1st Grade: Lauderdale County Schools: Math Syllabus 2024-2025

1st Quarter: August - October

Alabama Math Course of Study: 1st Grade (2019)

Kindergarten Standards for Review:
AL.K.2: Count to 100 by ones beginning with any given number between 0 and 99.
AL.K.3: Write numerals from 0 to 20.
AL.K.12: Fluently add and subtract within 5.
AL.K.14: Compose and decompose numbers from 11 to 19 by using concrete objects or drawings to demonstrate understanding that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

1st Grade Math Standards:
AL.1.1 Use addition and subtraction to solve word problems within 20 by using concrete objects, drawings, and equations with a symbol for the unknown number to represent the problem.
AL.1.3 Apply properties of operations as strategies to add and subtract.AL.1.4 Explain subtraction as an unknown-addend problem.
AL.1.5 Relate counting to addition and subtraction.
AL.1.6 Add and subtract within 20.
AL.1.7 Explain that the equal sign means "the same as." Determine whether equations involving addition and subtraction are true or false.
AL.1.8 Solve for the unknown whole number in various positions in an addition/subtraction equation, relating three whole numbers that would make it true.

Games and Activities to use at home all year:

- Math at Home
- Technology Games/Apps

Parent Information for 1st Grade Math: Family Success Guide

Adopted Curriculum
Eureka Module 1: Sums and Differences to 10

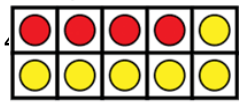
In this first module of Grade 1, students make significant progress toward fluency with addition and subtraction of numbers to 10. They are presented with opportunities designed to advance them from counting all to counting on. This leads many students to decomposing and composing total amounts. This module is an important foundational piece for our first grade mathematicians.

Eureka Module 1, Topic A: Embedded Numbers & Decompositions
Big Ideas: Understand and decompose numbers to 10, Identify concept of 1 more than a given number

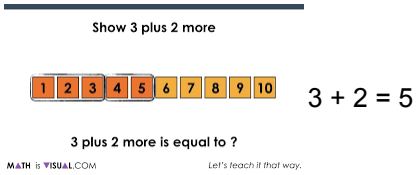
Eureka Module 1, Topic B: Counting On from Embedded Numbers

Parent Helps

- **Visual Models**: Ten Frames, Number Paths



4 + 6 - 10



3 + 2 = 5

- **Manipulatives/Materials:** counters, counting collections, Unifix cubes, Beaded

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Big Ideas: Represent different ways to make 6 through 10 (i.e 4+2, 5+1 etc.), Demonstrate understanding of how many more are needed when given a number, Understand number relationships for all expressions .

Eureka Module 1, Topic C: Addition Word Problems
Big Ideas: *Solve equations with unknown variables using drawings, writing, & explaining the solution up to 10, Add to find result or change unknown by counting on up to 10*

Eureka Module 1, Topic D: Strategies for Counting On
Big Ideas: Count on 1-3 more from numbers to 10 quickly using a variety of methods, Count on to find the missing addend up to 10

Module 1, Topic E: The Commutative Property of Addition and the Equal Sign
Big Ideas: Understand when an equation is equivalent and true number sentences, Demonstrate an understanding of the commutative property

Eureka Module 1, Topic F: Development of Addition Fluency Within 10
Big Ideas: Mentally visualize doubles (1+1, 2+2 etc.) and doubles +1 (7=[3+3]+1) using 5-group cards, Use addition chart to look for patterns and identify problems with the same results, Demonstrate fluency in facts up to 10

Eureka Module 1, Topic G: Subtraction as an Unknown Addend Problem
Big Ideas: Begin to see the relationship between addition to subtraction using change unknown story problems within 10, Use the number path to determine the unknown part

Eureka Module 1, Topic H: Subtraction Word Problems
Big Ideas: Use a variety of methods to solve take from, take apart, and add to problems with the change unknown within 10

Eureka Module 1, Topic I: Decomposition Strategies for Subtraction
Big Ideas: Relate subtraction from nine and ten to corresponding decompositions

Eureka Module 1, Topic J: Development of Subtraction Fluency Within 10
Big Ideas: Use addition chart to solve subtraction problems & create sets between addition & subtraction facts

number line, Beaded pipe cleaner, red/yellow counters, Number Fans, 5 Group Cards, subitizing cards

- **Addition/Subtraction Strategies:**
  - +1, -1
  - Counting On
  - Doubles (2+2), Doubles +1 (2+3)
  - Commutative Property (2+3 = 3+2)
  - Video: Relating Addition to Subtraction
- **How can you help at home?**
  - Practice “counting on” as a strategy for addition, e.g. if you have 7 LEGO pieces, and then you get 3 more, encourage your student to start with the number 7 and count “8…9…10” to find the total.
  - Discuss various ways to take apart a given number, e.g. 6 is made of 1 and 5, 2 and 4, 3 and 3, etc.
  - Counting up to 50 objects
  - Identifying and Writing numerals
- **Eureka, Module 1 Videos**
- **The Equals Sign**: This math symbol means “the same as” or “equivalent”. It does not mean “answer”. Students will see equations in a variety of formats and having the understanding of the equals sign is important.
  - 2 + 3 = 5
  - 5 = 2 + 3
  - 4 + 1 = 2 + 3
  - Video: The Equals Sign

2nd Quarter: October - December

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1st Grade Standards:
AL.1.1 Use addition and subtraction to solve word problems within 20 by using concrete objects, drawings, and equations with a symbol for the unknown number to represent the problem.
AL.1.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20 by using concrete objects, drawings, or equations with a symbol for the unknown number to represent the problem.
AL.1.3 Apply properties of operations as strategies to add and subtract.
AL.1.6 Add and subtract within 20.

Adopted Curriculum

Eureka Module 2: Introduction to Place Value Through Addition and Subtraction within 20

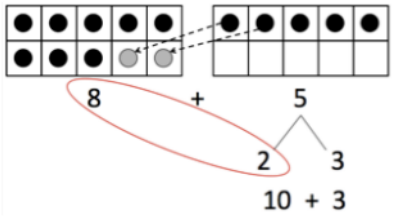
In this module, students will extend their work in addition to the numbers 1-20 and learn some new strategies along the way.

Eureka Module 2, Topic A: Counting On or Making Ten to Solve Result Unknown and Total Unknown Problems

Big Ideas: Solve word problems and use the commutative and associative properties with three addends, Begin to make a 10 when addend is 7, 8 and 9, Learn efficient ways to add

Parent Help: New Addition Strategy:

- **Making A Ten**: This is an important strategy for fluency. Students should work with ten-frames. They combine dots to fill a ten-frame. Example: we moved 2 dots from 5 to make a ten. The result is 10 + 3. Video: Making a Ten



Parent Helps

- **Visual Models**: Ten Frames, Number Paths, Place Value Chart
- **Manipulatives/Materials:** Unifix cubes, Tens frames, Beaded pipe cleaner, Counters, 100 chart
- **How can you help at home?**
  - Continue building addition/subtraction fluency to 10.
- **Eureka Module 2 Videos: Topic A Lessons 1-11**

Alabama Math Course of Study: 1st Grade (2019)

1st Grade Standards:
AL.1.16 Organize, represent, and interpret data with up to three categories.

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a. Ask and answer questions about the total number of data points in organized data.
b. Summarize data on Venn diagrams, pictographs, and "yes-no" charts using real objects, symbolic representations, or pictorial representations.
c. Determine "how many" in each category using up to three categories of data.
d. Determine "how many more" or "how many less" are in one category than in another using data organized into two or three categories.
AL.1.17 Order three objects by length; compare the lengths of two objects indirectly by using a third object.
AL.1.18Determine the length of an object using non-standard units with no gaps or overlaps, expressing the length of the object with a whole number.

Adopted Curriculum

Eureka Module 3: Ordering & Comparing Length Measurements as Numbers

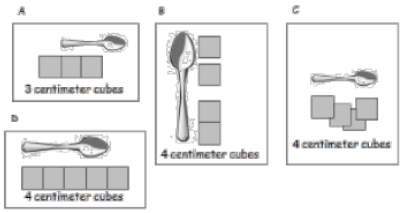
Students will use non-standard units to measure objects and will compare and order objects by length. They will begin to build the conceptual understanding of the need for standard measurement.

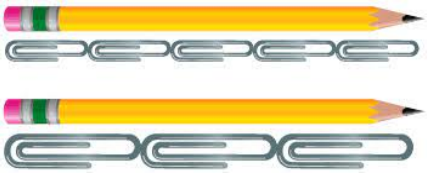
Eureka Module 3, Topic A: Indirect Comparison in Length Measurement
Big Ideas: Use different objects to compare lengths using longer than, shorter than or equal sentences, Order objects by length

Eureka Module 3, Topic B: Standard Length Units
Big Ideas: Use centimeter cubes (students are not required to know centimeter in 1st grade) to measure and describe using standard units (centimeters), Answer compare with difference unknown problems about lengths of two different objects measured in centimeters, Reason about correctly and incorrectly measuring.

Eureka Module 3, Topic C: Non-Standard and Standard Length Units
Big Ideas: Measure objects using non-standard units, Answer compare with difference unknown problems about lengths of two different objects measured in centimeters.

Eureka Module 3, Topic D: Data Interpretation
Big Ideas: Use data collection to sort and organize, Ask/answer word problems with three categories of data.





Parent Helps

- **Visual Models**: Tally mark graphs, Pictographs, Venn diagrams, Yes/no charts, Bar graphs
- **Manipulatives/Materials:** Unifix cubes, Centimeter cubes, Paper clips, items to measure
- **How can you help at home?**
  - Give your child opportunities to measure objects using other objects. Examples: How many lego pieces long is your book? How many crayons long is the sofa?
  - Collect and sort data at home. Examples: What is each member of your family's favorite food? How many pairs of shoes does each member of our family have? What is each member of our family's favorite sport?
- Eureka Module 3 Videos

Alabama Math Course of Study: 1st Grade (2019)

1st Grade Standards:
AL.1.21 Build and draw shapes which have defining attributes.

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a. Distinguish between defining attributes and non-defining attributes.
AL.1.22 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.
AL.1.23 Partition circles and rectangles into two and four equal shares and describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of.
a. Describe "the whole" as two of or four of the shares of circles and rectangles partitioned into two or four equal shares.
b. Explain that decomposing into more equal shares creates smaller shares of circles and rectangles.
AL.1.19Tell and write time to the hours and half hours using analog and digital clocks.

Adopted Curriculum
Eureka Module 5: Identifying, Composing, & Partitioning Shapes

Eureka Module 5, Topic A: Attributes of Shapes
Big Ideas:: Use attributes such as sides, corners, faces and points to classify both two-dimensional and three-dimensional shapes

Eureka Module 5, Topic B: Part-Whole Relationships Within Composite Shapes
Big Ideas: Combine shapes to form composite shapes • Explore relationships between parts and wholes of a shape

Eureka Module 5, Topic C: Halves and Quarters of Rectangles and Circles
Big Ideas: Name equal parts (halves, fourths or quarters) and wholes, Partition rectangles and circles into 2 or 4 equal parts, Identity when shapes do and do not have equal parts

Eureka Module 5, Topic D: Application of Halves to Tell Time
Big Ideas: Tell time to the hour and half hour, Relate halves of a clock face to tell time to the half hour

Parent Helps

- **Visual Models**: Models for partitioning: circles, rectangles
- **Shapes to be familiar with their attributes**: rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles, hexagon, cubes, rectangular prisms, cones, cylinders
- **Eureka Module 5 Videos**
- **Manipulatives/Materials students may use:** Pattern blocks, 3D shapes, Construction paper and paper plate folding for partitioning, Geoboards, Clocks
- **How can you help at home?**
  - Find and discuss shapes around your home or while out and about.
  - Cut basic shapes and use them to create composite shapes.
  - Discuss time and explore clocks with your child
- Video: Halves and Fourths

3rd Quarter: January - March

Alabama Math Course of Study: 1st Grade (2019)

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1st Grade Standards:
AL.1.9. Reproduce, extend, and create patterns and sequences of numbers using a variety of materials. *Standard 9 is not explicitly taught in Eureka, but can be easily incorporated in this module with 100s charts and fluency routines.*
AL.1.10. Extend the number sequence from 0 to 120.
a. Count forward and backward by ones, starting at any number less than 120.
AL.1.11. Explain that the two digits of a two-digit number represent amounts of tens and ones.
a. Identify a bundle of ten ones as a "ten."
c. Identify the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 as one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
AL.1.12. Compare pairs of two-digit numbers based on the values of the tens and ones digits, recording the results of comparisons with the symbols >, =, and < and orally with the words "is greater than," "is equal to," and "is less than."
AL.1.13. Add within 100, using concrete models or drawings and strategies based on place value.
a. Add a two-digit number and a one-digit number.
b. Add a two-digit number and a multiple of 10.
c. Demonstrate that in adding two-digit numbers, tens are added to tens, ones are added to ones, and sometimes it is necessary to compose a ten.
d. Relate the strategy for adding a two-digit number and a one-digit number to a written method and explain the reasoning used.
AL.1.14. Given a two-digit number, mentally find 10 more or 10 less than the number without having to count, and explain the reasoning used.
AL.1.15. Subtract multiples of 10 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Relate the strategy to a written method and explain the reasoning used.

Adopted Curriculum

Eureka Module 4: Place Value, Comparison, Addition and Subtraction to 40

Students will study, organize, and manipulate numbers within 40. They will compare number quantities using the symbols (<,>,=). Students will work with adding and subtracting tens and will begin to add two-digit numbers

Eureka Module 4, Topic A: Tens and Ones
Big Ideas: Represent numbers to 40 in multiple ways: groups of tens and ones, fingers, and cubes, Organize numbers using a place value chart, Identify 1 more, 1 less, 10 more and 10 less than a given number

Eureka Module 4, Topic B: Comparison of Pairs of Two-Digit Numbers
Big Ideas: Use symbols for greater than (>), less than (<) and = within 40, Label quantities being represented from left to right.

Eureka Module 4, Topic C: Addition and Subtraction of Tens
Big Ideas: Use equations to add tens onto a two digit number within 40 (ex. 23 + 10 = 33), Subtract multiples of ten from a multiple of ten..

Eureka Module 4, Topic D: Addition of Tens or Ones to a Two-Digit Number
Big Ideas: Add a two digit number to a one digit number using the make ten strategy (ex. In 27 + 5, students will break apart the 5 to be 3 and 2. 27 + 5 = 27 + 3 + 2, 30 + 2 = 32)

Parent Helps

- **Visual Models**: Ten Frames, Number Paths, Place Value Chart (Tens and Ones)
- **Manipulatives/Materials students may use:** Unifix cubes, Tens frames, Beaded number line, Beaded pipe cleaner, Counters, 100 chart, Hide Zero Cards, Counting Collections
- **How can you help at home?**
  - Counting Collections: Students' learning can be supported at home with counting collections. Suggested Magnitude: 50-100 minimum items.
  - When drawing tens and ones, draw the quick tens sticks and the ones in a vertical or horizontal tens frame. Avoid using coins, arrow path notation, and place value discs.
  - Alligator Strategy: When only taught this method, students will later encounter problems like x > 7 or -3 < 1 and the “alligator strategy” will no longer be applicable. **Students must have a good understanding of comparison and**

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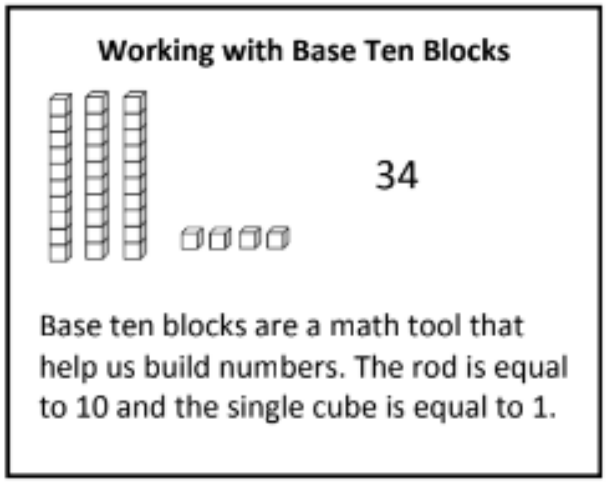
Eureka Module 4, Topic E: Varied Problem Types Within 20
Big Ideas: Solve word problems involving numbers within this module, Represent problems using tape diagrams

Eureka Module 4, Topic F: Addition of Tens and Ones to a Two-Digit Number
Big Ideas: Add two- digit numbers (25 + 23), where students add the ones with the ones & the tens with the tens



Using “quick tens and ones” to show base 10

connect the language of “greater/less than” to the symbol. Comparing Numbers Video

- Eureka Module 4 Videos
- Introduction to Place Value
- Place Value Video

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AL.1.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20 by using concrete objects, drawings, or equations with a symbol for the unknown number to represent the problem.
AL.1.3 Apply properties of operations as strategies to add and subtract.
AL.1.4 Explain subtraction as an unknown-addend problem.
AL.1.5 Relate counting to addition and subtraction.
AL.1.6 Add and subtract within 20.
AL.1.7 Explain that the equal sign means "the same as." Determine whether equations involving addition and subtraction are true or false.

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AL.1.8 Solve for the unknown whole number in various positions in an addition or subtraction equation, relating three whole numbers that would make it true

Adopted Curriculum

Eureka Module 2: Introduction to Place Value Through Addition and Subtraction within 20

Now that we have explored place value, we will revisit Module 2 and apply our learning to subtraction with numbers 1-20.

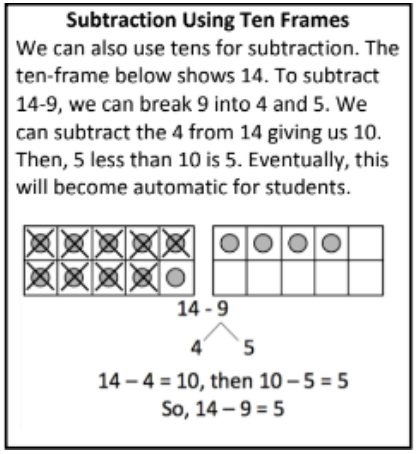
Eureka Module 2, Topic B: Counting On or Taking from Ten to Solve Result Unknown and Total Unknown Problems
Big Ideas: Subtract 7-10 from teen numbers and in word problems using direct modeling, Count on to make ten and take from ten

Eureka Module 2, Topic C: Strategies for Solving Change or Addend Unknown Problems
Big Ideas: Solve addition and subtraction problems to 20 with unknown in all positions using various strategies, Strategize and apply the equal sign to solve equivalent expressions up to 20

Eureka Module 2, Topic D: Varied Problems with Decompositions of Teen Numbers as 1 Ten and Some Ones
Big Ideas: Group 1 ten as a unit Add and subtract using teen numbers by grouping 1 ten and some ones (using direct modeling and counting on)

Parent Helps

- **Visual Models**: Ten Frames, Number Paths, Place Value Chart
- **Manipulatives/Materials students may use:** Unifix cubes, Tens frames, Beaded pipe cleaner, Counters, 100 chart



- Eureka Module 2 Videos

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4th Quarter: March - May

Alabama Math Course of Study: 1st Grade (2019)

AL.1.1. Use addition and subtraction to solve word problems within 20 by using concrete objects, drawings, and equations with a symbol for the unknown number to represent the problem.
AL.1.10. Extend the number sequence from 0 to 120.
AL.1.11. Explain that the two digits of a two-digit number represent amounts of tens and ones.
- **a. Identify a bundle of ten ones as a "ten."**
- **b. Identify the numbers from 11 to 19 as composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.**
- **c. Identify the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 as one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).**

AL.1.12. Compare pairs of two-digit numbers based on the values of the tens and ones digits, recording the results of comparisons with the symbols >, =, and < and orally with the words "is greater than," "is equal to," and "is less than."
AL.1.13. Add within 100, using concrete models or drawings and strategies based on place value.
- **a. Add a two-digit number and a one-digit number.**
- **b. Add a two-digit number and a multiple of 10.**
- **c. Demonstrate that in adding two-digit numbers, tens are added to tens, ones are added to ones, and sometimes it is necessary to compose a ten.**
- **d. Relate the strategy for adding a two-digit number and a one-digit number to a written method and explain the reasoning used.**

AL.1.14. Given a two-digit number, mentally find 10 more or 10 less than the number without having to count, and explain the reasoning used.
AL.1.15. Subtract multiples of 10 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Relate the strategy to a written method and explain the reasoning used.
AL.1.20. Identify pennies and dimes by name and value.

Adopted Curriculum

Eureka Module 6: Place Value, Comparison, Addition and Subtraction to 100

Eureka Module 6, Topic A: Comparison Word Problems
Big Ideas: Solve comparison word problems with difference unknown and bigger or smaller unknown.

Eureka Module 6, Topic B: Numbers to 120
Big Ideas: Names/writes tens and ones within a two digit number up to 100, Can recognize that a two digit number such as 67 is a combination of 6 tens and 7 ones, Identify 10 more, 10 less, 1 more, and 1 less than a two-digit number within 100, Use the symbols >, =, and < to compare quantities and numerals to 100, Can write numbers as tens and ones, Count, write and represent numbers to 120

Eureka Module 6, Topic C: Addition to 100 Using Place Value Understanding
Big Ideas: Add and subtract multiples of 10 from multiples of 10 to 100 (90- 70), Add a multiple of 10 to any two-d number within 100 (29 + 30)
- *1st grade students are only to add two digit numbers to one digit numbers and multiples of ten*

Eureka Module 6, Topic E: Coins and Their Values
Big Ideas: Identify pennies and dimes by name and value
- *Focus on identifying and knowing the value of each coin. Adding coins is not a first grade standard.*

Eureka Module 6, Topic F: Varied Problem Types Within 20
Big Ideas: Solve compare with bigger or smaller unknown problems within 20, Share their strategies with peers

Parent Helps

- **Visual Models**: Ten Frames, Number Paths/Lines, Place Value Chart
- **Manipulatives/Materials students may use:** Unifix cubes, Beaded number line, Beaded pipe cleaner, Counters, Green foam base ten blocks, 120 chart, dimes, pennies
- Eureka Module 6 Videos