Grade, Subject/Course: 1st Grade, Mathematics	
Unit: Module 1 - Sums and Differences to 10	**___X__ Essential _____ Important _____ Compact**
Big Idea: This 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.	**Standards of Mathematical Practice:** 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
PA Core Content Standards/Anchors (or National Standards): C.C.2.2.1.A.1 Add and subtract within 20. Represent and solve problems involving addition and subtraction. C.C.2.2.1.A.2 Understand and apply properties of operations and the relationship between addition and subtraction.	**Interdisciplinary Standards (if applicable):**
Essential Questions: ● How does composing and decomposing allow us to make sense of numbers? ● How does understanding the inverse of operation help me either add or subtract?	**Understandings:** Students will know that… ● Some real-world problems involving joining, separating, or comparison can be solved using addition; others can be solved using subtraction. ● Adding is the opposite of subtracting. Using the inverse is useful when problem solving and checking for reasonable solutions. ● Properties of operations using whole numbers apply to certain operations, but not others. (ex – The commutative property applies to addition and multiplication, but not subtraction and division.)

Knowledge:	**Do/Skills:** Students will be able to…
● adding to ● taking from ● putting together ● taking apart ● comparing ● counting on ● counting back ● making ten ● number line ● touch points ● decomposing ● doubles ● doubles + 1 ● fact family	● Addition and subtraction within 20 using specific strategies ● Addition of three whole numbers (using unknown numbers) ● Identify the missing addend ● Fluency for addition and subtraction within 20 ● Relate counting to add. and sub. (counting on by 2 to add 2) ● Doubles, Doubles Plus One ● Determining the unknown numbers to make the equation true (8+ ? = 11, 5 = ? – 3, 6 + 6 = ? ● Decomposition of numbers using number bonds ● Generate all expressions equal to 10 ● Pair equivalent expressions using the equal sign ● Apply the Commutative (3+8=11 and 8+3=11) and Associative Properties (2+6+4=12=2+10=12) ● Visualize and solve Doubles and Doubles Plus One
Vocabulary: ● Commutative Property ● Associative Property ● expression ● addend ● sum ● difference ● equal	**Core Resources:*** Great Minds – Eureka Teacher's Edition Eureka Student Workbooks

Common Assessment(s): G1M1 Topic A/B Quiz G1M1 Topic C/D Quiz G1M1 Topic E/F Quiz G1M1 Mid-Module Assessment G1M1 Topic G Quiz G1M1 Topic H Quiz G1M1 Topic I Quiz G1M1 Topic J Quiz G1M1 End-of-Module Assessment	**Supplemental Resources:** Zearn (website) Embarc.online

Grade, Subject/Course: 1st Grade, Mathematics	
Unit: Module 2: Introduction to Place Value through Add and Sub to 20	**__X___ Essential _____ Important _____ Compact**
Big Idea: This 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.	**Standards of Mathematical Practice:** MP.2 Reason abstractly and quantitatively 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): C.C.2.2.1.A.1 Add and subtract within 20. Represent and solve problems involving addition and subtraction. C.C.2.2.1.A.2 Understand and apply properties of operations and the relationship between addition and subtraction. C.C.2.1.1.B.2 Use place-value concepts to represent amounts of tens and ones and to compare two digit numbers.	**Interdisciplinary Standards (if applicable):**
Essential Questions: ● How can counting on or making ten be used to solve	**Understandings:** Students will know that… ● Numbers can be represented using objects, words, and symbols in different

result unknown and total unknown problems? ● What strategies can be applied for solving change or addend unknown problems? ● How can using decomposition of teen numbers solve varied problems?	ways without changing the value of the number. ● Place values help me understand the magnitude of a variety of numbers. ● There are benefits and drawbacks to using different strategies when problem solving.
<u>Knowledge:</u> ● Greater than ● Less than ● Equal to ● More or less ● Plus sign ● Minus sign ● Associative Property ● Commutative Property ● Decomposing ● Composing ● Two-step problems	**<u>Do/Skills</u>:** Students will be able to… ● Understand that the two digits of a two-digit number represent amounts of tens and ones (three digits of a three-digit number represent amounts of hundreds, tens, and ones). ● Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. ● Using place value understanding and properties of operations to add and to subtract.
<u>Vocabulary:</u> ● Ten, ones ● Teen numbers ● Digit ● Bundle ● Compare ● Strategy ● Sum ● Addition ● Subtraction ● Difference ● Place Value	**<u>Core Resources</u>:** Great Minds – Eureka Teacher's Edition Eureka Student Workbooks

Common Assessment(s):	**Supplemental Resources:**
● G1M2 Topic A Quiz ● G1M2 Mid-Module Assessment ● G1M2 Topic B Quiz ● G1M2 Topic C Quiz ● G1M2 Topic D Quiz ● G1M2 End-of-Module Assessment	Zearn (website) Embarc.online

Grade, Subject/Course: 1st Grade, Mathematics	
Unit: Module 3: Ordering and Comparing Length Measurements as Numbers	**__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.6 Attend to precision MP.7 Look for and make use of structure
PA Core Content Standards/Anchors (or National Standards): C.C.2.4.1.A.1 Order lengths and measure them both indirectly and by repeating length units C.C.2.2.1.A.2 Understand and apply properties of operations and the relationship between addition and subtraction.	**Interdisciplinary Standards (if applicable):**
Essential Questions: ● How does what we measure influence how we measure? ● How can collecting and organizing data help to answer questions?	**Understandings:** Students will know that… ● Measurement processes are used in everyday life to describe and quantify the world. ● Measurement involves a selected attribute of an object and a comparison of the object being measured against a unit of the same attribute. ● The magnitude of the attribute to be measured and the accuracy needed determines the appropriate measurement unit.

Knowledge:	**Do/Skills:** Students will be able to…
• Length • width • Height • Non-standard unit	• Order objects by length. • Compare the lengths of two objects. • Measure using a non-standard unit of measure (end to end). • Use standard and non-standard units of measurement to find lengths and solve problems • Collect, sort and organize data. • Ask and answer questions about a set of data.
Vocabulary: • Centimeter • Centimeter cube • Data • Endpoint • Poll • Table or graph • Tally marks	**Core Resources:** Great Minds – Eureka Math (Great Minds) Teacher's Edition Eureka Student Workbooks
Common Assessment(s): • G1M3 Topic A/B Quiz • G1M3 Topic C Quiz • G1M3 Topic D Quiz • G1M3 End-of-Module Assessment	**Supplemental Resources:** Zearn (website) Embarc.online

Grade, Subject/Course: 1st Grade, Mathematics	
Unit: Module 4: Place Value, Comparison, Addition and Subtraction to **40**	**__X__ Essential _____ Important _____ Compact**
Big Idea: Numbers have specific values based on the placement of their digits 0-9.	**Standards of Mathematical Practice:** 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.
PA Core Content Standards/Anchors (or National Standards): ● CC.2.1.1.B.1 Extend the counting sequence to read and write numerals to represent objects. ● CC.2.1.1.B.2 Use place value concepts to represent amounts of tens and ones and to compare two digit numbers. ● CC.2.1.1.B.3 Use place value concepts and properties of operations to add and subtract within 100.	**Interdisciplinary Standards (if applicable):**
Essential Questions: How do patterns help us make sense of the values of numbers? How does the relationship between place value and properties of operations help us to solve mathematical problems? How do I choose a specific strategy when I add or when I subtract? Is there a benefit to using one strategy over another? Why is it useful to demonstrate how to use my tens and ones to make one and two digit numbers?	**Understandings:** Students will know that… ● Numbers can be represented using objects, words, and symbols in different ways without changing the value of the number. ● Place values help me understand the magnitude of a variety of numbers. ● There are benefits and drawbacks to using different strategies when problem solving.
Knowledge: ● Ones place ● Tens place ● Bundle ● Compare ● Greater than ● Less than ● Arrow notation ● Number bond ● Rekenrek ● Tape Diagram	**Do/Skills:** Students will be able to… ● Interpret two-digit numbers as either tens and some ones or as all ones. ● Write and interpret two-digit numbers as addition sentences that combine tens and ones. ● Use dime and pennies as representations of tens and ones. ● Compare quantities and numerals from left to right. ● Add tens to a two-digit number. ● Use single-digit sums to support solutions. ● Recognize and make use of part-whole relationships. ● Add a pair of two-digit numbers with varied sums.

Vocabulary:	**Core Resources:**
• Equal • Numerals • Digits • Ones • Tens • >, < • Place value	Great Minds – Eureka Teacher's Edition Eureka Student Workbooks
Common Assessment(s): • G1M4 Topic A Quiz • G1M4 Topic B Quiz • G1M4 Mid-Module Assessment • G1M4 Topic C Quiz • G1M4 Topic D/E Quiz • G1M4 Topic F Quiz • G1M4 End-of-Module Asssessment	**Supplemental Resources:** Zearn (website) Embarc.online

Grade, Subject/Course: 1st Grade, Mathematics	
Unit: Module 5: Identifying, Composing, and Partitioning Shapes	**__X__ Essential _____ Important _____ Compact**
Big Idea: Some objects can be described, classified, analyzed and measured by their attributes.	**Standards of Mathematical Practice:** MP.1 Make sense of problems and persevere in solving them. MP.6 Attend to precision. MP.7 Look for and make use of structure.
PA Core Content Standards/Anchors (or National Standards): C.C.2.3.1.A.1 Compose and distinguish between two and three-dimensional shapes based on their attributes. C.C.2.3.1.A.2 Use the understanding of fractions to partition shapes into halves and quarters. C.C.2.4.1.A.2 Tell and write time to the nearest half hour using both analog and digital clocks.	**Interdisciplinary Standards (if applicable):**
Essential Questions:	**Understandings:**

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- How can applying the attributes of objects/shapes solve real world situations?
- How does breaking objects/shapes into fractional parts help us to see relationships between different objects and the attributes of these objects?

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Students will know that…

- Polygons can be composed and classified by their attributes.
- There is more than one way to classify most shapes and solids.
- Breaking shapes into fractional parts helps to sow the relationships between different shapes.
- Attributes of two and three-dimensional shapes help us make sense of their similarities and differences.
- The magnitude of the attribute to be measured and the accuracy needed determines the appropriate measurement unit.

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<u>Knowledge:</u>

- Attributes
- Composite Shapes
- Digital Clock
- Analog Clock
- Two-dimensional Shapes
- Three-dimensional Shapes

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<u>Do/Skills</u>:

Students will be able to…

- Distinguish between defining attributes (closed, not closed, how many sided) and non-defining (color, overall size)
- Build and draw shapes to possess specific attributes.
- Compose two-dimensional shapes and three-dimensional shapes to create a composite shape, and compose new shapes from the composite shapes.
- Find and name two-dimensional and three-dimensional shapes (trapezoid, rhombus, square as a special rectangle, cone and rectangular prism).
- Partition shapes (circles and rectangles) into halves and quarters.
- Tell and write time in hours and half hours using both analog and digital clocks.

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<u>Vocabulary:</u>

- Face
- Fourths
- Half-hour
- Half
- Half past
- Hour
- Minute
- O’Clock
- Quarter
- Cone, Rectangular Prism, Cube, Cylinder, Sphere
- Rhombus, Circle, Cube, Cylinder, Hexagon, Rectangle, Square, Triangle

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<u>Core Resources</u>:

Great Minds –

Eureka Teacher’s Edition

Eureka Student Workbooks

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Common Assessment(s):	**Supplemental Resources:**
● G1M5 Topic A/B Quiz ● G1M5 Topic C Quiz ● G1M5 Topic D ● G1M5 End-of-Module Assessment	Zearn (website) Embarc.online

Grade, Subject/Course: 1st Grade, Mathematics	
Unit: Module 6: Place Value, Comparison, Addition and Subtraction to **100**	**__X__ Essential _____ Important _____ Compact**
Big Idea: Numbers have specific values based on the placement of their digits 0-9.	**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.4 Model with mathematics. MP.5 Use appropriate tools strategically.
PA Core Content Standards/Anchors (or National Standards): CC.2.1.1.B.1 Extend the counting sequence to read and write numerals to represent objects. CC.2.1.1.B.2 Use place value concepts to represent amounts of tens and ones and to compare two digit numbers. CC.2.1.1.B.3 Use place value concepts and properties of operations to add and subtract within 100. C.C.2.2.1.A.2 Understand and apply properties of operations and the relationships between addition and subtraction.	**Interdisciplinary Standards (if applicable):**
Essential Questions: How do patterns help us make sense of the values of numbers? How does the relationship between place value and properties of operations help us to solve mathematical problems?	**Understandings:** Students will know that… ● Some real-world problems involving joining, separating, or comparison can be solved using addition; others can be solved using subtraction. ● Adding is the opposite of subtracting. Using the inverse is useful when problem solving and checking for reasonable solutions. ● Properties of operations using whole numbers apply to certain operations, but not

How does composing and decomposing allow us to make sense of numbers? How does understanding the inverse of operation help us either add or subtract? How can the value of coins help to understand decomposing of numbers? (pennies, nickels, dimes, quarters)	others. (ex – The commutative property applies to addition and multiplication, but not subtraction and division.) ● Numbers can be represented using objects, words, and symbols in different ways without changing the value of the number. ● Place values help me understand the magnitude of a variety of numbers. ● There are benefits and drawbacks to using different strategies when problem solving.
Knowledge: ● Adding to ● Taking from ● Putting together ● Taking apart ● Comparing ● Counting on ● Counting back ● Making ten ● Commutative Property ● Associative Property ● Coin Value	**Do/Skills:** Students will be able to… ● Understand that the two digits of a two-digit number represent amounts of tens and ones (three digits of a three-digit number represent amounts of hundreds, tens, and ones). ● Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. ● Addition and subtraction to 100 including: two digit and one-digit, two digit and multiples of 10, two digit with two digit recognizing adding the ten to the ten and the one to the one, subtract multiples of 10. ● Addition of three whole numbers (using unknown numbers). ● Identify the missing addend.
Vocabulary: ● Decompose ● Addend ● Sum ● Difference ● Inverse	**Core Resources:** Great Minds – Eureka Teacher's Edition Eureka Student Workbooks
Common Assessment(s): ● G1M6 Topic A Quiz ● G1M6 Topic B Quiz ● G1M6 Topic C Quiz ● G1M6 Mid-Module Assessment ● G1M6 Topic E Quiz ● G1M6 Topic F Quiz ● G1M6 End-of-Module Assessment	**Supplemental Resources:** Zearn (website) Embarc.online