and complex thinkers;
- All students are entitled to opportunities to maximize their talents and abilities;
- Our ethnic and cultural diversity is our strength and prepares students for success in a global society;
- Setting high expectations for students, teachers and administrators ensures that our students successfully meet or exceed the New Jersey Student Learning Standards.
- Parents are essential partners in the education of their children;
- Maintaining a strong partnership with the Irvington community is integral to student success;
- Understanding, implementing and responding to current trends in technology is intrinsic to success in a 21st century world; In ensuring that the district has a well-trained, highly qualified and competent staff; In maintaining a safe and secure learning environment.

The underlying values and principles that drive our mission and vision are our personal responsibility, a strong work ethic, cooperation, respect for others, honesty, integrity and the firm belief that every child can learn.

Grade: Second		Content: Math
Unit: 1		Time Frame: 43-45 days

New Jersey Learning Standards	Mathematical Practices	Skills
2.OA.A.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. *(benchmarked) **Essential Question(s):** • How can I use addition and subtraction to solve one and two –step word problems? • What strategies and models can we use to understand how to solve an addition or subtraction problem?	MP.1 Make sense of problems and persevere in solving them. MP 2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.8 Look for and express regularity in repeated reasoning.	• Count on and put together to add to solve one- and two-step word problems. • Take from or take apart to subtract to solve one- and two-step word problems. • Use drawings and equations to represent the problem.
2.OA.B.2. Fluently add and subtract within 20 using mental strategies. *By end of Grade 2, know from memory all sums of two one-digit numbers. *(benchmarked)* **Essential Question(s):** • How can mental math strategies help me add and subtract numbers fluently within 20?	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	• Add within 10 using mental strategies with accuracy and efficiency. • Subtract within 10 using mental strategies with accuracy and efficiency.
I Can Statements • I can add and subtract to solve word problems. • I can recall basic math facts from memory.		
2.NBT.A.1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and	MP 2 Reason abstractly and quantitatively.	• 100 can be thought of as a bundle of ten tens — called a *hundred*.

ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
 	
    2.NBT.A.1.a. 100 can be thought of as a bundle of ten tens — called a "hundred."
    2.NBT.A.1.b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
 	
Essential Question(s):
  • How can we represent and compare numbers?
	MP.7 Look for and make use of structure.
	
	    MP.8 Look for and express regularity in repeated reasoning.
		• The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 *tens* and 0 *ones*).
		• Represent 100 as a bundle of ten *tens.*
		• Represent the number of *hundreds*, *tens*, and *ones* in a 3-digit number.

2.NBT.A.2. Count within 1000; skip-count by 5s, 10s, and 100s. *(benchmarked)
 	
Essential Question(s):
  • What patterns do I notice when I count by 1's?
  • What patterns do I notice when I skip count by 5s, 10s, and 100s?
	MP 2 Reason abstractly and quantitatively.
	
	MP.7 Look for and make use of structure.
	
	MP.8 Look for and express regularity in repeated reasoning.
		• Count by fives within 1000.
		• Count by tens within 1000.
		• Count by hundreds within 1000

2.NBT.A.3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. **Essential Question(s):** • How can I read and write numbers using base ten numerals, number names, and expanded form?	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	• Expanded Form • Read numbers to 1000 written using base-ten numerals. • Read number names to 1000. • Read numbers to 1000 written in expanded form. • Write numbers to 1000 using base-ten numerals, number names, and expanded form.

2.NBT.A.4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.
 	
Essential Question(s):
  • How do you know the value of a number?
  • How does the position of a digit in a number affect its value?
	MP 2 Reason abstractly and quantitatively.
	
	MP.6 Attend to precision.
	
	MP.7 Look for and make use of structure.
	
	MP.8 Look for and express regularity in repeated reasoning.
		• Place value
		• Use the number of the hundreds, tens and/or ones digits to compare two three-digit numbers.
		• Write the results of the comparison using >, =, or <.

| 2.NBT.B.8. Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.

Essential Question(s):
• How do predictable patterns help me understand how numbers work when adding and subtracting? | MP 2 Reason abstractly and quantitatively.

MP.7 Look for and make use of structure.

MP.8 Look for and express regularity in repeated reasoning. | • Place value
• Mentally add 10 or 100 from any given number between 100 and 900.
• Mentally subtract 10 or 100 from any given number between 100 and 900. |

I Can Statements
- I can explain three-digit numbers using hundreds, tens, and ones.
- I can explain 100 is a bundle of ten tens.
- I can explain how many hundreds are in multiples of 100
- I can skip-count by 5's within 1000.
- I can skip-count by 10's within 1000.
- I can skip-count by 100's within 1000.
- I can read numbers to 1000.
- I can write numbers to 1000 in different forms.
- I can compare three-digit numbers using symbols.
- I can add 10 to a given number in my head.
- I can add 100 to a given number in my head.
- I can subtract 10 from a given number in my head.
- I can subtract 100 from a given number in my head.

Resources
https://sso.rumba.pk12ls.com/ EnvisionMath • Benchmarks Assessments • Fluency Practice • Vocabulary Review • Topic Assessments	www.mobymax.com www.iready.com www.abcya.com www.khanacedmy.com www.funbrain.com www.splashlearn.com

Differentiated Instruction

(content, process, product and learning environment)	
At Risk Students	**English Language Learners**
Modifications for Classroom Pair visual prompts with verbal presentations Use of lab or experiments to give visual representation of concept Ask students to restate information, directions, and assignments. Work within group or partners Repetition and practice Model skills / techniques to be mastered. Use metacognitive work Extended time to complete class work Provide copy of class notes Student may request to use a computer to complete assignments. Use manipulatives to examine concepts Assign a peer helper in the class setting Provide oral reminders and check student work during independent work time	**Modifications for Classroom** Native Language Translation (peer, online assistive technology, translation device, bilingual dictionary) Preteach vocabulary Use graphic organizers or other visual models Use of manipulatives to visualize concept Highlight key vocabulary-chart or vocabulary bank Use of nonverbal responses (thumbs up/down) Use sentence frames Design questions for different proficiency levels Utilize partners and partner talk
Special Education	**Gifted and Talented**

Modifications for Classroom	**Extension Activities**
Pair visual prompts with verbal presentations	Conduct research and provide presentation of cultural topics.
Use of lab or experiments to give visual representation of concept	Design surveys to generate and analyze data to be used in discussion.
Ask students to restate information, directions, and assignments.	Use of Higher Level Questioning Techniques
Preteach vocabulary	
Repetition and practice	Provide assessments at a higher level of thinking
Model skills / techniques to be mastered.	
Use manipulatives and visual representation to examine Breakdown large assignments into smaller tasks	Create alternative assessment which requires writing, research and presentation
Extended time to complete class work	
Provide copy of class notes	
Preferential seating to be mutually determined by the student and teacher	
Use of online component of book	
Extra textbooks for home. Student may request books on tape / CD / digital media, as available and appropriate.	
Assign a peer helper in the class setting	
Provide oral reminders and check student work during independent work time	
Assist student with long and short term planning of assignments	

Grade: Second	Content: Math
Unit: 2	Time Frame: 43-45 days

New Jersey Learning Standards	Mathematical Practices	Skills
2.OA.A.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. *(benchmarked) **Essential Question(s):** • How can I use addition and subtraction to solve one and two –step word problems? • What strategies and models can we use to understand how to solve an addition or subtraction problem?	MP.1 Make sense of problems and persevere in solving them. MP 2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.8 Look for and express regularity in repeated reasoning.	• Count on and put together to add to solve one- and two-step word problems. • Take from or take apart to subtract to solve one- and two-step word problems. • Use drawings and equations to represent the problem.
2.OA.B.2. Fluently add and subtract within 20 using mental strategies. *By end of Grade 2, know from memory all sums of two one-digit numbers.*(benchmarked) **Essential Question(s):** • How can mental math strategies help me add and subtract numbers fluently within 20?	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	• Add <u>within 10</u> using mental strategies with accuracy and efficiency. • Subtract <u>within 10</u> using mental strategies with accuracy and efficiency.
2.OA.C.3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends **Essential Question(s):** • How can I tell if a group of objects has an odd or even number of members?	MP 2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning	• Even: groups having even numbers of objects will pair up evenly. • Odd: groups having odd numbers of objects will not pair up evenly. • Pair up to 20 object, count by 2s and determine whether the group contains an even or odd number of objects. • Write an equation to express an even number as a sum of two equal addends.

2.OA.C.4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends **Essential Question(s):** • How can I use addition to find the total number of objects in an array?	MP 2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	• Arrays as arrangements of objects. • With objects arranged in an array, use repeated addition to find the total. • With objects arranged in an array, write an equation to express repeated addition.
I Can Statement • I can add and subtract to solve word problems. • I can fluently add and subtract within 20 in my head. • I can recall basic math facts from memory. • I can tell whether a group of objects is odd or even • I can write an equation which shows adding the same two numbers will result in an even number. • I can use addition to find the total of an array. • I can write an equation that represents an array.		
2.G.A.2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. **Essential Question(s):** • How can I draw or identify a shape based off of its number of angles or equal faces?	MP 2 Reason abstractly and quantitatively. MP.6 Attend to precision. MP.8 Look for and express regularity in repeated reasoning.	• Partition a rectangle into rows and columns of same-size squares and count to find the total number.
I Can Statements • I can partition a rectangle into rows and columns of same-size squares and count the total number.		
2.NBT.B.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. *(benchmarked) **Essential Question(s):**	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	• With accuracy and efficiency, add and subtract <u>within 50</u> using strategies based on place value. • With accuracy and efficiency, add and subtract <u>within 50</u> using strategies based on properties of operations. • With accuracy and efficiency, add and

• How can I use strategies to help me add and subtract numbers? • How can models and strategies help me add and subtract larger numbers?		subtract <u>within 50</u> using strategies based on the relationship between addition and subtraction.
2.NBT.B.6. Add up to four two-digit numbers using strategies based on place value and properties of operations. **Essential Question(s):** • What strategies can I use to help me add two or more two-digit numbers? • How can models and strategies help me add and subtract larger numbers?	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	• Add three two digit numbers using place value strategies and properties of operations. • Add four two digit numbers using place value strategies and properties of operations.
2.NBT.B.7. Add and subtract within 1000, 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. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds. **Essential Question(s):** • How can models and strategies help me add and subtract larger numbers? • How does a number change when 10 or 100 is added or subtracted?	MP 2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	• In adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones. • Sometimes it is necessary to compose or decompose tens or hundreds. • Add and subtract within 1000, using concrete models or drawings. • Add and subtract within 1000 using strategies based on place value. • Add and subtract within 1000 using properties of operations or the relationship between addition and subtraction. • Relate the strategies to a written method.
2.NBT.B.9. Explain why addition and subtraction strategies work, using place value and the properties of operations. **Essential Question(s):** • How can I explain why my addition and subtraction strategies work?	MP 2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure.	• Explain, using objects and drawings, why addition and subtraction strategies based on place value work. • Explain, using objects and drawings, why addition and subtraction strategies based on properties of operations work.

	MP.8 Look for and express regularity in repeated reasoning.	
2.NBT.A.2. Count within 1000; skip-count by 5s, 10s, and 100s. *(benchmarked) **Essential Question(s):** • What patterns do I notice when I count by 1's? • What patterns do I notice when I skip count by 5s, 10s, and 100s?	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	• Count within 1000 by ones. • Count within 1000 by fives, tens, and hundreds beginning at any multiple of 5, 10, or 100.

I Can Statements
- I can fluently add and subtract within 100 using my understanding of place value and the properties of addition and subtraction.
- I can add up to four two-digit numbers using my understanding of place value and the properties of addition
- I can add within 1000 using strategies I can explain.
- I can subtract within 1000 using strategies I can explain.
- I can relate addition and subtraction strategies to written methods.
- I can add 10 to a given number in my head. I can add 100 to a given number in my head.
- I can subtract 10 from a given number in my head.
- I can subtract 100 from a given number in my head.
- I can explain why addition strategies work. I can explain why subtraction strategies work.

Resources

https://sso.rumba.pk12ls.com/ EnvisionMath • Benchmarks Assessments • Fluency Practice • Vocabulary Review • Topic Assessments	www.mobymax.com www.iready.com www.abcya.com www.khanacedmy.com www.funbrain.com www.splashlearn.com

Differentiated Instruction	
(content, process, product and learning environment)	
At Risk Students	**English Language Learners**
Modifications for Classroom	**Modifications for Classroom**
Pair visual prompts with verbal presentations	Native Language Translation (peer, online assistive technology, translation device, bilingual dictionary)
Use of lab or experiments to give visual representation of concept	Preteach vocabulary
Ask students to restate information, directions, and assignments.	Use graphic organizers or other visual models
Work within group or partners	Use of manipulatives to visualize concept
Repetition and practice	Highlight key vocabulary-chart or vocabulary bank
Model skills / techniques to be mastered.	Use of nonverbal responses (thumbs up/down)
Use metacognitive work	Use sentence frames
Extended time to complete class work	Design questions for different proficiency levels
Provide copy of class notes	Utilize partners and partner talk
Student may request to use a computer to complete assignments.	
Use manipulatives to examine concepts	
Assign a peer helper in the class setting	
Provide oral reminders and check student work during independent work time	

Special Education	Gifted and Talented
Modifications for Classroom Pair visual prompts with verbal presentations Use of lab or experiments to give visual representation of concept Ask students to restate information, directions, and assignments. Preteach vocabulary Repetition and practice Model skills / techniques to be mastered. Use manipulatives and visual representation to examine Breakdown large assignments into smaller tasks Extended time to complete class work Provide copy of class notes Preferential seating to be mutually determined by the student and teacher Use of online component of book Extra textbooks for home. Student may request books on tape / CD / digital media, as available and appropriate. Assign a peer helper in the class setting Provide oral reminders and check student work during	**Extension Activities** Conduct research and provide presentation of cultural topics. Design surveys to generate and analyze data to be used in discussion. Use of Higher Level Questioning Techniques Provide assessments at a higher level of thinking Create alternative assessment which requires writing, research and presentation

independent work time Assist student with long and short term planning of assignments	

Grade: Second	**Content:** Math
Unit: 3	**Time Frame:** 43-45 days

New Jersey Learning Standards	Mathematical Practices	Skills
2.MD.A.1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. **Essential Question(s):** • How do we measure length?	MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	• Measure lengths of objects using rules, yardsticks, meter sticks and measuring tapes.
2.MD.A.2. Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. **Essential Question(s):** • How can we compare two objects?	MP 2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	• Measure the length of an object using different units of measure. • Compare the measurements and explain how they relate to each unit.
2.MD.A.3. Estimate lengths using units of inches, feet, centimeters, and meters **Essential Question(s):** • How do we know when it is appropriate to estimate or when to measure using appropriate	MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	• Estimate lengths of objects. .

tools?		
2.MD.A.4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. **Essential Question(s):** • How can we compare two objects?	MP.5 Use appropriate tools strategically. MP.6 Attend to precision.	• Measure objects, comparing to determine how much longer one object is than another. • Express the difference in length in terms of a standard unit of measure.
2.MD.B.5. Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem *For example, if Angela needs 30 feet of ribbon for gifts, but she only has 17 feet, number sentences 17 + □ = 30 and 30 - □ = 17 both represent the situation and □ represents the number of feet of ribbon that she still needs.* **Essential Question(s):** • How can I use addition and subtraction strategies to solve word problems?	MP.1 Make sense of problems and persevere in solving them. MP 2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically.	• Add and subtract, within 100, to solve word problems involving lengths (lengths are given in the same units). • Use drawings to represent the problem. • Use number sentences with a symbol for the unknown to represent the problem.
2.MD.B.6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram. **Essential Question(s):** • How can I use addition and subtraction strategies to solve word problems?	MP.4 Model with mathematics. MP 2 Reason abstractly and quantitatively. MP.5 Use appropriate tools strategically.	• Use equally spaced points of a number line to represent whole numbers as lengths from 0. • Represent whole number sums within 100 on a number line diagram. • Represent whole number differences within 100 on a number line diagram.
2.MD.C.7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. **Essential Question(s):** • How do I tell time using an analog clock? • How do I tell time using a digital clock?	MP.5 Use appropriate tools strategically. MP.6 Attend to precision.	• Use analog and digital clocks, tell time to the nearest five minutes using a.m. and p.m. • Use analog and digital clocks, write time to the nearest five minutes using a.m. and p.m.

• When do I use A.M.? • When do I use P.M.?		

I Can Statements

- I can select appropriate tools for measuring length.
- I can measure the length of an object.
- I can measure the length of objects using different length units
- I can describe the relationship of different length units
- I can estimate lengths using inches and feet.
- I can estimate lengths using centimeters and meters.
- I can add to solve word problems that involve length.
- I can subtract to solve word problems that involve length.
- I can add using a number line.
- I can subtract using a number line
- I can tell time to the nearest five minutes.

2.NBT.A.2. Count within 1000; skip-count by 5s, 10s, and 100s. *(benchmarked) **Essential Questions** • What patterns do I notice when I count by 1's? • • What patterns do I notice when I skip count by 5s, 10s, and 100s?	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	• Count within 1000 by ones. • Count within 1000 by fives, tens, and hundreds beginning at any multiple of 5, 10, or 100.
2.NBT.B.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. *(benchmarked) **Essential Question(s);** • How can I use strategies to help me add and subtract numbers? • How can models and strategies help me add and subtract larger numbers?	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	• Place value • Relationship between addition and subtraction • Properties of Operations • Add and subtract within 100 using place value strategies. • Add and subtract within 100 using properties of operations and the relationship between addition and subtraction..

I Can Statements

- I can skip-count by 5's within 1000.

- I can skip-count by 10's within 1000.
- I can skip-count by 100's within 1000.
- I can fluently add and subtract within 100 using my understanding of place value and the properties of addition and subtraction.

Resources

https://sso.rumba.pk12ls.com/ EnvisionMath - Benchmarks Assessments - Fluency Practice - Vocabulary Review - Topic Assessments	*www.mobymax.com* *www.iready.com* *www.abcya.com* *www.khanacedmy.com* *www.funbrain.com* *www.splashlearn.com*

Differentiated Instruction	
(content, process, product and learning environment)	
At Risk Students	**English Language Learners**
Modifications for Classroom	**Modifications for Classroom**
Pair visual prompts with verbal presentations	Native Language Translation (peer, online assistive technology, translation device, bilingual dictionary)
Use of lab or experiments to give visual representation of concept	Preteach vocabulary
Ask students to restate information, directions, and assignments.	Use graphic organizers or other visual models
Work within group or partners	Use of manipulatives to visualize concept
Repetition and practice	Highlight key vocabulary-chart or vocabulary bank
Model skills / techniques to be mastered.	Use of nonverbal responses (thumbs up/down)
Use metacognitive work	Use sentence frames
Extended time to complete class work	Design questions for different proficiency levels
Provide copy of class notes	Utilize partners and partner talk
Student may request to use a computer to complete assignments.	
Use manipulatives to examine concepts	
Assign a peer helper in the class setting	
Provide oral reminders and check student work during independent work time	

Special Education	Gifted and Talented
Modifications for Classroom Pair visual prompts with verbal presentations Use of lab or experiments to give visual representation of concept Ask students to restate information, directions, and assignments. Preteach vocabulary Repetition and practice Model skills / techniques to be mastered. Use manipulatives and visual representation to examine Breakdown large assignments into smaller tasks Extended time to complete class work Provide copy of class notes Preferential seating to be mutually determined by the student and teacher Use of online component of book Extra textbooks for home. Student may request books on tape / CD / digital media, as available and appropriate. Assign a peer helper in the class setting Provide oral reminders and check student work during	**Extension Activities** Conduct research and provide presentation of cultural topics. Design surveys to generate and analyze data to be used in discussion. Use of Higher Level Questioning Techniques Provide assessments at a higher level of thinking Create alternative assessment which requires writing, research and presentation

independent work time Assist student with long and short term planning of assignments	

Grade: 43-45 days	Content: Math
Unit: 4	Time Frame: 43-45 days

New Jersey Learning Standards	Mathematical Practices	Skills
2.G.A.1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. **Essential Question(s):** • How can I draw or identify a shape based off of its number of angles or equal faces? • How can I find the area of a rectangle?	MP 2 Reason abstractly and quantitatively. MP.6 Attend to precision. MP.8 Look for and express regularity in repeated reasoning.	• Draw shapes having specified attributes (e.g. number of equal faces, number of angles) • Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
2.G.A.3. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. **Essential Question(s):** • Why is it important to identify fractions as representations of equal parts of a whole or of a set? • Why is it important to label fractions as representations of equal parts of a whole or of a set?	MP.4 Model with mathematics. MP.7 Look for and make use of structure.	• Equal shares of identical wholes need not have the same shape. • Partition rectangles into two, three, or four equal shares. • Partition two same-sized rectangles to show that equal shares of identical wholes need not have the same shape. • Describe the shares using the words halves, thirds, fourths, half of, a third of, a fourth of, etc. • Recognize and then describe the whole as two halves, three thirds, four fourths.

I Can Statements
• I can identify shapes based on their attributes.
• I can divide circles and rectangles into equal parts.
• I can describe equal parts as part of a whole.
• I can recognize equal shares of identical shapes do not have to be the same shape.

| 2.MD.C.8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ | MP.1 Make sense of problems and persevere in solving them. | • Know the value of dollar bills, quarters, dimes, nickels, and pennies. |

symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?* **Essential Question(s):** • What is a penny, nickel, dime, and quarter worth? How much is a dollar bill worth? • How does skip counting help us count money? • What does the $ and ¢ symbols mean? • How are they used?	MP 2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.8 Look for and express regularity in repeated reasoning.	• Identify dollar bills, quarters, dimes, nickels, and pennies. • Using dollar bills, quarters, dimes, nickels, and pennies, count to determine the total amount of money. • Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies.
2.MD.D.9. Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units. **Essential Question(s):** • How can I organize data into a table? • How can I use a table to make a line plot? • How can I organize my data into a picture graph? • How can I organize my data into a bar graph? • How can I show my measurement data on a line plot?	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.8 Look for and express regularity in repeated reasoning.	• Generate data. • Generate measurement data by measuring lengths, to the nearest whole unit, of several objects or by making repeated measurements of the same object. • Record the measurements in a line plot having a horizontal scale in whole number units.
2.MD.D.10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems using information presented in a bar graph. **Essential Question(s):** • How can bar graphs and pictographs be used to s how data and answer questions?	MP.1 Make sense of problems and persevere in solving them. MP 2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.8 Look for and express regularity in repeated reasoning.	• Draw a picture graph to represent a data set with up to four categories. • Draw a bar graph to represent a data set with up to four categories. • Use information in a bar graph to solve simple put together, take apart, and compare problems.
I Can Statements • I can solve word problems involving money. • I can use the $ and ¢ symbols.		

• I can collect data by measuring lengths. • I can make a line plot to show data. • I can draw a picture graph. I can draw a bar graph. • I can solve problems using a bar graph.		
2.OA.B.2. Fluently add and subtract within 20 using mental strategies. *By end of Grade 2, know from memory all sums of two one-digit numbers.* *(benchmarked)* **Essential Question(s):** • How can mental math strategies help me add and subtract numbers fluently within 20?	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	• Add within 20 using mental strategies with accuracy and efficiency. • Subtract within 20 using mental strategies with accuracy and efficiency.
I Can Statements • I can fluently add and subtract within 20 in my head. • I can recall basic math facts from memory.		
2.NBT.B.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. *(benchmarked)* **Essential Question(s):** • How can I use strategies to help me add and subtract numbers? • How can models and strategies help me add and subtract larger numbers?	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	• With accuracy and efficiency, add and subtract within 100 using place value strategies, properties of operations and/or the relationship between addition and subtraction.

I Can Statements
• I can fluently add and subtract within 100 using my understanding of place value and the properties of addition and subtraction.

Resources

https://sso.rumba.pk12ls.com/ EnvisionMath • Benchmarks Assessments	www.mobymax.com www.iready.com www.abcya.com www.khanacedmy.com

• Fluency Practice • Vocabulary Review • Topic Assessments	*www.funbrain.com* *www.splashlearn.com*

Differentiated Instruction *(content, process, product and learning environment)*	
At Risk Students	**English Language Learners**
<u>**Modifications for Classroom**</u> Pair visual prompts with verbal presentations Use of lab or experiments to give visual representation of concept Ask students to restate information, directions, and assignments. Work within group or partners Repetition and practice Model skills / techniques to be mastered. Use metacognitive work Extended time to complete class work Provide copy of class notes Student may request to use a computer to complete assignments. Use manipulatives to examine concepts	<u>**Modifications for Classroom**</u> Native Language Translation (peer, online assistive technology, translation device, bilingual dictionary) Preteach vocabulary Use graphic organizers or other visual models Use of manipulatives to visualize concept Highlight key vocabulary-chart or vocabulary bank Use of nonverbal responses (thumbs up/down) Use sentence frames Design questions for different proficiency levels Utilize partners and partner talk

Assign a peer helper in the class setting Provide oral reminders and check student work during independent work time	

Special Education	Gifted and Talented
<u>Modifications for Classroom</u> Pair visual prompts with verbal presentations Use of lab or experiments to give visual representation of concept Ask students to restate information, directions, and assignments. Preteach vocabulary Repetition and practice Model skills / techniques to be mastered. Use manipulatives and visual representation to examine Breakdown large assignments into smaller tasks Extended time to complete class work Provide copy of class notes Preferential seating to be mutually determined by the student and teacher Use of online component of book	**Extension Activities** Conduct research and provide presentation of cultural topics. Design surveys to generate and analyze data to be used in discussion. Use of Higher Level Questioning Techniques Provide assessments at a higher level of thinking Create alternative assessment which requires writing, research and presentation

Extra textbooks for home. Student may request books on tape / CD / digital media, as available and appropriate. Assign a peer helper in the class setting Provide oral reminders and check student work during independent work time Assist student with long and short term planning of assignments	