Grade, Subject/Course: 2nd Grade, Mathematics	
Unit: Module 1: Sums and Differences to 100	**__X___ Essential _____ Important _____ Compact**
Big Idea: A real-world situation can be represented by a number sentence that uses the base-ten numeration system.	**Standards of Mathematical Practice:** MP.2 Reason abstractly and quantitatively. 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.
PA Core Content Standards/Anchors (or National Standards): **CC.2.2.2.A.1** Represent and solve problems involving addition and subtraction within 100. **CC.2.2.2.A.2** Use mental strategies to add and subtract within 20. **CC.2.1.1.B.3** Use place value understanding and properties of operations to add and subtract within 1000.	**Interdisciplinary Standards (if applicable):**
Essential Questions: ● How does the relationship between place value and properties of operations help us to solve mathematical problems? ● How does knowing and understanding the form of a number help us make sense of real world situations? ● How does composing and decomposing numbers allow us to make sense and use the world of numbers? ● Why would mental strategies be used to add and subtract?	**Understandings:** Students will know that… ● Adding and subtracting numbers results in new quantities. ● Any addition problem will have a related subtraction problem. ● The evaluation of a real-world situation can determine which operation should be used to solve a problem. ● Numbers may be given a new value from regrouping when adding and subtracting to 100. ● Mentally adding and subtracting helps when problem solving and evaluating the reasonableness of the answer.

Knowledge:	**Do/Skills:**
Count on Make ten Take from ten Number Sentence Number Bond	Students will be able to… ● 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. ● Demonstrate addition/subtraction fact fluency to 20. ● Regrouping/renaming with addition and subtraction. ● Explain why addition/subtraction strategies work, using place value and properties of operations.
Vocabulary: Digit Ones Tens Hundreds Decomposing Composing Addend Sum Expression	**Core Resources:** Eureka Math Teacher Editions(Great Minds) Eureka Math Student Workbooks
Common Assessment(s): G2M1 End-of-Module Assessment	**Supplemental Resources:** Zearn (free website that gives additional reteaching of Eureka lessons)

Grade, Subject/Course: 2nd Grade, Mathematics	
Unit: Module 2: Addition and Subtraction of Length Units	**__X___ Essential _____ Important _____ Compact**
Big Idea: Some attributes of objects are measurable and can be quantified using unit amounts.	**Standards of Mathematical Practice:** 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.
PA Core Content Standards/Anchors (or National Standards): CC.2.4.2.A.1- Measure and estimate length in standard units using appropriate tools. CC.2.4.2.A.6- Extend the concepts of addition and subtraction to problem involving length.	**Interdisciplinary Standards (if applicable):**
Essential Questions: How does identifying and using different units of measurement help us define lengths of objects? How is the conceptual knowledge of measurement used to problem solve? How is addition and subtraction related to length?	**Understandings:** Students will know that… ● Appropriate tools are used to measure different lengths. ● The longer the unit of measure, the fewer units it takes to measure the object. ● Linear measurement tools are number lines (ruler, yardstick, meter stick, measuring tape) Like units of measurement can be added and subtracted
Knowledge: Measuring Using Standard units Measurement tools Estimation Use of a Number line	**Do/Skills:** Students will be able to… ● Use a ruler, yardstick, meter stick, or measuring tape starting with zero. Identify the different measurement units. ● Identify appropriate units to measure a given object. ● Compare the lengths of two different objects. ● Estimate the length of an object using inches, feet, centimeters and meters. ● Use addition and subtraction within 100 to solve word problems involving lengths of the same unit. ● Use the inverse operation to find unknown measurements in equations.

Vocabulary: Benchmark Endpoint Estimate Hash mark Meter Overlap Combine Compare Difference Length Height Centimeter	**Core Resources:** Eureka Math Teacher Edition (Great Minds) Eureka Math Workbooks
Common Assessment(s): G2M2 Topic A/B Quiz G2M2 End-of-Module Assessment	**Supplemental Resources:** Zearn (free website that gives additional reteaching of Eureka lessons)

Grade, Subject/Course: 2nd Grade, Mathematics	
Unit: Module 3: Place Value, Counting, and Comparison of Numbers to 1000	**__X__ Essential _____ Important _____ Compact**
Big Idea: The base-ten numeration system is a scheme for recording numbers using digits 0-9, groups of tens, and place value.	**Standards of Mathematical Practice:** MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.
PA Core Content Standards/Anchors (or National Standards): CC.2.1.2.B.1 Use place value concepts to represent amounts of tens and ones and to compare three digit numbers. CC.2.1.2.B.2 Use place value concepts to read, write and skip count to 1000. CC.2.1.2.B.3 Use place value understanding and properties of operations to add and subtract within 1000.	**Interdisciplinary Standards (if applicable):**
Essential Questions: ● How does comparing and ordering make sense of number values and why is this useful? ● How does the relationship between place value and properties of operations help us to solve mathematical problems? ● How do patterns help us make sense of and compare number values?	**Understandings:** Students will know that… ● Numbers have a specific order and value. ● Objects and words can be used to represent equivalent numbers. ● The order and placement of a digit in a number determines its value. ● Numbers can be compared using words and symbols.

Knowledge:	**Do/Skills:**
● Greater than ● Less than ● Equal to ● Place value ● How many more ● How many are left ● Base ten numerals ● Expanded form ● Standard form ● Unit form ● Word form	Students will be able to… ● Order numbers from least to greatest and greatest to least ● Compare numbers ● Show numbers using concrete objects ● Use symbols of Greater Than and Less Than ● Grouping to make larger numbers (ten tens = 100) ● Read and write numbers to 1,000(base-ten numerals, number names, expanded form) Skip count by 2's, 5's, 10's, and 100's(up to 1,000)
Vocabulary: ● Renaming ● Ones, tens, hundreds, thousands ● Bundling ● Place value disks ● Compare ● Number sentence	**Core Resources:** Eureka Math Teacher's Edition (Great Minds) Eureka Student Workbooks
Common Assessment(s): G2M3 Topic A/B Quiz G2M3 Topic C/D Quiz G2M3 Topic E Quiz G2M3 Topic F/G Quiz G2M3 End-of-Module Assessment	**Supplemental Resources:** Zearn (free website that gives additional reteaching of Eureka lessons)

Grade, Subject/Course: 2nd Grade, Mathematics	
Unit: Module 4: Addition and Subtraction within 200 and Word Problems to 100	**__X__ Essential _____ Important _____ Compact**
Big Idea: 1. The same number sentence (e.g. 12-4=8) can be associated with different concrete or real-world situations and different number sentences can be associated with the same concrete or real world situations. 2. The base-ten numeration system is a scheme for recording numbers using digits 0-9, groups of ten, and place value.	**Standards of Mathematical Practices** 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.6 Attend to precision.
PA Core Content Standards/Anchors (or National Standards): **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. **2.NBT.B.6 -** Add up to four two-digit numbers using strategies based on place value 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. **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. **2.NBT.B.9 -** Explain why addition and subtraction strategies work, using place value and the properties of operations. **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.	**Interdisciplinary Standards (if applicable):**
Essential Questions: How does composing and decomposing numbers allow us to make sense of and use the world of numbers? How does the relationship between place value and properties of operations help us to solve mathematical problems?	**Understandings:** Students will know that… ● Adding and subtracting numbers results in new quantities. ● Any addition problem will have a related subtraction problem. ● The evaluation of a real-world situation can determine which

<table>
<tr>
<td>How does knowing and understanding the form of a number help us make sense of real world situations?</td>
<td>operation should be used to solve the problem.
● Numbers may be given a new value from regrouping when adding and subtracting to 200.
● When adding and subtracting three-digit numbers start with the ones column; sometimes it is necessary to compose or decompose tens or hundreds.</td>
</tr>
<tr>
<td><u>Knowledge:</u>
● Algorithms
● Composing
● Decomposing
● Equation
● New Groups Below
● Simplifying strategy
● Totals below
● Expression vs Equation
● Number sentence</td>
<td><u>Do/Skills</u>:
Students will be able to…
● 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.
● Regroup/rename with addition and subtraction
● Mentally add/subtract 10 or 100 to a given number
● Add up to 4, 2-digit numbers.
● Explain why addition/subtraction strategies work, using place value and properties of operation.
● Solve two-step problems within 100.</td>
</tr>
<tr>
<td><u>Vocabulary:</u>
Addend, addition, bundle, unbundle, regroup, rename, change(compose or decompose a 10 or 100), difference, hundreds place, place value, subtraction, ones, hundreds, thousands</td>
<td><u>Core Resources</u>:

Eureka Math Teacher’s Edition (Great Minds)

Eureka Math Student Workbooks</td>
</tr>
<tr>
<td><u>Common Assessment(s):</u>
G2M4 Topic A/B Quiz
G2M4 Topic C Quiz
G2M4 Topic D Quiz
G2M4 Topic E Quiz
G2M4 End-of-Module Assessment</td>
<td><u>Supplemental Resources:</u>

Zearn (free website that gives additional reteaching of Eureka lessons)</td>
</tr>
</table>

Grade, Subject/Course: 2nd Grade, Mathmatics	
Unit: Module 5: Addition and Subtraction within 1000 with Word Problems to 100.	**__X__ Essential _____ Important _____ Compact**
Big Idea: 1. The same number sentence (e.g. 12-4=8) can be associated with different concrete or real-world situations and different number sentences can be associated with the same concrete or real world situations. 2. The base-ten numeration system is a scheme for recording numbers using digits 0-9, groups of ten, and place value.	**Standards of Mathematical Practice:** MP.3 Construct viable arguments and critique the reasoning of others. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.
PA Core Content Standards/Anchors (or National Standards): **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. **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. **2.NBT.B.9 -** Explain why addition and subtraction strategies work, using place value and the properties of operations.	**Interdisciplinary Standards (if applicable):**
Essential Questions: How does composing and decomposing numbers allow us to make sense of and use the world of numbers? How does the relationship between place value and properties of operations help us to solve mathematical problems? How does conceptual understanding and fluency with numbers impact the use of mathematics?	**Understandings:** Students will know that… ● Adding and subtracting numbers results in new quantities. ● Any addition problem will have a related subtraction problem. ● The evaluation of a real-world situation can determine which operation should be used to solve the problem. ● Numbers may be given a new value from regrouping when adding and subtracting to 1000. ● When adding and subtracting three-digit numbers start with the ones column; sometimes it is necessary to compose or decompose tens or hundreds. ● Using the associative property can add in the conceptual understanding of a number.

Knowledge:	**Do/Skills:**
Compensation New groups below Simplify Strategy Tape Diagram	Students will be able to… ● Relate 10 more, 10 less, 100 more, and 100 less to addition and subtraction of 10 and 100. ● Add and subtract multiples of 100, including counting on to subtract. ● Add/Subtract multiples of 100 and some tens within 1,000. ● Use the associative property to make a hundred in one addend. ● Use the associative property to subtract from three-digit numbers and verify solutions with addition ● Share and critique solution strategies for varied addition and subtraction problems within 1,000. ● Subtract from multiples of 100 and from numbers with zero in the tens place. ● Apply and explain alternate methods for subtracting from multiples of 100 and from numbers with zero in the tens place. ● Choose and explain solution strategies and record with a written addition or subtraction method.
Vocabulary: Addend, addition, algorithm, bundle, compose, decompose, difference, equation, number bond, place value, rename, subtraction, ones, tens, hundreds	**Core Resources:** Eureka Math Teacher's Edition (Great Minds) Eureka Math Student Workbooks
Common Assessment(s): G2M5 Topic A Quiz G2M5 Topic B Quiz G2M5 Topic C Quiz G2M5 End-of-Module Assessment	**Supplemental Resources:** Zearn (free website that gives additional reteaching of Eureka lessons)

Grade, Subject/Course: 2nd Grade, Mathematics	
Unit: Module 6: Foundations of Multiplication and Division	**__X__ Essential _____ Important _____ Compact**
Big Idea: Any unit can be counted.	**Standards of Mathematical Practice:** MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.
PA Core Content Standards/Anchors (or National Standards): **2.G.A.2 -** Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. **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. **2.OA.A.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. **2.OA.A.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.	**Interdisciplinary Standards (if applicable):**
Essential Questions: How can equal groups be represented as repeated addition? How are arrays represented? How are multiplication and division related? How rules and patterns of odd and even numbers used to identify larger numbers?	**Understandings:** Students will know that… ● Equal parts can be composed to form a whole and a whole can be decomposed into equal parts ● There are many ways to construct or partition a given array. ● An even number can be found by: skip-counting by twos, objects being paired up with none left unpaired, doubling a whole number ● Any whole number that is not even is odd.

Knowledge: RDW process Array Tape diagram	**Do/Skills:** Students will be able to… ● Use spatial structuring skills by copying and creating drawings. ● Relate repeated addition to multiplication ● There are many ways to construct or partition a given array. ● Compose and decompose arrays. ● Solve word problems involving addition of equal groups in rows and columns.
Vocabulary: Addends, doubles, equation, number path, number sentence, pair, rectangle, skip-counting, square, sum, total, unit	**Core Resources:** Eureka Math Teacher's Editions (Great Minds) Eureka Math Student Workbooks
Common Assessment(s): G2M6 Topic A Quiz G2M6 Topic B Quiz G2M6 Topic C Quiz G2M6 Topic D Quiz G2M6 End-of-Module Assessment	**Supplemental Resources:** Zearn (free website that gives additional reteaching of Eureka lessons)

Grade, Subject/Course: 2nd Grade, Mathematics	
Unit: Module 7: Problem Solving with Length, Money, and Data	**__X__ Essential _____ Important _____ Compact**
Big Idea: Some attributes of objects are measurable and can be quantified using unit amounts. Measurement attributes can be quantified and estimated using customary and non-customary units of measure.	**Standards of Mathematical Practice:** 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.
PA Core Content Standards/Anchors (or National Standards): **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. **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. **2.MD.A.3** - Estimate lengths using units of inches, feet, centimeters, and meters. **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. **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. **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. **2.MD.C.8** - Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. **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. **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.	**Interdisciplinary Standards (if applicable):**

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.	
Essential Questions: How does identifying and using different units of measurement help us define lengths of objects? How does what we measure influence how we measure? How does the type of data influence the choice of display? How is money calculated to solve problems?	**Understandings:** Students will know that… ● Scale influences the patterns that can be observed in data. ● Graphs can be used to display data. ● Line plots, picture graphs, and bar graphs represent the same data in different forms. ● Currency (dollar bill and coins) has different values. ● For most money amounts, there are different, but finite combinations of currency that show the same amount. ● Like units of measurement can be added and subtracted. ● Linear measurement tools are number lines (ruler, yardstick, meter stick, measuring tape). ● The longer the unit of measure, the fewer units it takes to measure the object.
Knowledge: Units of Measurement (length, inches, feet, yards, centimeters, meters) Measurement Tools (ruler, yardstick, meter stick, measuring tape) Estimate Graphs (line plot, picture graph, bar graph, title, key, axis labels) Money Value (penny, nickel, dime, quarter, bills) Money Signs (cent sign, dollar sign, decimal point)	**Do/Skills:** Students will be able to… ● Sort and record data into a table using up to four categories; use category counts to solve word problems. ● Draw and label a picture and bar graph to represent a given data set. ● Recognize the value of coins and count up to find their total value. ● Solve word problems using the total value of coins and bills. ● Measure to compare the differences in length using inches, feet, and yards. ● Represent two-digit sums and differences involving length by using the ruler as a number line. ● Collect and record measurement data in a table; answer questions and summarize the data set. ● Draw a line plot to represent a given data set; answer questions and draw conclusions based on measurement data. ● Use addition and subtraction within 100 to solve word problems involving lengths of the same unit.

Vocabulary:		
Bar graph	Category	Data
Degree	Foot	Inch
Legend	Line plot	Picture graph
Scale	Survey	Yard
Cents	Coins	Dollars

Core Resources:

Eureka Math Teacher's Edition (Great Minds)

Eureka Math Student Workbooks

Common Assessment(s):

G2M7 Topic A Quiz
G2M7 Topic B Quiz
G2M7 Topic C/D Quiz
G2M7 Topic E Quiz
G2M7 End-of-Module Assessment

Supplemental Resources:

Zearn (free website that gives additional reteaching of Eureka lessons)

Grade, Subject/Course: 2nd Grade, Mathematics	
Unit: Module 8: Time, Shapes, and Fractions as Equal Parts of Shapes	**__X__ Essential _____ Important _____ Compact**
Big Idea: Two- and three-dimensional objects with or without curved surfaces can be described, classified, and analyzed by their attributes. Some attributes of objects are measurable and can be quantified using unit amounts.	**Standards of Mathematical Practice:** MP.1 Make sense of problems and persevere in solving them. MP.3 Construct viable arguments and critique the reasoning of others. MP.6 Attend to precision. MP.7 Look for and make use of structure.
PA Core Content Standards/Anchors (or National Standards): **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. **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. **2.MD.C.7** Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	**Interdisciplinary Standards (if applicable):**
Essential Questions: How does knowing the attributes of shapes help us solve real world problems? How are two- and three-dimensional objects alike and different? How does the relationship between wholes and their parts build an understanding of fractions? How are numbers on a clock used to tell time accurately? What is the relationship between analog and digital clocks?	**Understandings:** Students will know that… Three-dimensional shapes are composed of two-dimensional shapes. Shapes have specific characteristics that allow them to be identified. Fractions are a part of a whole; the whole can be one object or set of objects. In order to identify a fractional part of a whole the whole must first be broken into equal parts. The denominator represents the whole value that is being broken up or selected from and the numerator represents the selected parts. Fractions can be compared to determine their value. Recognize that equal shares of identical wholes need not have the same shape. The measurement of time is not part of the base ten system. A given time of day can be represented in more than one way.

Knowledge:	**Do/Skills:**
Parts of plane shapes and 3-D shapes (angle, face, edges, flat surfaces, vertices, etc.) Fractional parts (halves, thirds, quarters, equal parts) Congruency Symmetry Estimation Time (minute, half-hour, hour, quarter-of, quarter-after, half-past, AM, PM)	Students will be able to… Recognize and draw shapes having specified attributes. Correctly identify triangles, quadrilaterals, pentagons, hexagons, and cubes, cones, spheres, rectangular prisms, cylinders, pyramids based on the attributes of the shapes. Partition a shape into equal sized parts and count to find the total number of parts using the words halves, thirds, half of, a third of. Identify one hour as sixty minutes. Match the time of an analog clock to a digital clock. Count by fives to identify minutes on a clock. Recognize that AM represents morning hours and PM represents the afternoon and evening hours.
Vocabulary: triangle, quadrilateral, pentagon, hexagon, cube, cone, cylinder, sphere, rectangular prism, pyramid, plane shapes, part, whole, numerator, denominator, fraction, hour hand, minute hand, analog, digital	**Core Resources:** Eureka Math Teacher's Edition (Great Minds) Eureka Math Student Workbooks
Common Assessment(s): G2M8 Topic A/B Quiz G2M8 Topic C Quiz G2M8 Topic D Quiz G2M8 End-of-Module Assessment	**Supplemental Resources:** Zearn (free website that gives additional reteaching of Eureka lessons)