Trinity Area School District
Template for Curriculum Mapping

Course: Math **Grade: 2** **Designer(s): Math Committee**	**Overview of Course** (Briefly describe what students should understand and be able to do as a result of engaging in this course)**:** Students will understand whole numbers, addition, subtraction, geometry, fractions, and measurement and be able to solve real world problems using these concepts and procedures.

Overarching Big Ideas, Enduring Understandings, and Essential Questions
(These "spiral" throughout the entire curriculum.)

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.

Big Idea (A Big Idea is typically a noun and always transferable within and among content areas.)	**Standard(s) Addressed** (What Common Core Standard(s) and/or PA Standard(s) addresses this Big Idea?) Blue Print – Pennsylvania Common Core Standards Red Print – National Common Core Standards	**Enduring Understanding(s)** (SAS refers to Enduring Understandings as "Big Ideas." EUs are the understandings we want students to carry with them after they graduate. EUs will link Big Ideas together. Consider having only one or two EUs per Big Idea.) Orange Print – Student Friendly Enduring Understanding Statements	**Essential Question(s)** (Essential Questions are broad and open ended. Sometimes, EQs can be debated. A student's answer to an EQ will help teachers determine if he/she truly understands. Consider having only one or two EQs per Enduring Understanding.)
Discovery	CC.2.2.2.A.1 Represent and solve problems involving addition and subtraction within 100. 2.OA.1 Represent and solve problems involving addition and subtraction. *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,	Addition and subtraction have an inverse relationship. The inverse relationship between addition and subtraction can be used to find subtraction facts; every subtraction fact has a related addition fact. *Discovery helps us to learn new ideas. * Every subtraction fact has a related addition fact.	How can you write related addition and subtraction facts? How can you use a picture to help you solve a problem?

	with unknowns in all positions. Example – by using drawings and equations with a symbol for the unknown number to represent the problem		
Patterns	CC2.2.2.A.2 Use mental strategies to add and subtract within 20. 2.OA.2 *Fluently add and subtract within 20 using mental strategies. By the end of grade 2, know from memory all sums of two one-digit numbers.	Relationships can be described and generalizations made for mathematical situations that have numbers or objects that repeat in predictable ways. *When you are practicing your math facts you will notice patterns that will help you remember the sums.	What are the different ways to learn and remember facts?
Patterns	CC.2.2.2.A.3, 2.OA.3 Work with equal groups of objects to gain foundations for multiplication: *Determine whether a group of objects (up to 20) has an odd or even number of members. Example: By pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.	Some numbers can be divided into two equal parts (even numbers) and some cannot (odd numbers). * When you are working with a group of objects sometimes you can separate those objects into two groups with the same amount of objects in each group. If you can do this the number of objects you used is an even number. Sometimes one of the two groups will have one more object than the other. This makes the number of objects you were working with an odd number.	How do you know if a number is even or odd?
Systems	2.OA.4 Work with equal groups of objects to gain foundations for multiplication: *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.	An array involves joining equal groups and is one way to think about multiplication. *Systems are made of smaller parts that make up the whole. * When you are working with even numbers of objects sometimes you can separate them into several groups of the same number of objects. Ex Twenty-five objects can be separated into 5 groups with 5 objects in each group.	How can an array be used to help write an equation that expresses the sum as the addition of the equal addends?
Base-Ten Numeration	CC2.1.2.B.1 Use place value concepts to represent amounts of tens and ones and to compare three digit numbers. 2.NBT.1 Number and Operations in Base Ten	Numbers can be used to tell how many. Our number system is based on groups of ten. Whenever we get 10 in one place value, we move to the next greater place value.	How can a number be shown using hundreds, tens, and ones place-value models?

	Understand place value. *Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; Example: 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: a. 100 can be thought of as a bundle of ten tens – called a "hundred." 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).		
Representation	CC.2.1.2.B.2 Use place value concepts to read, write, and skip count to 1000. 2,NBT.2 Number and Operations in Base Ten *Count within 1000; skip-count by 5s, 10s, and 100s.	Numbers can be classified and represented in different ways. *When counting to 1000 you can count in different ways. You can skip count to 1000 by 5s, 10s, and 100s.	What visual patterns and number patterns can be made by skip counting? How can you use skip counting to find a total number of objects?
Representation	CC.2.1.2.B.3 Use place value understanding and properties of operations to add and subtract within 1000. 2.NBT.3 Number and Operations in Base Ten *Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	Numbers can be written in different ways including using words and their expanded form.	How can you write numbers up to 1000 in different ways?
Symbols	2.NBT.4 Number and Operations in Base Ten *Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, < symbols to record the results of comparisons.	Place value can be used to compare and order numbers.	How does understanding place value help you compare three-digit numbers? How can you use symbols to compare the value of two three-digit numbers?
Strategies	CC.2.2.2.A.1 Operations and Algebraic Thinking Represent and solve problems involving addition and subtraction within 100. 2.NBT.5 Number and Operations in Base Ten Use place value understanding and properties of operations to add and subtract. *Fluently add and subtract within 100 using strategies based on place value, properties of	Doing mathematics involves a variety of processes including problem solving, reasoning, communicating, and representing.	How do you decide what strategies to use to solve addition and subtraction problems within 100?

	operations, and/or the relationship between addition and subtraction.		
Strategies	2.NBT.6 Number and Operations in Base Ten Use place value understanding and properties of operations to add and subtract. * Add up to four two-digit numbers using strategies based on place value and properties of operations.	Four numbers can be grouped and added in any order. You can use your knowledge of place value and properties of operations to solve such problems.	Can you add four numbers in any order?
Discovery	2.NBT.7 Number and Operations in Base Ten Use place value understanding and properties of operations to add and subtract. *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.	Concrete models can be used to demonstrate adding and subtracting numbers within 1000. When adding within 1000 sometimes one must compose (put together) or decompose (taken apart) tens and hundreds.	How can you use models to demonstrate adding and subtracting within 1000? How can you demonstrate the composition or decomposition of tens and hundreds when needed?
Connections	2.NBT.8 Number and Operations in Base Ten Use place value understanding and properties of operations to add and subtract. * Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.	Adding tens and hundreds is like adding ones.	When adding tens and hundreds how does the tens digit or hundreds digit change?
Properties	2.NBT.9 Number and Operations in Base Ten Use place value understanding and properties of operations to add and subtract. *Explain why addition and subtraction strategies work, using place value and the properties of operations.	The base-ten numeration system is a scheme for recording numbers using digits 0-9, groups of ten, and place value.	How can you use place value and the properties of operations to explain how to solve addition and subtraction problems? Why do the strategies work?
Length	CC.2.4.2.A.1 Measurement and Data Measure and estimate lengths in standard units using appropriate tools.	The length of some objects is measurable.	How can you measure the length of an object? What tools will you use to measure the length

	2. MD.1 Measurement and Data Measure and estimate lengths in standard units. * Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.		of various objects?
Units of Measurement	2. MD.2 Measurement and Data * 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.	The length of objects can be measured using different units (smaller parts) of measurement.	How can you measure an object using different units of measurement? Show me how to measure an object using different tools.
Estimate	2. MD.3 Measurement and Data * Estimate lengths using units of inches, feet, centimeters, and meters.	The length of any object can be used as a measurement unit for length, but a standard unit is always the same length.	How can you estimate the length of an object in inches, feet, yards, centimeters, and meters? What does it mean to estimate?
Compare	2. MD.4 Measurement and Data * Measure to determine how much longer one object is than another expressing the length difference in terms of a standard length unit.	The length of one object can be compared to the length of another object.	How can you determine how much longer one object is than another?
Problem Solve	CC.2.4.2.A.6 Extend the concepts of addition and subtraction to problems involving length. 2 .MD.5 Measurement and Data Relate addition and subtraction to length. *Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units. Example – By using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.	Word problems can include lengths. You can add and subtract using units of measurement.	What can you use to help solve word problems involving length?
Diagram	2 .MD.6 Measure and Data Relate addition and subtraction to length. * 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	Lengths, just like whole numbers, can be displayed on a number line. That number line can be used to find the sums and differences when adding and subtracting lengths.	How can you create a number line that displays lengths?

	diagram.		
Time	CC2.4.2.A.2 Tell and write time to the nearest five minutes using both analog and digital clocks. 2. MD .7Measurement and Data Work with time and money. *Tell and write time from analog and digital clocks to the nearest five minutes, using a.m., and p.m.	Time to the hour can be shown on an analog clock (clock with hands) or on a digital clock (clock with numbers) and can be written in different ways. Time can be written to the nearest five minutes using a.m. and p.m.	What are the different ways you can write and see times on clocks? How do you tell and write time to the nearest five minutes?
Money	CC.2.4.2.A.3 Solve problems using coins and paper currency with appropriate symbols. 2. MD.8 Measure and Data Work with time and money. * Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and cent symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?	Money amounts can usually be counted in different ways.	How can you find the value of a set of mixed coins? How can you find the value of a combination of a dollar bill and coins?
Representation	2. MD.9 Measure and Data Represent and Interpret data. * 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.	Graphs can be used to represent (show) and interpret (figure out) data.	How can you represent and interpret data using a line plot?
Representation	CC.2.4.2.A.4 Represent and interpret data using line plots, picture graphs, and bar graphs. 2. MD.10 Measure and Data Represent and interpret data. * 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.	Information can be displayed on different types of graphs to help you see and interpret (figure out) data.	How can you display data on a graph and use that graph to solve addition and subtraction problems? What types of graph can you create?
Explore	CC.2.3.2.A.1 Geometry - Analyze and draw two- and three- dimensional shapes having specified	Three-dimensional or solid figures have attributes and can be identified by those	Using the attributes, how can you create different shapes?

	attributes. 2. G .1Geometry Reason with shapes and their attributes. * 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.	attributes. * Each solid figure looks different. You can figure out how they are different by looking at the number of flat surfaces, points, and sides they each have.	
Discovery	2. G .2Geometry * Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	Rectangles can be partitioned (split apart) off into smaller, equal pieces.	How can you cut a rectangle into smaller, equal pieces? Show me!
Equal Shares	CC.2.3.2.A.2 Geometry Use the understanding of fractions to partition shapes into halves, quarters, and thirds. 2. G.3 Geometry * 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.	Some shapes can be decomposed (broken up) into other shapes. Parts of shapes can be called by different names.	How can cutting larger shapes make new smaller shapes?

Big Ideas, Enduring Understandings, and Essential Questions Per Unit of Study

(These do NOT "spiral" throughout the entire curriculum, but are specific to each unit.)

Month of Instruction (In what month(s) will you teach this unit?)	**Title of Unit**	**Big Idea(s)** (A Big Idea is typically a noun and always transferable within and among content areas.)	**Standard(s) Addressed** (What Common Core Standard(s) and/or PA Standard(s) address this Big Idea?)	**Enduring Understanding(s)** (SAS refers to Enduring Understandings as "Big Ideas." EUs are the understandings we want students to carry with them after they graduate. EUs will link Big Ideas together.	**Essential Question(s)** (Essential Questions are broad and open ended. Sometimes, EQs can be debated. A student's answer to an EQ will help teachers determine if he/she truly understands.	**Common Assessment(s)*** (What assessments will all teachers of this unit use to determine if students have answered the Essential Questions?)	**Common Resource(s)* Used** (What resources will all teachers of this unit use to help students understand the Big Ideas?)

				Consider having only one or two EUs per Big Idea.)	Consider having only one or two EQs per Enduring Understanding.)		
August/September/Oct	**Addition and Subtraction Understanding and Strategies**	Discovery	CC.2.2.2.A.1 Represent and solve problems involving addition and subtraction within 100. 2.OA.1 Represent and solve problems involving addition and subtraction. *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. Example – by using drawings and equations with a symbol for the unknown number to represent the problem	Addition and subtraction have an inverse relationship. The inverse relationship between addition and subtraction can be used to find subtraction facts; every subtraction fact has a related addition fact. *Discovery helps us to learn new ideas. * Every subtraction fact has a related addition fact.	How can you write related addition and subtraction facts? How can you use a picture to help you solve a problem?		**Topics 1, 2, 3 (Not exclusively and not all lessons need to be used) Technology (ex. Hooda Math)**
Oct	**Working with Equal Groups**	Patterns Systems	CC.2.2.2.A.3, 2.OA.3 Work with equal groups of objects to gain foundations for multiplication:	Some numbers can be divided into two equal parts (even numbers) and some cannot (odd numbers).	How do you know if a number is even or odd? How can an array be used to help write an	**Quarterly Test After Topic 4**	**Topic 4 (Not exclusively and not all lessons need to be used) Technology (ex.**

			*Determine whether a group of objects (up to 20) has an odd or even number of members. Example: By pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends. 2.OA.4 Work with equal groups of objects to gain foundations for multiplication: *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.	* When you are working with a group of objects sometimes you can separate those objects into two groups with the same amount of objects in each group. If you can do this the number of objects you used is an even number. Sometimes one of the two groups will have one more object than the other. This makes the number of objects you were working with an odd number. An array involves joining equal groups and is one way to think about multiplication. *Systems are made of smaller parts that make up the whole. * When you are working with even numbers of objects sometimes you can separate them into several groups of the same number of objects. Ex Twenty-five objects can be separated into 5 groups with 5 objects in each group.	equation that expresses the sum as the addition of the equal addends?		**Hooda Math)**
Oct/Nov/Dec	**Place Value to**	Represent	CC.2.1.2.B.2 Use place value concepts to read,	Numbers can be used to tell how many. Our	How can a number be shown using		**Topic 5, Topic 10(Not exclusively**

	100	Numeration Symbols	write, and skip count to 1000. 2,NBT.2 Number and Operations in Base Ten *Count within 1000; skip-count by 5s, 10s, and 100s. CC.2.1.2.B.3 Use place value understanding and properties of operations to add and subtract within 1000. 2.NBT.3 Number and Operations in Base Ten *Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. CC2.1.2.B.1 Use place value concepts to represent amounts of tens and ones and to compare three digit numbers. 2.NBT.1 Number and Operations in Base Ten Understand place value. *Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; Example: 706 equal 7	number system is based on groups of ten. Whenever we get 10 in one place value, we move to the next greater place value. Numbers can be classified and represented in different ways. *When counting to 1000 you can count in different ways. You can skip count to 1000 by 5s, 10s, and 100s. Numbers can be written in different ways including using words and their expanded form. Numbers can be used to tell how many. Our number system is based on groups of ten. Whenever we get 10 in one place value, we move to the next greater place value. Place value can be used to compare and order numbers.	hundreds, tens, and ones place-value models? What visual patterns and number patterns can be made by skip counting? How can you use skip counting to find a total number of objects? How can you write numbers up to 1000 in different ways? How can a number be shown using hundreds, tens, and ones place-value models? How does understanding place value help you compare three-digit numbers? How can you use symbols to compare the value of two three-digit numbers?		**and not all lessons need to be used)** **Technology (ex. Hooda Math)**

			hundreds, 0 tens, and 6 ones. Understand the following as special cases: a. 100 can be thought of as a bundle of ten tens – called a "hundred." 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). 2.NBT.4 Number and Operations in Base Ten *Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, < symbols to record the results of comparisons.				
Nov/Jan	**Mental Addition and Subtraction and Adding and Subtracting Two-Digit numbers**	Strategies Connections Properties	CC.2.2.2.A.1 Operations and Algebraic Thinking Represent and solve problems involving addition and subtraction within 100. 2.NBT.5 Number and Operations in Base Ten Use place value understanding and properties of operations to add and	Doing mathematics involves a variety of processes including problem solving, reasoning, communicating, and representing. Four numbers can be grouped and added in any order. You can use your knowledge of place	How do you decide what strategies to use to solve addition and subtraction problems within 100? Can you add four numbers in any order? How can you use models to demonstrate adding	**Quarterly Test After Topic 8**	**Topics 6, 7, 8, and 9. (Not exclusively and not all lessons need to be used) Technology (ex. Hooda Math**

			subtract. *Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.6 Number and Operations in Base Ten Use place value understanding and properties of operations to add and subtract. * Add up to four two-digit numbers using strategies b2.NBT.7 Number and Operations in Base Ten Use place value understanding and properties of operations to add and subtract. *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	value and properties of operations to solve such problems. Concrete models can be used to demonstrate adding and subtracting numbers within 1000. When adding within 1000 sometimes one must compose (put together) or decompose (taken apart) tens and hundreds. Adding tens and hundreds is like adding ones. The base-ten numeration system is a scheme for recording numbers using digits 0-9, groups of ten, and place value.	and subtracting within 1000? How can you demonstrate the composition or decomposition of tens and hundreds when needed? When adding tens and hundreds how does the tens digit or hundreds digit change? How can you use place value and the properties of operations to explain how to solve addition and subtraction problems? Why do the strategies work?		

			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 and tens or hundreds. 2.NBT.8 Number and Operations in Base Ten Use place value understanding and properties of operations to add and subtract. * Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900. 2.NBT.9 Number and Operations in Base Ten Use place value understanding and properties of				

			operations to add and subtract. *Explain why addition and subtraction strategies work, using place value and the properties of operations.				
Feb	**Geometry**	Explore, Discovery, Equal Shares	CC.2.3.2.A.1 Geometry - Analyze and draw two- and three- dimensional shapes having specified attributes. 2. G .1Geometry Reason with shapes and their attributes. * 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. 2. G .2Geometry * Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. CC.2.3.2.A.2 Geometry Use the understanding of fractions to partition	Three-dimensional or solid figures have attributes and can be identified by those attributes. * Each solid figure looks different. You can figure out how they are different by looking at the number of flat surfaces, points, and sides they each have. Rectangles can be partitioned (split apart) off into smaller, equal pieces. Some shapes can be decomposed (broken up) into other shapes. Parts of shapes can be called by different names.	Using the attributes, how can you create different shapes? Rectangles can be partitioned (split apart) off into smaller, equal pieces. Some shapes can be decomposed (broken up) into other shapes. Parts of shapes can be called by different names.	**Quarterly Test After Topic 12**	**Topic 12 (Not exclusively and not all lessons need to be used) Technology (ex. Hooda Math**

			shapes into halves, quarters, and thirds. 2. G.3 Geometry * 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.				
March/April	**Money – Finding the value of mixed coins and a dollar bill with mixed coins**	Money Time Units of Measurement Estimate Compare Problem Solve	CC.2.4.2.A.3 Solve problems using coins and paper currency with appropriate symbols. 2. MD.8 Measure and Data Work with time and money. * Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and cent symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you	Money amounts can usually be counted in different ways.	How can you find the value of a set of mixed coins? How can you find the value of a combination of a dollar bill and coins?	**Topic Tests**	**Topics 13 & 14 (Not exclusively and not all lessons need to be used) Technology (ex. Hooda Math**

			have?				
May	**Measuring Length**	Units of Measurement Estimate Compare Problem Solve	CC.2.4.2.A.1 Measurement and Data Measure and estimate lengths in standard units using appropriate tools. 2. MD.1 Measurement and Data Measure and estimate lengths in standard units. * Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. . MD.2 Measurement and Data * 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 2. MD.3 Measurement and Data * Estimate lengths using units of inches, feet, centimeters, and meters.	The length of some objects is measurable. The length of objects can be measured using different units (smaller parts) of measurement. The length of any object can be used as a measurement unit for length, but a standard unit is always the same length. The length of any object can be used as a measurement unit for length, but a standard unit is always the same length The length of one object can be compared to the length of another object. Word problems can include lengths. You can add and subtract using units of measurement. Lengths, just like whole numbers, can be displayed on a number line. That number line can be used to find the sums and differences when adding and subtracting lengths.	How can you measure the length of an object? What tools will you use to measure the length of various objects? How can you measure an object using different units of measurement? Show me how to measure an object using different tools. How can you estimate the length of an object in inches, feet, yards, centimeters, and meters? What does it mean to estimate? How can you determine how much longer one object is than another? What can you use to help solve word problems involving		**Topic 15 (Not exclusively and not all lessons need to be used) Technology (ex. Hooda Math**

			2. MD.4 Measurement and Data * Measure to determine how much longer one object is than another expressing the length difference in terms of a standard length unit. CC.2.4.2.A.6 Extend the concepts of addition and subtraction to problems involving length. 2 .MD.5 Measurement and Data Relate addition and subtraction to length. *Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units. Example – By using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem 2 .MD.6 Measure and Data Relate addition and subtraction to length. * Represent whole-	Word problems can include lengths. You can add and subtract using units of measurement Lengths, just like whole numbers, can be displayed on a number line. That number line can be used to find the sums and differences when adding and subtracting lengths.	length? How can you create a number line that displays lengths?		

			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.				
Aug. - May	**Fluently add and subtract within 20**	**Retain**	CC2.2.2.A.2 Use mental strategies to add and subtract within 20. 2.OA.2 *Fluently add and subtract within 20 using mental strategies. By the end of grade 2, know from memory all sums of two one-digit numbers.	Relationships can be described and generalizations made for mathematical situations that have numbers or objects that repeat in predictable ways. *When you are practicing your math facts you will notice patterns that will help you remember the sums.	What are the different ways to learn and remember facts?	**Timed Tests**	**Topic 1 resources** **Technology (ex. Hooda Math)** **Fact Family Triangles**
May	**Time, Graphs, and Data**	**Representation** **Diagram**	CC2.4.2.A.2 Tell and write time to the nearest five minutes using both analog and digital clocks. 2. MD .7Measurement and Data Work with time and money. *Tell and write time from analog and digital clocks to the nearest five minutes, using a.m.,	Time to the hour can be shown on an analog clock (clock with hands) or on a digital clock (clock with numbers) and can be written in different ways. Time can be written to the nearest five minutes	What are the different ways you can write and see times on clocks? How do you tell and write time to the nearest five minutes?		**Topic 16** **(Not exclusively and not all lessons need to be used)** **Technology (ex. Hooda Math**

			and p.m. 2. MD.9 Measure and Data Represent and Interpret data. * 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 CC.2.4.2.A.4 Represent and interpret data using line plots, picture graphs, and bar graphs. 2. MD.10 Measure and Data Represent and interpret data. * 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 a.m. and p.m. Graphs can be used to represent (show) and interpret (figure out) data. Information can be displayed on different types of graphs to help you see and interpret (figure out) data.	How can you represent and interpret data using a line plot? How can you display data on a graph and use that graph to solve addition and subtraction problems? What types of graph can you create?		

			using information presented in a bar graph.				

* Some teachers may need to think about the assessments and resources used in order to determine the Big Ideas, Enduring Understandings, and Essential Questions embedded in their courses. At this point in your curriculum mapping, you might want to ignore the “Common Assessments” and “Common Resources Used” columns. However, you may use them if you wish.