Focused Mathematics Intervention and Alabama Course of Study
Level 2

	Domain	Cluster	Alabama Mathematics Standard	Mathematical Practices
Lesson #1	Operations with Numbers: Base Ten	Understand place value.	6. Explain that the three digits of a three-digit number represent amounts of hundreds, tens, ones. a. Explain the following three-digit numbers as special cases: 100 can be thought of as a bundle of ten tens, called a "hundred," and 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). 8. Read and write numbers to 1000 using base-ten numerals, number names, & expanded form.	5. Use appropriate tools strategically.
Lesson #2	Operations with Numbers: Base Ten	Understand place value.	6. Explain that the three digits of a three-digit number represent amounts of hundreds, tens, ones. a. Explain the following three-digit numbers as special cases: 100 can be thought of as a bundle of ten tens, called a "hundred," and 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).	1. Make sense of problems and persevere in solving them. 5. Use appropriate tools strategically.
Lesson #3	Operations and Algebraic Thinking	Work with equal groups of objects to gain foundations for multiplication.	3. Use concrete objects to determine whether a group of up to 20 objects is even or odd. a. Write an equation to express an even number as a sum of two equal addends.	1. Make sense of problems and persevere in solving them.
Lesson #4	Operations with Numbers: Base Ten	Understand place value.	6. Explain that the three digits of a three-digit number represent amounts of hundreds, tens, ones. a. Explain the following three-digit numbers as special cases: 100 can be thought of as a bundle of ten tens, called a "hundred," and 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). 8. Read and write numbers to 1000 using base-ten numerals, number names, & expanded form.	4. Model with mathematics. 5. Use appropriate tools strategically.
Lesson #5	Operations with Numbers: Base Ten	Understand place value.	8. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	4. Model with mathematics. 5. Use appropriate tools strategically.
Lesson #6	Operations with Numbers: Base Ten	Understand place value.	8. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. 9. Compare two three-digit numbers based on the value of the hundreds, 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."	1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively.
Lesson #7	Operations with Numbers: Base Ten	Use place value understanding and properties of operations to add and subtract.	10. Fluently add and subtract within 100, using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	1. Make sense of problems and persevere in solving them.
Lesson #8	Operations with Numbers: Base Ten	Use place value understanding and properties of operations to add and subtract.	10. Fluently add and subtract within 100, using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics.
Lesson #9	Operations with Numbers: Base Ten	Use place value understanding and properties of operations to add and subtract.	10. Fluently add and subtract within 100, using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	2. Reason abstractly and quantitatively. 8. Look for and express regularity in repeated reasoning.
Lesson #10	Operations with Numbers: Base Ten	Use place value understanding and properties of operations to add and subtract.	10. Fluently add and subtract within 100, using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	2. Reason abstractly and quantitatively. 8. Look for and express regularity in repeated reasoning.
Lesson #11	Operations with Numbers: Base Ten	Use place value understanding and properties of operations to add and subtract.	12. 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. a. Explain 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.	1. Make sense of problems and persevere in solving them.
Lesson #12	Operations with Numbers: Base Ten	Use place value understanding and properties of operations to add and subtract.	12. 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. a. Explain 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.	1. Make sense of problems and persevere in solving them. 5. Use appropriate tools strategically.

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	Domain	Cluster	Alabama Mathematics Standard	Mathematical Practices
Lesson #13	Operations and Algebraic Thinking	Represent and solve problems involving addition and subtraction.	1. Use addition and subtraction within 100 to solve one- and two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.	4. Model with mathematics.
Lesson #14	Operations and Algebraic Thinking	Represent and solve problems involving addition and subtraction.	1. Use addition and subtraction within 100 to solve one- and two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.	4. Model with mathematics.
Lesson #15	Operations with Numbers: Base Ten	Use place value understanding and properties of operations to add and subtract.	10. Fluently add and subtract within 100, using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	3. Construct viable arguments and critique the reasoning of others. 7. Look for and make use of structure.
Lesson #16	Operations and Algebraic Thinking	Represent and solve problems involving addition and subtraction.	1. Use addition and subtraction within 100 to solve one- and two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.	4. Model with mathematics.
Lesson #17	Operations and Algebraic Thinking	Work with equal groups of objects to gain foundations for multiplication.	3. Use concrete objects to determine whether a group of up to 20 objects is even or odd. a. Write an equation to express an even number as a sum of two equal addends.	4. Model with mathematics.
Lesson #18	Operations and Algebraic Thinking	Work with equal groups of objects to gain foundations for multiplication.	4. Using concrete and pictorial representations and repeated addition, determine the total number of objects in a rectangular array with up to 5 rows and up to 5 columns. a. Write an equation to express the total number of objects in a rectangular array with up to 5 rows and up to 5 columns as a sum of equal addends.	1. Make sense of problems and persevere in solving them. 3. Construct viable arguments and critique the reasoning of others.
Lesson #19	Data Analysis	Collect and analyze data and interpret results.	16. Create a picture graph and bar graph to represent data with up to four categories. a. Using information presented in a bar graph, solve simple "put-together," "take-apart," and "compare" problems. b. Using Venn diagrams, pictographs, and "yes-no" charts, analyze data to predict an outcome.	4. Model with mathematics. 5. Use appropriate tools strategically.
Lesson #20	Measurement	Measure and estimate lengths in standard units.	17. Measure the length of an object by selecting and using standard units of measurement shown on rulers, yardsticks, meter sticks, or measuring tapes.	4. Model with mathematics. 5. Use appropriate tools strategically.
Lesson #21	Measurement	Measure and estimate lengths in standard units.	17. Measure the length of an object by selecting and using standard units of measurement shown on rulers, yardsticks, meter sticks, or measuring tapes.	4. Model with mathematics. 5. Use appropriate tools strategically.
Lesson #22	Measurement	Measure and estimate lengths in standard units.	17. Measure the length of an object by selecting and using standard units of measurement shown on rulers, yardsticks, meter sticks, or measuring tapes.	2. Reason abstractly and quantitatively. 8. Look for and express regularity in repeated reasoning.
Lesson #23	Measurement	Measure and estimate lengths in standard units.	20. Measure to determine how much longer one object is than another, expressing the length difference of the two objects using standard units of length.	3. Construct viable arguments and critique the reasoning of others.
Lesson #24	Measurement	Relate addition and subtraction to length.	21. Use addition and subtraction within 100 to solve word problems involving same units of length, representing the problem with drawings (such as drawings of rulers) and/or equations with a symbol for the unknown number.	2. Reason abstractly and quantitatively. 8. Look for and express regularity in repeated reasoning.

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	Domain	Cluster	Alabama Mathematics Standard	Mathematical Practices
Lesson #25	Measurement	Relate addition and subtraction to length.	21. Use addition and subtraction within 100 to solve word problems involving same units of length, representing the problem with drawings (such as drawings of rulers) and/or equations with a symbol for the unknown number.	2. Reason abstractly and quantitatively. 8. Look for and express regularity in repeated reasoning.
Lesson #26	Operations with Numbers: Base Ten	Use place value understanding and properties of operations to add and subtract.	10. Fluently add and subtract within 100, using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	4. Model with mathematics.
Lesson #27	Measurement	Work with time and money.	23. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m./ p.m. a. Express an understanding of common terms such as, but not limited to, quarter past, half past, and quarter to.	2. Reason abstractly and quantitatively. 8. Look for and express regularity in repeated reasoning.
Lesson #28	Measurement	Work with time and money.	24. Solve problems with money. a. Identify nickels and quarters by name and value. b. Find the value of a collection of quarters, dimes, nickels, and pennies. c. Solve word problems by adding and subtracting within one dollar, using the $ and ¢ symbols appropriately (not including decimal notation).	2. Reason abstractly and quantitatively. 8. Look for and express regularity in repeated reasoning.
Lesson #29	Geometry	Reason with shapes and their attributes.	25. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. a. Recognize and draw shapes having specified attributes.	4. Model with mathematics. 5. Use appropriate tools strategically.
Lesson #30	Not a standard in Grade 2. First seen in Grade 5 standards.			4. Model with mathematics.

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	Domain	Cluster	Alabama Mathematics Standard	Mathematical Practices
Lesson #1	Operations with Numbers: Base Ten	Use place value understanding and properties of operations to perform multi-digit arithmetic.	11. Use various strategies to add and subtract fluently within 1000.	5. Use appropriate tools strategically.
Lesson #2	Operations with Numbers: Base Ten	Use place value understanding and properties of operations to perform multi-digit arithmetic.	6. Explain that the three digits of a three-digit number represent amounts of hundreds, tens, and ones. a. Explain the following three-digit numbers as special cases: 100 can be thought of as a bundle of ten tens, called a "hundred," and 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).	1. Make sense of problems and persevere in solving them. 4. Model with mathematics.
Lesson #3	Operations with Numbers: Base Ten	Use place value understanding and properties of operations to perform multi-digit arithmetic.	11. Use various strategies to add and subtract fluently within 1000.	5. Use appropriate tools strategically.
Lesson #4	Measurement	Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	18. Tell and write time to the nearest minute; measure time intervals in minutes (within 90 minutes.) a. Solve real-world problems involving addition and subtraction of time intervals in minutes by representing the problem on a number line diagram.	2. Reason abstractly and quantitatively. 8. Look for and express regularity in repeated reasoning.
Lesson #5	Operations and Algebraic Thinking	Represent and solve problems involving multiplication and division.	1. Illustrate the product of two whole numbers as equal groups by identifying the number of groups and the number in each group and represent as a written expression.	1. Make sense of problems and persevere in solving them. 4. Model with mathematics.
Lesson #6	Operations and Algebraic Thinking	Represent and solve problems involving multiplication and division.	1. Illustrate the product of two whole numbers as equal groups by identifying the number of groups and the number in each group and represent as a written expression.	4. Model with mathematics.
Lesson #7	Operations and Algebraic Thinking	Solve problems involving the four operations and identify and explain patterns in arithmetic	8. Determine and justify solutions for two-step word problems using the four operations and write an equation with a letter standing for the unknown quantity. Determine reasonableness of answers using number sense, context, mental computation, and estimation strategies including rounding.	4. Model with mathematics.
Lesson #8	Operations and Algebraic Thinking	Solve problems involving the four operations and identify and explain patterns in arithmetic	8. Determine and justify solutions for two-step word problems using the four operations and write an equation with a letter standing for the unknown quantity. Determine reasonableness of answers using number sense, context, mental computation, and estimation strategies including rounding.	1. Make sense of problems and persevere in solving them. 3. Construct viable arguments and critique the reasoning of others.
Lesson #9	Operations and Algebraic Thinking	Represent and solve problems involving multiplication and division.	1. Illustrate the product of two whole numbers as equal groups by identifying the number of groups and the number in each group and represent as a written expression.	1. Make sense of problems and persevere in solving them.
Lesson #10	Operations and Algebraic Thinking	Solve problems involving the four operations and identify and explain patterns in arithmetic	8. Determine and justify solutions for two-step word problems using the four operations and write an equation with a letter standing for the unknown quantity. Determine reasonableness of answers using number sense, context, mental computation, and estimation strategies including rounding.	3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics.
Lesson #11	Operations and Algebraic Thinking	Solve problems involving the four operations and identify and explain patterns in arithmetic	8. Determine and justify solutions for two-step word problems using the four operations and write an equation with a letter standing for the unknown quantity. Determine reasonableness of answers using number sense, context, mental computation, and estimation strategies including rounding.	3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics.
Lesson #12	Operations and Algebraic Thinking	Represent and solve problems involving multiplication and division.	4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers.	3. Construct viable arguments and critique the reasoning of others.

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	Domain	Cluster	Alabama Mathematics Standard	Mathematical Practices
Lesson #13	Operations and Algebraic Thinking	Solve problems involving the four operations and identify and explain patterns in arithmetic	8. Determine and justify solutions for two-step word problems using the four operations and write an equation with a letter standing for the unknown quantity. Determine reasonableness of answers using number sense, context, mental computation, and estimation strategies including rounding.	4. Model with mathematics.
Lesson #14	Measurement	Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	20. Find the area of a rectangle with whole number side lengths by tiling without gaps or overlays and counting unit squares. 21. Count unit squares (square cm, square m, square in, square ft, and improvised or non-standard units) to determine area.	3. Construct viable arguments and critique the reasoning of others.
Lesson #15	Measurement	Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	20. Find the area of a rectangle with whole number side lengths by tiling without gaps or overlays and counting unit squares.	4. Model with mathematics.
Lesson #16	Measurement	Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	20. Find the area of a rectangle with whole number side lengths by tiling without gaps or overlays and counting unit squares.	4. Model with mathematics.
Lesson #17	Measurement	Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	22. Relate area to the operations of multiplication using real-world problems, concrete materials, mathematical reasoning, and the distributive property.	4. Model with mathematics. 5. Use appropriate tools strategically.
Lesson #18	Measurement	Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	23. Decompose rectilinear figures into smaller rectangles to find the area, using concrete materials. 25. Solve real-world problems involving perimeters of polygons, including finding the perimeter given the side lengths and finding an unknown side length of rectangles.	1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively.
Lesson #19	Measurement	Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	22. Relate area to the operations of multiplication using real-world problems, concrete materials, mathematical reasoning, and the distributive property. 25. Solve real-world problems involving perimeters of polygons, including finding the perimeter given the side lengths and finding an unknown side length of rectangles.	1. Make sense of problems and persevere in solving them. 5. Use appropriate tools strategically.
Lesson #20	Operations with Numbers: Fractions	Develop understanding of fractions as numbers. Denominators are limited to 2, 3, 4, 6, and 8.	13. Demonstrate that a unit fraction represents one part of an area model or length model of a whole that has been equally partitioned; explain that a numerator greater than one indicates the number of unit pieces represented by the fraction.	2. Reason abstractly and quantitatively. 4. Model with mathematics.
Lesson #21	Operations with Numbers: Fractions	Develop understanding of fractions as numbers. Denominators are limited to 2, 3, 4, 6, and 8.	13. Demonstrate that a unit fraction represents one part of an area model or length model of a whole that has been equally partitioned; explain that a numerator greater than one indicates the number of unit pieces represented by the fraction.	2. Reason abstractly and quantitatively. 8. Look for and express regularity in repeated reasoning.
Lesson #22	Operations with Numbers: Fractions	Develop understanding of fractions as numbers. Denominators are limited to 2, 3, 4, 6, and 8.	15. Explain equivalence and compare fractions by reasoning about their size using visual fraction models and number lines. a. Express whole numbers as fractions & recognize fractions that are equivalent to whole number. b. Compare two fractions with the same numerator or with the same denominator by reasoning about their size (recognizing that fractions must refer to the same whole for the comparison to be valid). Record comparisons using < , >, or = and justify conclusions	4. Model with mathematics.
Lesson #23	Operations with Numbers: Fractions	Develop understanding of fractions as numbers. Denominators are limited to 2, 3, 4, 6, and 8.	15. Explain equivalence and compare fractions by reasoning about their size using visual fraction models and number lines. a. Express whole numbers as fractions & recognize fractions that are equivalent to whole number. b. Compare two fractions with the same numerator or with the same denominator by reasoning about their size (recognizing that fractions must refer to the same whole for the comparison to be valid). Record comparisons using < , >, or = and justify conclusions	1. Make sense of problems and persevere in solving them. 5. Use appropriate tools strategically.
Lesson #24	Operations with Numbers: Fractions	Develop understanding of fractions as numbers. Denominators are limited to 2, 3, 4, 6, and 8.	15. Explain equivalence and compare fractions by reasoning about their size using visual fraction models and number lines. a. Express whole numbers as fractions & recognize fractions that are equivalent to whole number. b. Compare two fractions with the same numerator or with the same denominator by reasoning about their size (recognizing that fractions must refer to the same whole for the comparison to be valid). Record comparisons using < , >, or = and justify conclusions	2. Reason abstractly and quantitatively. 4. Model with mathematics.

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	Domain	Cluster	Alabama Mathematics Standard	Mathematical Practices
Lesson #25	Operations with Numbers: Fractions	Develop understanding of fractions as numbers. Denominators are limited to 2, 3, 4, 6, and 8.	15. Explain equivalence and compare fractions by reasoning about their size using visual fraction models and number lines. a. Express whole numbers as fractions & recognize fractions that are equivalent to whole number. b. Compare two fractions with the same numerator or with the same denominator by reasoning about their size (recognizing that fractions must refer to the same whole for the comparison to be valid). Record comparisons using < , >, or = and justify conclusions	3. Construct viable arguments and critique the reasoning of others.
Lesson #26	Operations with Numbers: Fractions	Develop understanding of fractions as numbers. Denominators are limited to 2, 3, 4, 6, and 8.	15. Explain equivalence and compare fractions by reasoning about their size using visual fraction models and number lines. a. Express whole numbers as fractions & recognize fractions that are equivalent to whole number. b. Compare two fractions with the same numerator or with the same denominator by reasoning about their size (recognizing that fractions must refer to the same whole for the comparison to be valid). Record comparisons using < , >, or = and justify conclusions	4. Model with mathematics.
Lesson #27	Data Analysis	Represent and interpret data.	16. For a given or collected set of data, create a scaled (one-to-many) picture graph and scaled bar graph to represent a data set with several categories. b. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled graphs. 17. Measure lengths using rulers marked with halves and fourths of an inch to generate data and create a line plot marked off in appropriate units to display the data.	4. Model with mathematics. 5. Use appropriate tools strategically.
Lesson #28	Measurement	Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	19. Estimate and measure liquid volumes and masses of objects using liters (l), grams (g), and kilograms (kg).	2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others.
Lesson #29	Measurement	Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	19. Estimate and measure liquid volumes and masses of objects using liters (l), grams (g), and kilograms (kg).	3. Construct viable arguments and critique the reasoning of others.
Lesson #30			Not a standard in Grade 3. First seen in Grade 5 standards.	1. Make sense of problems and persevere in solving them. 3. Construct viable arguments and critique the reasoning of others.

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	Domain	Cluster	Alabama Mathematics Standard	Mathematical Practices
Lesson #1	Operations and Algebraic Thinking	Solve problems with whole numbers using the four operations.	3. Determine and justify solutions for multi-step word problems, including problems where remainders must be interpreted. a. Write equations to show solutions for multi-step word problems with a letter standing for the unknown quantity. b. Determine reasonableness of answers for multi-step word problems, using mental computation and estimation strategies including rounding.	1. Make sense of problems and persevere in solving them.
Lesson #2	Operations and Algebraic Thinking	Solve problems with whole numbers using the four operations.	6. Explain that the three digits of a three-digit number represent amounts of hundreds, tens, and ones. a. Explain the following three-digit numbers as special cases: 100 can be thought of as a bundle of ten tens, called a "hundred," and 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).	1. Make sense of problems and persevere in solving them. 3. Construct viable arguments and critique the reasoning of others.
Lesson #3	Operations and Algebraic Thinking	Solve problems with whole numbers using the four operations.	3. Determine and justify solutions for multi-step word problems, including problems where remainders must be interpreted. a. Write equations to show solutions for multi-step word problems with a letter standing for the unknown quantity. b. Determine reasonableness of answers for multi-step word problems, using mental computation and estimation strategies including rounding.	1. Make sense of problems and persevere in solving them. 3. Construct viable arguments and critique the reasoning of others.
Lesson #4	Operations and Algebraic Thinking	Solve problems with whole numbers using the four operations.	3. Determine and justify solutions for multi-step word problems, including problems where remainders must be interpreted. a. Write equations to show solutions for multi-step word problems with a letter standing for the unknown quantity. b. Determine reasonableness of answers for multi-step word problems, using mental computation and estimation strategies including rounding.	1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively.
Lesson #5	Operations and Algebraic Thinking	Solve problems with whole numbers using the four operations.	3. Determine and justify solutions for multi-step word problems, including problems where remainders must be interpreted. a. Write equations to show solutions for multi-step word problems with a letter standing for the unknown quantity. b. Determine reasonableness of answers for multi-step word problems, using mental computation and estimation strategies including rounding.	1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively.
Lesson #6	Operations and Algebraic Thinking	Gain familiarity with factors and multiples.	4. For whole numbers in the range 1 to 100, find all factor pairs, identifying a number as a multiple of each of its factors. a. Determine whether a whole number in the range 1 to 100 is a multiple of a given one-digit number. b. Determine whether a whole number in the range 1 to 100 is prime or composite.	1. Make sense of problems and persevere in solving them.
Lesson #7	Operations and Algebraic Thinking	Gain familiarity with factors and multiples.	4. For whole numbers in the range 1 to 100, find all factor pairs, identifying a number as a multiple of each of its factors. a. Determine whether a whole number in the range 1 to 100 is a multiple of a given one-digit number. b. Determine whether a whole number in the range 1 to 100 is prime or composite.	1. Make sense of problems and persevere in solving them.
Lesson #8	Operations and Algebraic Thinking	Generate and analyze patterns.	5. Generate and analyze a number or shape pattern that follows a given rule.	1. Make sense of problems and persevere in solving them.
Lesson #9	Operations and Algebraic Thinking	Generate and analyze patterns.	5. Generate and analyze a number or shape pattern that follows a given rule.	1. Make sense of problems and persevere in solving them.
Lesson #10	Operations with Numbers: Base Ten	Generalize place value understanding for multi-digit whole numbers.	7. Read and write multi-digit whole numbers using standard form, word form, and expanded form.	1. Make sense of problems and persevere in solving them.
Lesson #11	Operations with Numbers: Base Ten	Generalize place value understanding for multi-digit whole numbers.	8. Use place value understanding to compare two multi-digit numbers using >, =, and < symbols.	5. Use appropriate tools strategically.
Lesson #12	Operations with Numbers: Base Ten	Generalize place value understanding for multi-digit whole numbers.	9. Round multi-digit whole numbers to any place using place value understanding.	1. Make sense of problems and persevere in solving them. 4. Model with mathematics.

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	Domain	Cluster	Alabama Mathematics Standard	Mathematical Practices
Lesson #13	Operations with Numbers: Base Ten	Use place value understanding & properties of operations to perform multi-digit arithmetic w/ whole numbers.	10. Use place value strategies to fluently add and subtract multi-digit whole numbers and connect strategies to the standard algorithm.	5. Use appropriate tools strategically.
Lesson #14	Operations with Numbers: Base Ten	Use place value understanding and properties of operations to perform multi-digit arithmetic w/ whole numbers.	10. Use place value strategies to fluently add and subtract multi-digit whole numbers and connect strategies to the standard algorithm.	5. Use appropriate tools strategically.
Lesson #15	Operations with Numbers: Base Ten	Use place value understanding & properties of operations to perform multi-digit arithmetic w/ whole numbers.	11. Find the product of two factors (up to four digits by a one-digit number and two two-digit numbers), using strategies based on place value and the properties of operations. a. Illustrate and explain the product of two factors using equations, rectangular arrays, and area models.	4. Model with mathematics. 5. Use appropriate tools strategically.
Lesson #16	Operations with Numbers: Base Ten	Use place value understanding & properties of operations to perform multi-digit arithmetic w/ whole numbers.	11. Find the product of two factors (up to four digits by a one-digit number and two two-digit numbers), using strategies based on place value and the properties of operations. a. Illustrate and explain the product of two factors using equations, rectangular arrays, and area models.	4. Model with mathematics. 5. Use appropriate tools strategically.
Lesson #17	Operations with Numbers: Base Ten	Use place value understanding and properties of operations to perform multi-digit arithmetic with whole numbers.	12. Use strategies based on place value, properties of operations, and/or the relationship between multiplication and division to find whole-number quotients and remainders with one-digit divisors and up to four-digit dividends. a. Illustrate and/or explain quotients using equations, rectangular arrays, and/or area models.	4. Model with mathematics. 5. Use appropriate tools strategically.
Lesson #18	Operations with Numbers: Fractions	Extend understanding of fraction equivalence and ordering.	13. Using area and length fraction models, explain why one fraction is equivalent to another, taking into account that the number and size of the parts differ even though the two fractions themselves are the same size. a. Apply principles of fraction equivalence to recognize and generate equivalent fractions.	3. Construct viable arguments and critique the reasoning of others. 5. Use appropriate tools strategically.
Lesson #19	Operations with Numbers: Fractions	Extend understanding of fraction equivalence and ordering.	13. Using area and length fraction models, explain why one fraction is equivalent to another, taking into account that the number and size of the parts differ even though the two fractions themselves are the same size. a. Apply principles of fraction equivalence to recognize and generate equivalent fractions.	3. Construct viable arguments and critique the reasoning of others. 5. Use appropriate tools strategically.
Lesson #20	Operations with Numbers: Fractions	Extend understanding of fraction equivalence and ordering.	14. Compare two fractions with different numerators and different denominators using concrete models, benchmarks (0, ½, 1), common denominators, and/or common numerators, recording the comparisons with symbols >, =, or <, and justifying the conclusions. a. Explain that comparison of two fractions is valid only when the two fractions refer to the same whole.	3. Construct viable arguments and critique the reasoning of others. 5. Use appropriate tools strategically.
Lesson #21	Operations with Numbers: Fractions	Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	15. Model and justify decompositions of fractions and explain addition and subtraction of fractions as joining or separating parts referring to the same whole. a. Decompose a fraction as a sum of unit fractions and as a sum of fractions with the same denominator in more than one way using area models, length models, and equations. b. Add and subtract fractions and mixed numbers with like denominators using fraction equivalence, properties of operations, and the relationship between addition and subtraction. c. Solve word problems involving addition and subtraction of fractions and mixed numbers having like denominators, using drawings, visual fraction models, and equations to represent the problem.	4. Model with mathematics.. 5. Use appropriate tools strategically.
Lesson #22	Operations with Numbers: Fractions	Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	15. Model and justify decompositions of fractions and explain addition and subtraction of fractions as joining or separating parts referring to the same whole. a. Decompose a fraction as a sum of unit fractions and as a sum of fractions with the same denominator in more than one way using area models, length models, and equations. b. Add and subtract fractions and mixed numbers with like denominators using fraction equivalence, properties of operations, and the relationship between addition and subtraction. c. Solve word problems involving addition and subtraction of fractions and mixed numbers having like denominators, using drawings, visual fraction models, and equations to represent the problem.	5. Use appropriate tools strategically.

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Level 4

	Domain	Cluster	Alabama Mathematics Standard	Mathematical Practices
Lesson #23	Operations with Numbers: Fractions	Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	15. Model and justify decompositions of fractions and explain addition and subtraction of fractions as joining or separating parts referring to the same whole. a. Decompose a fraction as a sum of unit fractions and as a sum of fractions with the same denominator in more than one way using area models, length models, and equations. b. Add and subtract fractions and mixed numbers with like denominators using fraction equivalence, properties of operations, and the relationship between addition and subtraction. c. Solve word problems involving addition and subtraction of fractions and mixed numbers having like denominators, using drawings, visual fraction models, and equations to represent the problem.	4. Model with mathematics.
Lesson #24	Operations with Numbers: Fractions	Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	16. Apply and extend previous understandings of multiplication to multiply a whole number times a fraction. b. Extend previous understanding of multiplication to multiply a whole number times any fraction less than one.	7. Look for and make use of structure.
Lesson #25	Operations with Numbers: Fractions	Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	16. Apply and extend previous understandings of multiplication to multiply a whole number times a fraction. a. Model and explain how a non-unit fraction can be represented by a whole number times the unit fraction.	1. Make sense of problems and persevere in solving them.
Lesson #26	Operations with Numbers: Fractions	Understand decimal notation for fractions, and compare decimal fractions.	17. Express, model, and explain the equivalence between fractions with denominators of 10 & 100.	1. Make sense of problems and persevere in solving them.
Lesson #27	Operations with Numbers: Fractions	Understand decimal notation for fractions, and compare decimal fractions.	17. Express, model, and explain the equivalence between fractions with denominators of 10 & 100. 18. Use models and decimal notation to represent fractions with denominators of 10 and 100.	4. Model with mathematics.
Lesson #28	Measurement	Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	23. Apply area and perimeter formulas for rectangles in real-world and mathematical situations.	2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others.
Lesson #29	Measurement	Draw and identify lines and angles, and identify shapes by properties of their lines and angles.	27. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines, and identify these in two-dimensional figures.	2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others.
Lesson #30		Not a standard in Grade 3. First seen in Grade 5 standards.		2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others.

Focused Mathematics Intervention and Alabama Course of Study
Level 5

	Domain	Cluster	Alabama Mathematics Standard	Mathematical Practices
Lesson #1	Operations and Algebraic Thinking	Write and interpret numerical expressions.	1. Write, explain, and evaluate simple numerical expressions involving the four operations to solve up to two-step problems. Include expressions involving parentheses, brackets, or braces, using commutative, associative, and distributive properties.	5. Use appropriate tools strategically.
Lesson #2	Operations with Numbers: Base Ten	Perform operations with multi-digit whole numbers and decimals to hundredths.	6. Explain that the three digits of a three-digit number represent amounts of hundreds, tens, ones. a. Explain the following three-digit numbers as special cases: 100 can be thought of as a bundle of ten tens, called a "hundred," and 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).	1. Make sense of problems and persevere in solving them. 3. Construct viable arguments and critique the reasoning of others.
Lesson #3	Operations with Numbers: Fractions	Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	13. Interpret multiplication as scaling (resizing). b. Explain why multiplying a given number by a fraction greater than 1 results in a product greater than the given number and relate the principle of fraction equivalence. c. Explain why multiplying a given number by a fraction less than 1 results in a product smaller than the given number and relate the principle of fraction equivalence.	2. Reason abstractly and quantitatively. 8. Look for and express regularity in repeated reasoning.
Lesson #4	Operations with Numbers: Base Ten	Perform operations with multi-digit whole numbers and decimals to hundredths.	6. Fluently multiply multi-digit whole numbers using the standard algorithm.	1. Make sense of problems and persevere in solving them.
Lesson #5	Operations with Numbers: Base Ten	Understand the place value system.	4. Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form. b. Compare two decimals to thousandths based on the meaning of the digits in each place, using >, =, and < to record the results of comparisons.	1. Make sense of problems and persevere in solving them. 5. Use appropriate tools strategically.
Lesson #6	Operations with Numbers: Base Ten	Understand the place value system.	4. Read, write, and compare decimals to thousandths. a. Read & write decimals to thousandths using base-ten numerals, number names & expanded form. b. Compare two decimals to thousandths based on the meaning of the digits in each place, using >, =, and < to record the results of comparisons.	1. Make sense of problems and persevere in solving them. 5. Use appropriate tools strategically.
Lesson #7	Operations with Numbers: Base Ten	Perform operations with multi-digit whole numbers and decimals to hundredths.	6. Fluently multiply multi-digit whole numbers using the standard algorithm.	5. Use appropriate tools strategically.
Lesson #8	Operations with Numbers: Base Ten	Perform operations with multi-digit whole numbers and decimals to hundredths.	7. Use strategies based on place value, properties of operations, and/or the relationship between multiplication and division to find whole-number quotients and remainders with up to four-digit dividends and two-digit divisors. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	5. Use appropriate tools strategically.
Lesson #9	Operations with Numbers: Base Ten	Perform operations with multi-digit whole numbers and decimals to hundredths.	8. Add, subtract, multiply, and divide decimals to hundredths using strategies based on place value, properties of operations, and/or the relationships between addition/subtraction and multiplication/division; relate the strategy to a written method, and explain the reasoning used. a. Use concrete models and drawings to solve problems with decimals to hundredths. b. Solve problems in a real-world context with decimals to hundredths.MA.5.NSO.2.3 Add and subtract multi-digit numbers with decimals to the thousandths, including using a standard algorithm with procedural fluency.	4. Model with mathematics. 5. Use appropriate tools strategically.
Lesson #10	Operations with Numbers: Base Ten	Perform operations with multi-digit whole numbers and decimals to hundredths.	7. Use strategies based on place value, properties of operations, and/or the relationship between multiplication and division to find whole-number quotients and remainders with up to four-digit dividends and two-digit divisors. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	1. Make sense of problems and persevere in solving them. 5. Use appropriate tools strategically.
Lesson #11	Operations with Numbers: Base Ten	Perform operations with multi-digit whole numbers and decimals to hundredths.	7. Use strategies based on place value, properties of operations, and/or the relationship between multiplication and division to find whole-number quotients and remainders with up to four-digit dividends and two-digit divisors. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	1. Make sense of problems and persevere in solving them. 5. Use appropriate tools strategically.

Focused Mathematics Intervention and Alabama Course of Study
Level 5

	Domain	Cluster	Alabama Mathematics Standard	Mathematical Practices
Lesson #12	Operations with Numbers: Base Ten	Perform operations with multi-digit whole numbers and decimals to hundredths.	7. Use strategies based on place value, properties of operations, and/or the relationship between multiplication and division to find whole-number quotients and remainders with up to four-digit dividends and two-digit divisors. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	2. Reason abstractly and quantitatively. 8. Look for and express regularity in repeated reasoning.
Lesson #13	Operations with Numbers: Fractions	Use equivalent fractions as a strategy to add and subtract fractions.	10. Add and subtract fractions and mixed numbers with unlike denominators, using fraction equivalence to calculate a sum or difference of fractions or mixed numbers with like denominators.	4. Model with mathematics.
Lesson #14	Operations with Numbers: Fractions	Use equivalent fractions as a strategy to add and subtract fractions.	10. Add and subtract fractions and mixed numbers with unlike denominators, using fraction equivalence to calculate a sum or difference of fractions or mixed numbers with like denominators.	4. Model with mathematics.
Lesson #15	Operations with Numbers: Fractions	Use equivalent fractions as a strategy to add and subtract fractions.	10. Add and subtract fractions and mixed numbers with unlike denominators, using fraction equivalence to calculate a sum or difference of fractions or mixed numbers with like denominators.	5. Use appropriate tools strategically.
Lesson #16	Operations with Numbers: Fractions	Use equivalent fractions as a strategy to add and subtract fractions.	10. Add and subtract fractions and mixed numbers with unlike denominators, using fraction equivalence to calculate a sum or difference of fractions or mixed numbers with like denominators.	4. Model with mathematics.
Lesson #17	Operations with Numbers: Fractions	Use equivalent fractions as a strategy to add and subtract fractions.	10. Add and subtract fractions and mixed numbers with unlike denominators, using fraction equivalence to calculate a sum or difference of fractions or mixed numbers with like denominators.	4. Model with mathematics.
Lesson #18	Operations with Numbers: Fractions	Use equivalent fractions as a strategy to add and subtract fractions.	10. Add and subtract fractions and mixed numbers with unlike denominators, using fraction equivalence to calculate a sum or difference of fractions or mixed numbers with like denominators.	2. Reason abstractly and quantitatively. 4. Model with mathematics.
Lesson #19	Operations with Numbers: Fractions	Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	11. Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers. a. Model and interpret a fraction as division of the numerator by the denominator b. Use visual fraction models, drawings, or equations to represent word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers	4. Model with mathematics.
Lesson #20	Operations with Numbers: Fractions	Use equivalent fractions as a strategy to add and subtract fractions.*	10. Add and subtract fractions and mixed numbers with unlike denominators, using fraction equivalence to calculate a sum or difference of fractions or mixed numbers with like denominators. 14. Model and solve real-world problems involving multiplication of fractions and mixed numbers using visual fraction models, drawings, or equations to represent the problem.	1. Make sense of problems and persevere in solving them. 4. Model with mathematics.
Lesson #21	Operations with Numbers: Base Ten Operations with Numbers: Fractions	Perform operations with multi-digit whole numbers and decimals to hundredths.*	8. Add, subtract, multiply, and divide decimals to hundredths using strategies based on place value, properties of operations, and/or the relationships between addition/subtraction and multiplication/division; relate the strategy to a written method, and explain the reasoning used. b. Solve problems in a real-world context with decimals to hundredths. 14. Model and solve real-world problems involving multiplication of fractions and mixed numbers using visual fraction models, drawings, or equations to represent the problem.	2. Reason abstractly and quantitatively. 8. Look for and express regularity in repeated reasoning.
Lesson #22	Operations with Numbers: Base Ten Operations with Numbers: Fractions	Perform operations with multi-digit whole numbers and decimals to hundredths.*	8. Add, subtract, multiply, and divide decimals to hundredths using strategies based on place value, properties of operations, and/or the relationships between addition/subtraction and multiplication/division; relate the strategy to a written method, and explain the reasoning used. b. Solve problems in a real-world context with decimals to hundredths. 14. Model and solve real-world problems involving multiplication of fractions and mixed numbers using visual fraction models, drawings, or equations to represent the problem.	2. Reason abstractly and quantitatively. 4. Model with mathematics.

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Level 5

	Domain	Cluster	Alabama Mathematics Standard	Mathematical Practices
Lesson #23	Operations with Numbers: Fractions	Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	15. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.	1. Make sense of problems and persevere in solving them. 4. Model with mathematics.
Lesson #24	Operations with Numbers: Fractions	Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	15. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. a. Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions and illustrate using visual fraction models, drawings, and equations to represent the problem.	1. Make sense of problems and persevere in solving them. 4. Model with mathematics.
Lesson #25	Operations with Numbers: Fractions	Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	15. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. a. Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions and illustrate using visual fraction models, drawings, and equations to represent the problem.	1. Make sense of problems and persevere in solving them. 4. Model with mathematics.
Lesson #26	Measurement	Convert like measurement units within a given measurement system.	17. Convert among different-sized standard measurement units within a given measurement system and use these conversions in solving multi-step, real-world problems.	1. Make sense of problems and persevere in solving them.
Lesson #27	Measurement	Geometric measurement: understand concepts of volume & relate volume to multiplication & addition.	18. Identify volume as an attribute of solid figures, and measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised (non-standard) units. a. Pack a solid figure without gaps or overlaps using n unit cubes to demonstrate volume as n cubic units.	2. Reason abstractly and quantitatively. 4. Model with mathematics.
Lesson #28	Measurement	Geometric measurement: understand concepts of volume & relate volume to multiplication & addition.	19. Relate volume to the operations of multiplication and addition, and solve real-world and mathematical problems involving volume. b. Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems.	2. Reason abstractly and quantitatively. 4. Model with mathematics.
Lesson #29	Geometry	Graph points on the coordinate plane to solve real-world and mathematical problems.	20. Graph points in the first quadrant of the coordinate plane, and interpret coordinate values of points to represent real-world and mathematical problems.	1. Make sense of problems and persevere in solving them. 3. Construct viable arguments and critique the reasoning of others.
Lesson #30	Geometry	Graph points on the coordinate plane to solve real-world and mathematical problems.	20. Graph points in the first quadrant of the coordinate plane, and interpret coordinate values of points to represent real-world and mathematical problems.	1. Make sense of problems and persevere in solving them.

* Addresses additional cluster: Apply and extend previous understandings of multiplication and division to multiply and divide fractions.