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GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
MATHEMATICS		
KINDERGARTEN		
NUMERICAL REASONING—counting, money, place value, numbers to 20, addition, subtraction and fluency		
K.NR.1: Demonstrate and explain the relationship between numbers and quantities up to 20; connect counting to cardinality (the last number counted represents the total quantity in a set).		
<p>K.NR.1.1 Count up to 20 objects in a variety of structured arrangements and up to 10 objects in a scattered arrangement.</p>	<ul style="list-style-type: none"> • Counting Songs • Number Songs • Make and Count Groups • Number Counting • Number Instruction • Numbers Review • One-to-one Correspondence 	<ul style="list-style-type: none"> • How many?.pdf: Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. <ul style="list-style-type: none"> - Hoop Addition
<p>K.NR.1.2 When counting objects, explain that the last number counted represents the total quantity in a set (cardinality), regardless of the arrangement and order.</p>	<ul style="list-style-type: none"> • Make and Count Groups • Number Counting • Number Instruction • Match Numbers • One-to-One Correspondence 	<ul style="list-style-type: none"> • Object Counting Grouping.pdf: Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. <ul style="list-style-type: none"> - Mixed Up Counting
<p>K.NR.1.3 Given a number from 1-20, identify the number that is one more or one less.</p>	<ul style="list-style-type: none"> • Songs: Counting Backward; Counting On • Book: A Space Adventure • Count On by 1 • Count Down • Counting Back • Order Numbers • Number Chart 	
<p>K.NR.1.4 Identify pennies, nickels, and dimes and know their name and value.</p>	<ul style="list-style-type: none"> • Song: Save Your Pennies • Coin Identification • Coin Value • Count Dimes, Nickels, and Pennies • Count Nickels and Pennies or Dimes and Pennies 	

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K.NR.2: Use count sequences within 100 to count forward and backward in sequence.		
<p>K.NR.2.1 Count forward to 100 by tens and ones and backward from 20 by ones.</p>	<ul style="list-style-type: none"> • Songs: Counting On; Counting Backward; Skip Counting • Book: A Space Adventure • Number Songs • Counting Songs • Number Counting • Number Instruction • Skip Count by 10 • Count Down • Counting Back 	<ul style="list-style-type: none"> • Count to 100 by ones and tens.pdf: Count to 100 by ones and tens. <ul style="list-style-type: none"> - Missing Numbers - Count On By 1 - Numbers 1-5 - Numbers 6-10 - Math Newsletters - Count By 10s - Numbers 60-69 - I Can Count to 100
<p>K.NR.2.2 Count forward beginning from any number within 100 and count backward from any number within 20.</p>	<ul style="list-style-type: none"> • Songs: Counting On; Counting Backward • Book: A Space Adventure • Counting Songs • Number Counting • Number Instruction • Count Down • Counting Back 	<ul style="list-style-type: none"> • Count forward.pdf: Count forward beginning with a given number within the known sequence. <ul style="list-style-type: none"> - Let's Count On - Toss and Count - Count On by 1
K.NR.3: Use place value understanding to compose and decompose numbers from 11-19.		
<p>K.NR.3.1 Describe numbers from 11 to 19 by composing (putting together) and decomposing (breaking apart) the numbers into ten ones and some more ones.</p>	<ul style="list-style-type: none"> • Place Value 	<ul style="list-style-type: none"> • Tens and ones.pdf: Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation; understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. <ul style="list-style-type: none"> - Place Value 11-19
K.NR.4: Identify, write, represent, and compare numbers up to 20.		
<p>K.NR.4.1 Identify written numerals 0-20 and represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).</p>	<ul style="list-style-type: none"> • Math Books • Counting Songs • Number Songs • Number Counting • Number Instruction 	<ul style="list-style-type: none"> • Write numbers 0-20.pdf: Write numbers from 0 to 20. Represent a number of objects with a written numeral. <ul style="list-style-type: none"> - Numbers Practice - Numbers - Add groups - Count on by 1 - Number Writing Practice

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
K.NR.4: Identify, write, represent, and compare numbers up to 20 <i>continued</i>.		
<p>K.NR.4.2 Compare two sets of up to 10 objects and identify whether the number of objects in one group is more or less than the other group, using the words “greater than,” “less than,” or “the same as”.</p>	<ul style="list-style-type: none"> • Song: Greater Than, Less Than • Book: For the Birds • Greater Than, Less Than • More Than, Fewer Than • More Than • Fewer Than • Make and Count Groups 	<ul style="list-style-type: none"> • Greater, less, or equal.pdf: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. <ul style="list-style-type: none"> - Beans and More - More Than Buttons - Short Names, Long Names - Noodle Necklaces - Groups Do Count! - More Than, Fewer Than, Equal - Which Has More? - Fewer Than
K.NR.5: Explain the concepts of addition, subtraction, and equality and use these concepts to solve real-life problems within 10.		
<p>K.NR.5.1 Compose (put together) and decompose (break apart) numbers up to 10 using objects and drawings.</p>	<ul style="list-style-type: none"> • Songs: Addition; On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction • Book: Five Delicious Muffins • Make and Count Groups • Add Groups • Subtract Groups • Act Out Addition • Act Out Subtraction 	<ul style="list-style-type: none"> • Decompose numbers.pdf: Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation. <ul style="list-style-type: none"> - Addition Cubes - Fact Families
<p>K.NR.5.2 Represent addition and subtraction within 10 from a given authentic situation using a variety of representations and strategies.</p>	<ul style="list-style-type: none"> • Songs: Addition; On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction • Book: Five Delicious Muffins • Add Groups • Subtract Groups • Minuends • Sums • Act Out Addition • Act Out Subtraction 	<ul style="list-style-type: none"> • Addition and subtraction word problems.pdf: Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. <ul style="list-style-type: none"> - Additions Stories - Act It Out Stories - Manipulative Stories - Edible Stories - One, Two, Three, Show - Circus Subtraction - Partner Subtraction - Farmer’s Market - Green and Speckled Frogs - Cars and Trucks Subtraction - Yummy Subtraction - Act Out Addition - Act Out Subtraction

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K.NR.5: Explain the concepts of addition, subtraction, and equality and use these concepts to solve real-life problems within 10 <i>continued</i>.		
K.NR.5.3 Use a variety of strategies to solve addition and subtraction problems within 10.	<ul style="list-style-type: none"> • Songs: Addition; On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction • Book: Five Delicious Muffins • Add Groups • Subtract Groups • Minuends • Sums • Act Out Addition • Act Out Subtraction 	
K.NR.5.4 Fluently add and subtract within 5 using a variety of strategies to solve practical, mathematical problems.	<ul style="list-style-type: none"> • Songs: Addition; On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction • Book: Five Delicious Muffins • Add Groups • Subtract Groups • Minuends • Sums • Act Out Addition • Act Out Subtraction 	
PATTERNING & ALGEBRAIC REASONING—repeating patterns and time		
K.PAR.6: Explain, extend, and create repeating patterns with a repetition, not exceeding 4 and describe patterns involving the passage of time.		
K.PAR.6.1 Create, extend, and describe repeating patterns with numbers and shapes, and explain the rationale for the pattern.	<ul style="list-style-type: none"> • Song: Train Station Pattern • Patterns • Pattern: AB; ABB; ABC • Number Chart • Number Patterns 	
K.PAR.6.2 Describe patterns involving the passage of time using words and phrases related to actual events.	<ul style="list-style-type: none"> • Book: Mr. Romano's Secret, A Time Story • Weather • Calendar/Graph Weather • Observe a Simple System • First, Next, and Last • Sequence Events 	

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MEASUREMENT & DATA REASONING—attributes of objects, classifying objects		
K.MDR.7: Observe, describe, and compare the physical and measurable attributes of objects and analyze graphical displays of data.		
<p>K.MDR.7.1 Directly compare, describe, and order common objects, using measurable attributes (length, height, width, or weight) and describe the difference.</p>	<ul style="list-style-type: none"> • Songs: Savanna Size, Measuring Plants • Capacity • Length • Weight • Big and Little • Tall and Short • Heavy and Light • Size • Order Size 	<ul style="list-style-type: none"> • Measurable attributes.pdf: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. <ul style="list-style-type: none"> - Filling Table - Order It Up - Straw Rulers - Measuring Walk - Heavy or Light - Make A Balance - Measurable Attributes
<p>K.MDR.7.2 Classify and sort up to ten objects into categories by an attribute; count the number of objects in each category and sort the categories by count.</p>	<ul style="list-style-type: none"> • Songs: Same and Different; All Sorts of Laundry • Book: Buttons, Buttons • Sort • Make and Count Groups 	<ul style="list-style-type: none"> • Classifying objects.pdf: Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. <ul style="list-style-type: none"> - Let's Sort - Sort
<p>K.MDR.7.3 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.</p>	<ul style="list-style-type: none"> • Song: Push and Pull • Book: Mr. Mario's Neighborhood • Science Investigation 	
GEOMETRIC & SPATIAL REASONING—2D and 3D shapes, relative locations, attributes		
K.GSR.8: Identify, describe, and compare basic shapes encountered in the environment, and form two-dimensional shapes and three-dimensional figures.		
<p>K.GSR.8.1 Identify, sort, classify, analyze, and compare two-dimensional shapes and three-dimensional figures, in different sizes and orientations, using informal language to describe their similarities, differences, number of sides and vertices, and other attributes.</p>	<ul style="list-style-type: none"> • Song: Corners and Sides • Simple Shapes • Solid Shapes • Space Shapes • Congruence • Tangrams • Similar Figures 	<ul style="list-style-type: none"> • Compare shapes.pdf: Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length). <ul style="list-style-type: none"> - Comparing Shapes

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K.GSR.8: Identify, describe, and compare basic shapes encountered in the environment, and form two-dimensional shapes and three-dimensional figures <i>continued</i> .		
K.GSR.8.2 Describe the relative location of an object using positional words.	<ul style="list-style-type: none"> • Songs: Position Cat; Kites; Get Over the Bugs • Book: Up In the Air • Position • Over, Under, Above, Below • Inside, Outside, Between • Above, Below, Next to, On 	<ul style="list-style-type: none"> • Describing objects.pdf: Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. <ul style="list-style-type: none"> - Shapes Scavenger Hunt
K.GSR.8.3 Use basic shapes to represent specific shapes found in the environment by creating models and drawings.	<ul style="list-style-type: none"> • Songs: Kites; Shapes, Shapes, Shapes • Books: The Shape of Things; Imagination Shapes • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Rhombus • Simple Shapes • Solid Shapes • World Shapes 	<ul style="list-style-type: none"> • Model shapes.pdf: Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. <ul style="list-style-type: none"> - Building Shapes
K.GSR.8.4 Use two or more basic shapes to form larger shapes.	<ul style="list-style-type: none"> • Geoboard • Tangrams 	<ul style="list-style-type: none"> • Form larger shapes.pdf: Compose simple shapes to form larger shapes. <ul style="list-style-type: none"> - Combining Shapes
1ST GRADE		
NUMERICAL REASONING—counting, numbers, equality, place value, addition, subtraction		
1.NR.1: Extend the count sequence to 120. Read, write, and represent numerical values to 120 and compare numerical values to 100.		
1.NR.1.1 Count within 120, forward and backward, starting at any number. In this range, read and write numerals and represent a number of objects with a written numeral.	<ul style="list-style-type: none"> • Songs: Counting On; Counting Backward • Book: A Space Adventure • Counting Songs • Number Counting • Number Instruction • Count On • Count Down • Counting Back 	<ul style="list-style-type: none"> • Count to 120.pdf: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. <ul style="list-style-type: none"> - Mystery Numbers - I Can Write Numbers to 99 - Numbers 20-29; 30-39; 40-49; 50-59; 60-69 - Counting to 89 - Counting Charts: - I Can Count to 50; 100; 99; 120
1.NR.1.2 Explain that the two digits of a 2-digit number represent the amounts of tens and ones.	<ul style="list-style-type: none"> • Place Value • Place Value of 2-digit Numbers 	<ul style="list-style-type: none"> • Ten groupings.pdf: The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). <ul style="list-style-type: none"> - Toss It

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1.NR.1: Extend the count sequence to 120. Read, write, and represent numerical values to 120 and compare numerical values to 100 <i>continued</i> .		
1.NR.1.3 Compare and order whole numbers up to 100 using concrete models, drawings, and the symbols $>$, $=$, and $<$.	<ul style="list-style-type: none"> • Place Value • Greater Than, Less Than (2-digit Numbers) 	<ul style="list-style-type: none"> • Compare two-digit numbers.pdf: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$. <ul style="list-style-type: none"> - More or Less Spinner - Catch Me if You Can! - What Are You Looking For? - Two-Pile Sort
1.NR.2: Explain the relationship between addition and subtraction and apply the properties of operations to solve real-life addition and subtraction problems within 20.		
1.NR.2.1 Use a variety of strategies to solve addition and subtraction problems within 20.	<ul style="list-style-type: none"> • Songs: Fact Families; Counting On • Books: Facts about Families • Addition and Subtraction Fact Families • Addition Sentences • Subtraction Sentences • Commutative Property of Addition • Addition and Subtraction Relationship • Missing Addends • Missing Minuends and Subtrahends • Add 3 One-digit Numbers • Subtraction Patterns 	<ul style="list-style-type: none"> • Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. <ul style="list-style-type: none"> - The Three Little Bears - Fact Family Bingo - A Graph of Fact Families - Bean Facts - Draw a Picture - Addition - Number Pyramid - Subtraction Sentences - Model the Story - Fact Families
1.NR.2.2 Use pictures, drawings, and equations to develop strategies for addition and subtraction within 20 by exploring strings of related problems.	<ul style="list-style-type: none"> • Songs: Fact Families; Counting On • Books: Facts about Families • Addition and Subtraction Fact Families • Addition Sentences • Subtraction Sentences • Commutative Property of Addition • Addition and Subtraction Relationship • Missing Addends • Missing Minuends and Subtrahends • Add 3 One-digit Numbers • Subtraction Patterns 	<ul style="list-style-type: none"> • Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. <ul style="list-style-type: none"> - The Three Little Bears - Fact Family Bingo - A Graph of Fact Families - Bean Facts - Draw a Picture - Addition - Number Pyramid - Subtraction Sentences - Model the Story - Fact Families

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<p>1.NR.2: Explain the relationship between addition and subtraction and apply the properties of operations to solve real-life addition and subtraction problems within 20 <i>continued</i>.</p>		
<p>1.NR.2.3 Recognize the inverse relationship between subtraction and addition within 20 and use this inverse relationship to solve authentic problems.</p>	<ul style="list-style-type: none"> • Song: Fact Families • Book: Facts About Families • Addition and Subtraction Fact Families • Addition and Subtraction Relationship • Commutative Property of Addition • Addition Sentences • Subtraction Sentences • Missing Addends • Missing Minuends and Subtrahends 	
<p>1.NR.2.4 Fluently add and subtract within 10 using a variety of strategies.</p>	<ul style="list-style-type: none"> • Songs: Fact Families; Counting On • Books: Facts About Families; Painting by Number • Addition and Subtraction Fact Families • Addition Sentences • Subtraction Sentences • Commutative Property of Addition • Addition and Subtraction Relationship • Missing Addends • Missing Minuends and Subtrahends • Add 3 One-digit Numbers • Subtraction Patterns 	<ul style="list-style-type: none"> • Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. <ul style="list-style-type: none"> - The Three Little Bears - Fact Family Bingo - A Graph of Fact Families - Bean Facts - Draw a Picture - Addition - Number Pyramid - Subtraction Sentences - Model the Story - Fact Families
<p>1.NR.2.5 Use the meaning of the equal sign to determine whether equations involving addition and subtraction are true or false.</p>	<ul style="list-style-type: none"> • Song: Fact Families • Book: Facts About Families • Addition and Subtraction Fact Families • Addition and Subtraction Relationship • Commutative Property of Addition • Addition Sentences • Subtraction Sentences • Greater Than, Less Than • More Than, Fewer Than 	<ul style="list-style-type: none"> • Equal sign.pdf: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. <ul style="list-style-type: none"> - Show Me! - Tricky Total - Domino Addition - Domino Subtraction - Playground Fact Snake

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
1.NR.2: Explain the relationship between addition and subtraction and apply the properties of operations to solve real-life addition and subtraction problems within 20 <i>continued</i>.		
1.NR.2.6 Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.	<ul style="list-style-type: none"> • Addition Sentences • Subtraction Sentences • Addition and Subtraction Fact Families • Missing Addends • Missing Minuends and Subtrahends 	
1.NR.2.7 Apply properties of operations as strategies to solve addition and subtraction problem situations within 20.	<ul style="list-style-type: none"> • Songs: Fact Families; Counting On • Books: Facts About Families; Painting by Number • Addition and Subtraction Fact Families • Addition Sentences • Subtraction Sentences • Commutative Property of Addition • Addition and Subtraction Relationship • Missing Addends • Missing Minuends and Subtrahends • Add 3 One-digit Numbers • Subtraction Patterns 	<ul style="list-style-type: none"> • Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. <ul style="list-style-type: none"> - The Three Little Bears - Fact Family Bingo - A Graph of Fact Families - Bean Facts - Draw a Picture - Addition - Number Pyramid - Subtraction Sentences - Model the Story - Fact Families
PATTERNING & ALGEBRAIC REASONING—repeating patterns, growing, patterns, and shrinking patterns		
1.PAR.3: Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns found in real-life situations.		
1.PAR.3.1 Investigate, create, and make predictions about repeating patterns with a core of up to 3 elements resulting from repeating an operation, as a series of shapes, or a number string.	<ul style="list-style-type: none"> • Song: Train Station Pattern • Patterns • Pattern: AB; ABB; ABC • Number Chart • Number Patterns • Logic Game 	
1.PAR.3.2 Identify, describe, and create growing, shrinking, and repeating patterns based on the repeated addition or subtraction of 1s, 2s, 5s, and 10s.	<ul style="list-style-type: none"> • Song: Skip Counting • Book: Navajo Beads; Jump Rope Rhymes • Skip Count by 2 • Skip Count by 5 • Skip Count by 10 • Number Patterns 	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
GEOMETRIC & SPATIAL REASONING—shapes, attributes, partitions of circles and rectangles		
1.GSR.4: Compose shapes, analyze the attributes of shapes, and relate their parts to the whole.		
<p>1.GSR.4.1 Identify common two-dimensional shapes and three-dimensional figures, sort and classify them by their attributes and build and draw shapes that possess defining attributes.</p>	<ul style="list-style-type: none"> • Songs: Kites; Shapes, Shapes, Shapes; Corners and Sides • Books: The Shape of Things; Imagination Shapes • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Rhombus • Simple Shapes • Solid Shapes • World Shapes 	<ul style="list-style-type: none"> • Shape recognition.pdf: Correctly name shapes regardless of their orientations or overall size. <ul style="list-style-type: none"> - Shapes Scavenger Hunt - Shapes and Positioning
<p>1.GSR.4.2 Compose two-dimensional shapes (rectangles, squares, triangles, half-circles, and quarter-circles) and three-dimensional figures (cubes, rectangular prisms, cones, and cylinders) to create a shape formed of two or more common shapes and compose new shapes from the composite shape.</p>	<ul style="list-style-type: none"> • Song: Kites • Space Shapes • Geoboard • Tangrams 	<ul style="list-style-type: none"> • Form larger shapes.pdf: Compose simple shapes to form larger shapes. <ul style="list-style-type: none"> - Combining Shapes
<p>1.GSR.4.3 Partition circles and rectangles into two and four equal shares.</p>	<ul style="list-style-type: none"> • Song: Fractions • Books: Halves and Fourths and Thirds; Half For You and Half For Me • Equal-part Fractions • Label Parts of Fractions 	<ul style="list-style-type: none"> • Equal shares.pdf: Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares. <ul style="list-style-type: none"> - Make It Equal - Fraction Friends - Fraction Train - Halves, Thirds, Fourths - Equal Parts

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
NUMERICAL REASONING—base ten structure, addition and subtraction within 100		
1.NR.5: Use concrete models, the base ten structure, and properties of operations to add and subtract within 100.		
<p>1.NR.5.1 Use a variety of strategies to solve applicable, mathematical addition and subtraction problems with one- and two-digit whole numbers.</p>	<ul style="list-style-type: none"> • Songs: Fact Families; Counting On • Books: Facts about Families • Addition and Subtraction Fact Families • Addition Sentences • Subtraction Sentences • Commutative Property of Addition • Addition and Subtraction Relationship • Missing Addends • Missing Minuends and Subtrahends • Add 3 One-digit Numbers • Subtraction Patterns 	<ul style="list-style-type: none"> • Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. <ul style="list-style-type: none"> - The Three Little Bears - Fact Family Bingo - A Graph of Fact Families - Bean Facts - Draw a Picture - Addition - Number Pyramid - Subtraction Sentences - Model the Story - Fact Families
<p>1.NR.5.2 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.</p>	<ul style="list-style-type: none"> • Song: Skip Counting • Book: Navajo Beads • Add • Subtract • Add Tens • Subtract Tens • Skip Count by 10 • Number Chart 	<ul style="list-style-type: none"> • Ten more or less.pdf: Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. <ul style="list-style-type: none"> - Ten-O - Toss It - Make a Number - Subtract 10 - Flashcards - Bingo - Addition of Tens

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1.NR.5: Use concrete models, the base ten structure, and properties of operations to add and subtract within 100 <i>continued</i>.		
1.NR.5.3 Add and subtract multiples of 10 within 100.	<ul style="list-style-type: none"> • Addition • Add Tens • Subtract Tens • Use Manipulatives • Add Vertical Squares • Add with Beads • Subtraction Patterns • Subtract • Place Value • Number Chart • Addition and Subtraction Relationship • Add with Regrouping Concept • Add 2-digit and 1-digit Numbers with Regrouping • Add 2-digit Numbers without Regrouping • Add 2-digit Numbers with Regrouping 	<ul style="list-style-type: none"> • Adding within 100.pdf: The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). <ul style="list-style-type: none"> - Drawing Tens - Beans, Beans, and More Beans - Straws and Macaroni - Bean Addition - Adding Tens and Ones - Color Adds Up - Cookies and Milk! - Addition of Two-Digit Numbers - Addition and Subtraction of Large Numbers • Subtracting in 10s.pdf: Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90. <ul style="list-style-type: none"> - Ten-O - Bingo - Subtract Multiples of 10
MEASUREMENT & DATA REASONING—length, time, money		
1.MDR.6: Use appropriate tools to measure, order, and compare intervals of length and time, as well as denominations of money to solve real-life, mathematical problems and answer relevant questions.		
1.MDR.6.1 Estimate, measure, and record lengths of objects using non-standard units, and compare and order up to three objects using the recorded measurements. Describe the objects compared.	<ul style="list-style-type: none"> • Length • Nonstandard Units of Length 	<ul style="list-style-type: none"> • Order by length.pdf: Order three objects by length; compare the lengths of two objects indirectly by using a third object. <ul style="list-style-type: none"> - Estimating Length - A Fruit and Vegetable Measure
1.MDR.6.2 Tell and write time in hours and half-hours using analog and digital clocks, and measure elapsed time to the hour on the hour using a predetermined number line.	<ul style="list-style-type: none"> • Song: Clock Hands • Books: Mr. Romano’s Secret: A Time Story • Tell Time to the Hour • Tell Time to the Half-Hour 	<ul style="list-style-type: none"> • Hours and half-hours.pdf: Tell and write time in hours and half-hours using analog and digital clocks. <ul style="list-style-type: none"> - What Comes After, Before, Or Between? - Make Your Own Clock - Learning to Tell Time - Matching Time - What Numbers Are Missing? - What Time Is It? - Time of Day - Clock flashcards

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<p>1.MDR.6: Use appropriate tools to measure, order, and compare intervals of length and time, as well as denominations of money to solve real-life, mathematical problems and answer relevant questions <i>continued</i>.</p>		
<p>1.MDR.6.3 Identify the value of quarters and compare the values of pennies, nickels, dimes, and quarters.</p>	<ul style="list-style-type: none"> • Songs: Money; Save Your Pennies • Book: Bugs For Sale • Coin Identification • Coin Value • Quarters • Count Dimes, Nickels, and Pennies • Count Quarters, Dimes, Nickels, and Pennies • Count Nickels and Pennies or Dimes and Pennies • Count Coins • Equivalent Sums of Money 	
<p>1.MDR.6.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to compare and order whole numbers.</p>	<ul style="list-style-type: none"> • Song: Graphing • Books: Painting by Number; The Booneville Nine • Graphing • Bar Graphs • Picture Graphs • Use Graphs and Tables • Number Chart • Place Value • Order Numbers • Greater Than, Less Than 	<ul style="list-style-type: none"> • Graphs.pdf: Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. <ul style="list-style-type: none"> - Questions and Answers - Library Book Survey - Playground Survey - Rock Collections - Use Graphs and Tables

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
2ND GRADE		
NUMERICAL REASONING—counting within 1000, place value, addition and subtraction, fluency to 20, developing multiplication through arrays		
2.NR.1: Using the place value structure, explore the count sequences to represent, read, write, and compare numerical values to 1000 and describe basic place-value relationships and structures.		
<p>2.NR.1.1 Explain the value of a three-digit number using hundreds, tens, and ones in a variety of ways.</p>	<ul style="list-style-type: none"> • Song: Place Value • Place Value • Place Value of 3-digit Numbers 	<ul style="list-style-type: none"> • Less than, equal to, or greater than.pdf: Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons. <ul style="list-style-type: none"> - More or Less - The Hands Have It! - Larger or Smaller? - Comparing Number Cards - $<$, $>$, $=$ Cards - Greater Than, Less Than, Equal To
<p>2.NR.1.2 Count forward and backward by ones from any number within 1000. Count forward by fives from multiples of 5 within 1000. Count forward and backward by 10s and 100s from any number within 1000. Count forward by 25s from 0.</p>	<ul style="list-style-type: none"> • Songs: Counting On; Counting Backward; Skip Counting • Books: A Space Adventure; Jump Rope Rhymes • Count on • Count Back • Number Chart • Skip Count by 5 • Skip Count by 10 	<ul style="list-style-type: none"> • Counting within 1000.pdf: Count within 1,000; skip-count by 5s, 10s, and 100s <ul style="list-style-type: none"> - Chart Patterns - My 199; 200; 299; 300; 399; 400; 499; 500; 599; 600; 699; and 700 Picture - 900 Chart
<p>2.NR.1.3 Represent, compare, and order whole numbers to 1000 with an emphasis on place value and equality. Use $>$, $=$, and $<$ symbols to record the results of comparisons.</p>	<ul style="list-style-type: none"> • Sequences of 2-digit Numbers • Sequences of 3-digit Numbers • Greater Than, Less Than (3-digit Numbers) • Number Chart • Place Value • Place Value of 3-digit Numbers • Order Numbers 	<ul style="list-style-type: none"> • Less than, equal to, or greater than.pdf: Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons. <ul style="list-style-type: none"> - More or Less - The Hands Have It! - Larger or Smaller? - Comparing Number Cards - $<$, $>$, $=$ Cards - Greater Than, Less Than, Equal To

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
2.NR.2: Apply multiple part-whole strategies, properties of operations and place value understanding to solve real-life, mathematical problems involving addition and subtraction within 1,000.		
2.NR.2.1 Fluently add and subtract within 20 using a variety of mental, part-whole strategies.	<ul style="list-style-type: none"> • Songs: Fact Families; Doubles • Subtraction Patterns • Addition Facts to 20 	<ul style="list-style-type: none"> • Adding and subtracting within 20.pdf: Fluently add and subtract within 20 using mental strategies. By end of grade 2, know from memory all sums of two one-digit numbers. <i>Sets of flashcards:</i> <ul style="list-style-type: none"> - Addition—horizontal - Subtraction—horizontal - Addition—vertical - Subtraction—vertical - Addition and subtraction—horizontal and vertical
2.NR.2.2 Find 10 more or 10 less than a given three-digit number and find 100 more or 100 less than a given three-digit number.	<ul style="list-style-type: none"> • Skip Count • Place Value • Number Chart • Number Patterns • Mental Math Games 	<ul style="list-style-type: none"> • Mentally adding or subtracting 10 or 100.pdf: Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900. <ul style="list-style-type: none"> - Spin and Solve
2.NR.2.3 Solve problems involving the addition and subtraction of two-digit numbers using part-whole strategies.	<ul style="list-style-type: none"> • Book: Painting by Number • Addition • Subtraction • Missing Addends and Subtrahends • Subtraction Sentences • Addition and Subtraction Facts 	<ul style="list-style-type: none"> • One- and two-step word problems within 100. pdf: Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. <ul style="list-style-type: none"> - Animal Math - Picture Problems - Color the Chart - Think About it Differently - Act it Out - Guess and Check
2.NR.2.4 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	<ul style="list-style-type: none"> • Place Value • Addition and Subtraction Relationship • Commutative Properties of Addition • Addition • Subtraction • Add without Regrouping • Add with Regrouping • Subtract without regrouping • Subtract with Regrouping 	<ul style="list-style-type: none"> • Add and subtract within 100.pdf: Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. <ul style="list-style-type: none"> - Addition of Two-Digit Numbers - Tic Tac Toe - Subtraction of Two-Digit Numbers

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
2.NR.3: Work with equal groups to gain foundations for multiplication through real-life, mathematical problems.		
2.NR.3.1 Determine whether a group (up to 20) has an odd or even number of objects. Write an equation to express an even number as a sum of two equal addends.	<ul style="list-style-type: none"> • Song: Odd Todd and Even Steven • Skip Count by 2 • Addition Facts 	<ul style="list-style-type: none"> • Odd and even recognition.pdf: Determine whether a group of objects (up to 20) has an odd or even number of members. <ul style="list-style-type: none"> - Missing Patterns - Counting by 2s - What's My Number?
2.NR.3.2 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	<ul style="list-style-type: none"> • Addition • Multiply Using Repeated Addition • Multiply Using Arrays 	
PATTERNING & ALGEBRAIC REASONING—patterns up to 20 and addition and subtraction within 1,000		
2.PAR.4: Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns.		
2.PAR.4.1 Identify, describe, and create a numerical pattern resulting from repeating an operation such as addition and subtraction.	<ul style="list-style-type: none"> • Logic Game • Number Chart • Number Sequences and Patterns • Addition and Subtraction Relationship • Addition and Subtraction Fact Families • Subtraction Patterns 	
2.PAR.4.2 Identify, describe, and create growing patterns and shrinking patterns involving addition and subtraction up to 20.	<ul style="list-style-type: none"> • Logic Game • Number Chart • Number Sequences and Patterns • Addition and Subtraction Relationship • Addition and Subtraction Fact Families • Subtraction Patterns 	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
MEASUREMENT & DATA REASONING—length, distance, time, and money		
2.MDR.5: Estimate and measure the lengths of objects and distance to solve problems found in real-life using standard units of measurement, including inches, feet, and yards.		
2.MDR.5.1 Construct simple measuring instruments using unit models. Compare unit models to rulers.	<ul style="list-style-type: none"> • Length • Nonstandard Units of Length • Measurement Tools 	
2.MDR.5.2 Estimate and measure the length of an object or distance to the nearest whole unit using appropriate units and standard measuring tools.	<ul style="list-style-type: none"> • Song: Measuring Plants • Length • Standard Units of Length • Measurement Tools 	<ul style="list-style-type: none"> • Estimating lengths.pdf: Estimate lengths using units of inches, feet, centimeters, and meters. <ul style="list-style-type: none"> - Ready, Set, Measure - Treasure Hunt - Let's Measure in Centimeters! - Let's Measure in Inches! - Measuring Perimeter
2.MDR.5.3 Measure to determine how much longer one object is than another and express the length difference in terms of a standard-length unit.	<ul style="list-style-type: none"> • Length • Standard Units of Length 	<ul style="list-style-type: none"> • Measure length.pdf: Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. <ul style="list-style-type: none"> - Ready, Set, Measure - Treasure Hunt
2.MDR.5.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.	<ul style="list-style-type: none"> • Song: Graphing • Graphing • Bar Graphs • Picture Graphs • Use Graphs and Tables 	<ul style="list-style-type: none"> • Graphs.pdf: Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. <ul style="list-style-type: none"> - Questions and Answers - Library Book Survey - Playground Survey - Rock Collections - Use Graphs and Tables
2.MDR.5.5 Represent whole-number sums and differences within a standard unit of measurement on a number line diagram.	<ul style="list-style-type: none"> • Number Line • Length • Addition • Subtraction • Measurement Tools 	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
2.MDR.6: Solve real-life problems involving time and money.		
<p>2.MDR.6.1 Tell and write time from analog and digital clocks to the nearest five minutes, and estimate and measure elapsed time using a timeline, to the hour or half hour on the hour or half hour.</p>	<ul style="list-style-type: none"> • Songs: Telling Time; Clock Hands • Tell Time • Tell Time to Five Minutes • Tell Time to the Quarter Hour • Tell Time to the Minute • Tell Time to the Hour • Tell Time to the Half-hour • Sequence Times 	<ul style="list-style-type: none"> • Tell and write time.pdf: Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. <ul style="list-style-type: none"> - Matching Clocks - Cartoon Captions - Time to 5 Minutes
<p>2.MDR.6.2 Find the value of a group of coins and determine combinations of coins that equal a given amount that is less than one hundred cents, and solve problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately.</p>	<ul style="list-style-type: none"> • Songs: Money; Save Your Pennies • Book: Bugs For Sale • Coin Identification • Coin Value • Quarters • Count Dimes, Nickels, and Pennies • Count Quarters, Dimes, Nickels, and Pennies • Count Nickels and Pennies or Dimes and Pennies • Make Change • Count Coins • Count Bills and Coins • Equivalent Sums of Money 	<ul style="list-style-type: none"> • Solve money word problems.pdf: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. <ul style="list-style-type: none"> - Supermarket Hunt - Shopping for My Family - Money Combinations - Money Sums - Pizza Parlor - How Much Back? - Coin Count - Bills and Coins - Let's Count Coins - Money Addition - Change is Good! - Make 45¢

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
GEOMETRIC & SPATIAL REASONING—sorting shapes, lines of symmetry, partitioning circles and rectangles		
2.GSR.7: Draw and partition shapes and other objects with specific attributes and conduct observations of everyday items and structures to identify how shapes exist in the world.		
2.GSR.7.1 Describe, compare and sort 2-D shapes including polygons, triangles, quadrilaterals, pentagons, hexagons, and 3-D shapes including rectangular prisms and cones, given a set of attributes.	<ul style="list-style-type: none"> • Songs: Savanna Size; Measuring Plants; Shapes, Shapes, Shapes; Marmot Shapes; Corners and Sides • Book: Buttons, Buttons • Size • Capacity • Length • Heavy and Light • Tall and Short • Big and Little • Materials • Sort • Logic Game • Simple Shapes • Solid Shapes • Space Shapes 	<ul style="list-style-type: none"> • Compare shapes.pdf: Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length). <ul style="list-style-type: none"> - Comparing Shapes
2.GSR.7.2 Identify at least one line of symmetry in everyday objects to describe each object as a whole.	<ul style="list-style-type: none"> • Song: Symmetry • Book: Symmetry and Me • Symmetry 	
2.GSR.7.3 Partition circles and rectangles into two, three, or four equal shares. Identify and describe equal-sized parts of the whole using fractional names (“halves,” “thirds,” “fourths,” “half of,” “third of,” “quarter of,” etc.).	<ul style="list-style-type: none"> • Song: Fractions • Books: Halves and Fourths and Thirds; The Fraction Twins • Fractions • Label Parts of Fractions • Fractions of Regions • Fractions of Groups 	<ul style="list-style-type: none"> • Fractions.pdf: Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. <ul style="list-style-type: none"> - Frenzied Fraction Fun - Fabulous Fractions
2.GSR.7.4 Recognize that equal shares of identical wholes may be different shapes within the same whole.	<ul style="list-style-type: none"> • Song: Fractions • Books: Halves and Fourths and Thirds; The Fraction Twins • Fractions • Label Parts of Fractions • Fractions of Regions • Fractions of Groups 	<ul style="list-style-type: none"> • Fractions.pdf: Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. <ul style="list-style-type: none"> - Frenzied Fraction Fun - Fabulous Fractions

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
SCIENCE		
KINDERGARTEN		
Earth and Space Science		
<p>SKE1. Obtain, evaluate, and communicate observations about time patterns (day to night and night to day) and objects (sun, moon, stars) in the day and night sky.</p> <p>a. Ask questions to classify objects according to those seen in the day sky, the night sky, and both.</p>	<ul style="list-style-type: none"> • Songs: The Moon; Sun Blues • Books: Moon Song; Star Pictures; My Family Campout • Sun • Moon • Constellations • Sun, Moon, and Earth 	<ul style="list-style-type: none"> • More to Explore Experiment: The Moon • Learning Together: The Sky Above Us
<p>b. Develop a model to communicate the changes that occur in the sky during the day, as day turns into night, during the night, and as night turns into day using pictures and words. (Clarification statement: Students are not expected to understand tilt of the Earth, rotation, or revolution.)</p>	<ul style="list-style-type: none"> • Songs: The Moon; Sun Blues • Books: Moon Song; Star Pictures; My Family Campout • Sun • Moon • Constellations • Sun, Moon, and Earth 	<ul style="list-style-type: none"> • More to Explore Experiment: The Moon • Learning Together: The Sky Above Us
<p>SKE2. Obtain, evaluate, and communicate information to describe the physical attributes of earth materials (soil, rocks, water, and air).</p> <p>a. Ask questions to identify and describe earth materials—soil, rocks, water, and air.</p>	<ul style="list-style-type: none"> • Songs: Water • Book: Water Is All Around • Natural Resources • Water • Rocks • Rock Cycle • Soil • Water • Air 	<ul style="list-style-type: none"> • More to Explore Experiment: Rocks
<p>b. Construct an argument supported by evidence for how rocks can be grouped by physical attributes (size, weight, texture, color).</p>	<ul style="list-style-type: none"> • Book: Red Rock, River Rock • Size • Weight • Length • Sort • Touch • Color Practice 	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<i>Earth and Space Science continued</i>		
<p>c. Use tools to observe and record physical attributes of soil such as texture and color.</p>	<ul style="list-style-type: none"> • Science Tools • Soil • Rocks • Touch • Color Practice 	
<i>Physical Science</i>		
<p>SKP1. Obtain, evaluate, and communicate information to describe objects in terms of the materials they are made of and their physical attributes.</p> <p>a. Ask questions to compare and sort objects made of different materials. (Common materials include clay, cloth, plastic, wood, paper, and metal.)</p>	<ul style="list-style-type: none"> • Sort • Materials • Big and Little • Length • Weight 	
<p>b. Use senses and science tools to classify common objects, such as buttons or swatches of cloth, according to their physical attributes (color, size, shape, weight, and texture).</p>	<ul style="list-style-type: none"> • Songs: All Sorts of Laundry; Shapes, Shapes, Shapes; The Five Senses • Book: Buttons, Buttons • Science Tools • Sort • Color Practice • Size • Weight • Heavy and Light • Big and Little • Sight • Hearing • Touch • Smell 	
<p>c. Plan and carry out an investigation to predict and observe whether objects, based on their physical attributes, will sink or float.</p>	<ul style="list-style-type: none"> • Buoyancy Experiment • Density Experiment • Heavy and Light 	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<i>Physical Science continued</i>		
<p>SKP2. Obtain, evaluate, and communicate information to compare and describe different types of motion.</p> <p>a. Plan and carry out an investigation to determine the relationship between an object's physical attributes and its resulting motion (straight, circular, back and forth, fast and slow, and motionless) when a force is applied. (Examples could include toss, drop, push, and pull.)</p>	<ul style="list-style-type: none"> • Songs: Push and Pull; Gravity • Books: Mr. Mario's Neighborhood; The Big Hill; Up and Down • Push and Pull • Rock Cycle 	<ul style="list-style-type: none"> • More to Explore Experiment: Air Movement • Learning Together: How It Works
<p>b. Construct an argument as to the best way to move an object based on its physical attributes.</p>	<ul style="list-style-type: none"> • Song: Push and Pull • Book: Mr. Mario's Neighborhood • Push and Pull 	
<i>Life Science</i>		
<p>SKL1. Obtain, evaluate, and communicate information about how organisms (alive and not alive) and non-living objects are grouped.</p> <p>a. Construct an explanation based on observations to recognize the differences between organisms and nonliving objects</p>	<ul style="list-style-type: none"> • Song: Living and Nonliving • Living or Nonliving • Plants and Animals • Rocks • Plants Need Water • Animals Need Water • Living Things 	
<p>b. Develop a model to represent how a set of organisms and nonliving objects are sorted into groups based on their attributes.</p>	<ul style="list-style-type: none"> • Songs: Savanna Size; Measuring Plants; Shapes, Shapes, Shapes; Marmot Shapes; Living and Nonliving • Book: Buttons, Buttons • Living or Nonliving • Plants and Animals • Size • Capacity • Length • Heavy and Light • Tall and Short • Big and Little • Materials • Sort • Living Things 	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<i>Life Science continued</i>		
<p>SKL2. Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms.</p> <p>a. Construct an argument supported by evidence for how animals can be grouped according to their features.</p>	<ul style="list-style-type: none"> • Songs: Animal Bodies; Birds; Vertebrates; Fish; Plant or Animal; Invertebrates; Plant or Animal • Books: I Want to Be a Scientist Like Jane Goodall; Guess What I Am; Creepy Crawlers; Animal Bodies; Everybody Needs to Eat • Food From Plants • Animal Bodies • Mammals • Birds • Reptiles • Amphibians • Plant or Animal • Invertebrates • Insects • Worms • Science Investigation 	
<p>b. Construct an argument supported by evidence for how plants can be grouped according to their features.</p>	<ul style="list-style-type: none"> • Songs: Plant or Animal; Plants Are Growing; Food From Plants; Measuring Plants • Books: A Seed Grows; Little Tree; I Want to Be a Scientist Like Carl Linnaeus; I Want to Be a Scientist Like Alexander von Humboldt • Food From Plants • Plants • Plant Parts • Plant or Animal • Science Investigation 	
<p>c. Ask questions and make observations to identify the similarities and differences of offspring to their parents and to other members of the same species.</p>	<ul style="list-style-type: none"> • Song: Traits • Books: George and Jack; A Seed Grows; Mine • Build Knowledge: Mine • Traits of Living Things 	<ul style="list-style-type: none"> • More to Explore Experiment: Traits

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
FIRST GRADE		
Earth and Space Science		
<p>SE1. Obtain, evaluate, and communicate weather data to identify weather patterns.</p> <p>a. Represent data in tables and/or graphs to identify and describe different types of weather and the characteristics of each type.</p>	<ul style="list-style-type: none"> • Songs: Seasons; Precipitation; Storms; Graphing • Books: That's What I Like: A Book About Seasons; Whatever the Weather • Weather • Calendar/Graph Weather • Weather Patterns • Clouds • Lightning Safety • Bar Graphs • Picture Graphs • Make a Table 	<ul style="list-style-type: none"> • Learning Together: Weather; The Weather Around Us • Weather Cards
<p>b. Ask questions to identify forms of precipitation such as rain, snow, sleet, and hailstones as either solid (ice) or liquid (water).</p>	<ul style="list-style-type: none"> • Songs: Precipitation; Solid or Liquid • Book: Whatever the Weather • Solid and Liquid • Science Investigation • States of Water 	
<p>c. Plan and carry out investigations on current weather conditions by observing, measuring with simple weather instruments (thermometer, wind vane, rain gauge), and recording weather data (temperature, precipitation, sky conditions, and weather events) in a periodic journal, on a calendar, and graphically.</p>	<ul style="list-style-type: none"> • Songs: Precipitation; Storms; Graphing • Book: Whatever the Weather • Weather • Calendar/Graph Weather • Weather Tools • Science Tools • Weather Patterns • Clouds • Bar Graphs • Picture Graphs • Make a Table 	<ul style="list-style-type: none"> • Learning Together: Weather; The Weather Around Us • Weather Cards

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<i>Earth and Space Science continued</i>		
<p>d. Analyze data to identify seasonal patterns of change. (Clarification statement: Examples could include temperature, rainfall/snowfall, and changes to the environment.)</p>	<ul style="list-style-type: none"> • Songs: Seasons; Precipitation; The Four Seasons • Books: That's What I Like: A Book About Seasons; Whatever the Weather • Weather • Calendar/Graph Weather • Weather Patterns • Weather Affects People and Animals • Spring • Summer • Fall • Winter 	<ul style="list-style-type: none"> • Learning Together: Weather; The Weather Around Us • Weather Cards
<i>Physical Science</i>		
<p>S1P1. Obtain, evaluate, and communicate information to investigate light and sound.</p> <p>a. Use observations to construct an explanation of how light is required to make objects visible.</p>	<ul style="list-style-type: none"> • Books: My Family Campout; Lightning Bugs • Light Properties • Properties of Light 	
<p>b. Ask questions to identify and compare sources of light.</p>	<ul style="list-style-type: none"> • Light Sources • Sources of Light • Light Experiment • Light Properties • Light Exploration 	
<p>c. Plan and carry out an investigation of shadows by placing objects at various points from a source of light.</p>	<ul style="list-style-type: none"> • Book: My Family Campout • Light Properties • Properties of Light • Light Exploration • Light Experiment 	
<p>d. Construct an explanation supported by evidence that vibrating materials can make sound and that sound can make materials vibrate.</p>	<ul style="list-style-type: none"> • Song: Sound • Book: What Sounds Say • Sound Waves 	<ul style="list-style-type: none"> • More to Explore Experiment: Sound

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<i>Physical Science continued</i>		
e. Design a signal that can serve as an emergency alert using light and/or sound to communicate over a distance.	<ul style="list-style-type: none"> • Song: Inventing • Books: I Want to Be a Scientist Like Thomas Edison; Inventions All Around 	
S1P2. Obtain, evaluate, and communicate information to demonstrate the effects of magnets on other magnets and other objects. a. Construct an explanation of how magnets are used in everyday life. (Clarification statement: Everyday life uses could include refrigerator magnets, toys, magnetic latches, and name tags.)	<ul style="list-style-type: none"> • Magnets 	
b. Plan and carry out an investigation to demonstrate how magnets attract and repel each other and the effect of magnets on common objects.	<ul style="list-style-type: none"> • Magnets 	
<i>Life Science</i>		
S1L1. Obtain, evaluate, and communicate information about the basic needs of plants and animals. a. Develop models to identify the parts of a plant—root, stem, leaf, and flower.	<ul style="list-style-type: none"> • Song: Plants Are Growing • Books: A Seed Grows; The Watermelon Seed • Plants • Functions of Plant Parts 	<ul style="list-style-type: none"> • Plant Parts.pdf: Draw a plant and label the parts. • Plants We Eat.pdf: Draw pictures of the parts of plants that you eat.
b. Ask questions to compare and contrast the basic needs of plants (air, water, light, and nutrients) and animals (air, water, food, and shelter).	<ul style="list-style-type: none"> • Songs: Water; Food From Plants • Books: Mela's Water Pot; Everybody Needs to Eat • Sun • Plants • Water • Plants and Animals Need Air • Healthy Plants' Needs 	<ul style="list-style-type: none"> • More to Explore Experiment: Water for Plants • Learning Together: Green and Growing
c. Design a solution to ensure that a plant or animal has all of its needs met.	Waterford encourages everyone to have writing, drawing, and art materials available for children's creations.	<ul style="list-style-type: none"> • More to Explore Experiment: Water for Plants • Learning Together: Green and Growing

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
SECOND GRADE		
Earth and Space Science		
<p>S2E1. Obtain, evaluate, and communicate information about stars having different sizes and brightness.</p> <p>a. Ask questions to describe the physical attributes (size and brightness) of stars.</p>	<ul style="list-style-type: none"> • Book: Star Pictures • Constellations • Sun 	<ul style="list-style-type: none"> • Learning Together: The Sky Above Us
<p>b. Construct an argument to support the claim that although the sun appears to be the brightest and largest star, it is actually medium in size and brightness.</p>	<ul style="list-style-type: none"> • Song: Sun Blues • Sun 	
<p>S2E2. Obtain, evaluate, and communicate information to develop an understanding of the patterns of the sun and the moon and the sun's effect on Earth.</p> <p>a. Plan and carry out an investigation to determine the effect of the position of the sun in relation to a fixed object on Earth at various times of the day.</p>	<ul style="list-style-type: none"> • Light Exploration • Sources of Light • Light Experiment 	
<p>b. Design and build a structure that demonstrates how shadows change throughout the day.</p>	<ul style="list-style-type: none"> • Light Exploration • Sources of Light • Light Experiment 	
<p>c. Represent data in tables and/or graphs of the length of the day and night to recognize the change in seasons.</p>	<ul style="list-style-type: none"> • Songs: Seasons; Graphing • Book: That's What I Like: A Book About Seasons • Science Investigation • Bar Graphs • Picture Graphs • Make a Table 	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<i>Earth and Space Science continued</i>		
<p>d. Use data from personal observations to describe, illustrate, and predict how the appearance of the moon changes over time in a pattern. (Clarification statement: Students are not required to know the names of the phases of the moon or understand the tilt of the Earth.)</p>	<ul style="list-style-type: none"> • Song: The Moon • Books: Moon Song • Moon • Moon Patterns 	<ul style="list-style-type: none"> • More to Explore Experiment: The Moon • Learning Together: The Sky Above Us
<p>S2E3. Obtain, evaluate, and communicate information about how weather, plants, animals, and humans cause changes to the environment. (Clarification statement: Changes should be easily observable and could be seen on school grounds or at home.)</p> <p>a. Ask questions to obtain information about major changes to the environment in your community.</p>	<ul style="list-style-type: none"> • Song: Four Ecosystems • Books: Where in the World Would You Go Today?; Winter Snoozers; Birds at my House; The Old Maple Tree; Turtle's Pond • Mountains • Deserts • Rainforests 	<ul style="list-style-type: none"> • Learning Together: Our Earth
<p>b. Construct an explanation of the causes and effects of a change to the environment in your community.</p>	<ul style="list-style-type: none"> • Books: Winter Snoozers; Birds at my House; The Old Maple Tree; Turtle's Pond 	
<i>Physical Science</i>		
<p>S2P1. Obtain, evaluate, and communicate information about the properties of matter and changes that occur in objects.</p> <p>a. Ask questions to describe and classify different objects according to their physical properties. (Clarification statement: Examples of physical properties could include color, mass, length, texture, hardness, strength, absorbency, and flexibility.)</p>	<ul style="list-style-type: none"> • Songs: Savanna Size; Measuring Plants; Shapes, Shapes, Shapes; Marmot Shapes • Size • Capacity • Length • Heavy and Light • Tall and Short • Big and Little • Materials • Sort • Density Experiment • Buoyancy Experiment 	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<i>Physical Science continued</i>		
<p>b. Construct an explanation for how structures made from small pieces (linking cubes, building blocks) can be disassembled and then rearranged to make new and different structures.</p>	<ul style="list-style-type: none"> • Books: I Want to Be a Scientist Like Wilbur and Orville Wright; Inventions All Around • Geoboard • Tangrams 	
<p>c. Provide evidence from observations to construct an explanation that some changes in matter caused by heating or cooling can be reversed and some changes are irreversible. (Clarification statement: Changes in matter could include heating or freezing of water, baking a cake, boiling an egg.)</p>	<ul style="list-style-type: none"> • Books: Warm Soup for Dedushka; Pancakes Matter • Changes in Matter • Movement of Heat 	
<p>S2P2. Obtain, evaluate, and communicate information to explain the effect of a force (a push or a pull) in the movement of an object (changes in speed and direction). a. Plan and carry out an investigation to demonstrate how pushing and pulling on an object affects the motion of the object.</p>	<ul style="list-style-type: none"> • Song: Push and Pull • Book: Mr. Mario's Neighborhood • Push and Pull 	
<p>b. Design a device to change the speed or direction of an object.</p>	<p>Waterford encourages everyone to have writing, drawing, and art materials available for children's creations.</p>	
<p>c. Record and analyze data to decide if a design solution works as intended to change the speed or direction of an object with a force (a push or a pull).</p>	<ul style="list-style-type: none"> • Songs: Push and Pull; Graphing • Book: Mr. Mario's Neighborhood • Push and Pull • Bar Graph • Picture Graph 	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Life Science		
<p>S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms.</p> <p>a. Ask questions to determine the sequence of the life cycle of common animals in your area: a mammal such as a cat, dog or classroom pet, a bird such as a chicken, an amphibian such as a frog, and an insect such as a butterfly.</p>	<ul style="list-style-type: none"> • Books: Watch the Woolly Worm • Animal Life Cycle and Growth • Amphibians • Mammals • Birds • Observe a Simple System 	<ul style="list-style-type: none"> • Butterfly Life Cycle.pdf: Create the different stages of a butterfly's life cycle. • Bird Life Cycle.pdf: Create the different stages of a bird's life cycle. • Frog Life Cycle.pdf: Draw and color a picture for each stage in the frog life cycle. • Amphibians.pdf: Cut and paste pictures to show how the egg changes into a frog.
<p>b. Plan and carry out an investigation of the life cycle of a plant by growing a plant from a seed and by recording changes over a period of time.</p>	<ul style="list-style-type: none"> • Song: Graphing • Books: Little Tree; A Seed Grows; The Watermelon Seed; The Old Maple Tree • Plant Life Cycle and Growth • Plant Experiment • Bar Graphs • Picture Graphs 	<ul style="list-style-type: none"> • The Plant Life Cycle.pdf: Create the different stages of a plant's life cycle.
<p>c. Construct an explanation of an animal's role in dispersing seeds or in the pollination of plants.</p>	<ul style="list-style-type: none"> • Books: The Bee's Secret; The Old Maple Tree 	
<p>d. Develop models to illustrate the unique and diverse life cycles of organisms other than humans.</p>	<ul style="list-style-type: none"> • Books: Watch the Woolly Worm; Little Tree; A Seed Grows; The Watermelon Seed; The Old Maple Tree • Animal Life Cycle and Growth • Amphibians • Mammals • Birds • Observe a Simple System • Plant Life Cycle and Growth • Plant Experiment 	<ul style="list-style-type: none"> • Butterfly Life Cycle.pdf: Create the different stages of a butterfly's life cycle. • Bird Life Cycle.pdf: Create the different stages of a bird's life cycle. • Frog Life Cycle.pdf: Draw and color a picture for each stage in the frog life cycle. • Amphibians.pdf: Cut and paste pictures to show how the egg changes into a frog. • The Plant Life Cycle.pdf: Create the different stages of a plant's life cycle.

PRE-MATH & SCIENCE

Math Books

Zero In My Toybox; One Day on the Farm; Two Feet; Look for Three; Four Fine Friends; Grandpa's Great Athlete: A Book About 5; Hide and Seek Six; Just Seven; Eight at the Lake; 9 Cat Night; Ten for My Machine; The Search for Eleven; The Tasty Number Twelve; Thirteen in My Garden; Fourteen Camel Caravan; Fifteen on a Spring Day; Dinner for Sixteen; The Seventeen Machine; Eighteen Carrot Stew; Nineteen Around the World; Twenty Clay Children; Poor Wandering 1; Snowy Twos Day; 1, 2, 3, 4 in the Jungle; Give Me 5; Suzy Ladybug; 7 Train; 8 Octopus Legs; Highway 9; 10 Astronauts; When I Saw 11; I Love the Number 12; 13 Clues; 14 Camels; Fun 15; 16 Ants; Counting to 17; 18 Carrot Stew; 19 Around the World; 20 Fingers and Toes

Science Books

That's What I Like: A Book about Seasons; I Want to Be a Scientist Like Jane Goodall; Mr. Mario's Neighborhood; Mela's Water Pot; I Want to Be a Scientist Like Wilbur and Orville Wright; Follow the Apples!; I Want to Be a Scientist Like George Washington Carver; Guess What I Am; Where in the World Would You Go Today?; Star Pictures; I Wish I Had Ears Like a Bat; Creepy Crawlers

Counting Songs

Asian Counting, Marching Band Counting, Flower Counting, Country Counting, Dixieland Counting, Funky Counting, Reggae Counting, Salsa Counting, Techno Counting, Bagpipe Counting, Counting on the Mountain

Number Songs

Count to 31; Hotel 100; Zero Is a Big Round; Hole Poor Wandering 1; Snowy Twos Day; 1, 2, 3, 4 in the Jungle; Give Me 5; Suzy Ladybug; 7 Train; 8 Octopus Legs; Highway 9; 10 Astronauts; When I Saw 11; I Love the Number 12; 13 Clues; 14 Camels; Fun 15; 16 Ants; Counting to 17; 18 Carrot Stew; 19 Around the World; 20 Fingers and Toes

BASIC MATH & SCIENCE

Math & Science Books

One More Cat; Can You Guess? A Story for Two Voices; I Want to Be a Scientist Like Carl Linnaeus; I Want to Be a Scientist Like Antoni van Leeuwenhoek; Whatever the Weather; I Want to Be a Mathematician Like Sophie Germain; Water Is All Around; Mr. Romano's Secret: A Time Story; A Seed Grows; How Long is a Minute?; Marty's Mixed-up Mom; I Want to Be a Scientist Like Louis Pasteur; Pancakes Matter; Jump Rope Rhymes; Facts About Families; Fifteen Bayou Band; Hooray, Hooray for the One Hundredth Day!; Symmetry and Me; Animal Bodies; Everybody Needs to Eat; The Circus Came to Town; I Want to Be a Mathematician Like Thales; Bugs for Sale; Heads or Tails; Your Backyard; The Birds, the Beasts and the Bat; Halves and Fourths and Thirds; We All Exercise; Circus 20; Red Rock, River Rock; Painting by Number; I Want to Be a Scientist Like Joanne Simpson; Navajo Beads; Where in the World Would You Go Today?; I Want to Be a Scientist Like Wilbur and Orville Wright

FLUENT MATH & SCIENCE

Math & Science Books

The Snow Project; Chloe's Cracker Caper; What Sounds Say; Fossils Under Our Feet; The Boonville Nine; I Want to Be a Scientist Like Alexander von Humboldt; I Want to Be a Scientist Like Marie Curie; I Want to Be a Scientist Like Stephen Hawking; George and Jack; The Old Maple Tree; A Dinosaur's First Day; I Want to Be a Scientist Like Isaac Newton; My Family Campout; I Want to Be a Scientist Like Thomas Edison; Warm Soup for Dedushka; How Did the Chicken Cross the Road?; Inventions All Around; The Beginning of Numbers; I Want to Be a Mathematician Like Ada Byron Lovelace; Lightning Bells; Tyrannosaurus X 1; Halves and Fourths and Thirds; Navajo Beads; Red Rock, River Rock; I Want to Be a Mathematician Like Srinivasa Ramanujan; The Fraction Twins; Yangshi's Perimeter; I Want to Be a Mathematician Like Archimedes; Birds at My House; Painting by Number; The Fable Fair



SUPPORT

Professional Services offers a continuum of customizable services. Learn more [here](#).

CONTINUAL DEVELOPMENT

As a nonprofit research institute, Waterford.org is continually developing resources with the latest research findings. Please note that this correlation is accurate as of the date on the cover.

SPANISH FAMILY ENGAGEMENT RESOURCES

All Waterford books and many of the resources available to families at mentor.waterford.org can be found in Spanish or with Spanish support.

SONGS

Beginning Math Songs

Odd Todd and Even Steven; Salsa Counting; On the Bayou—Addition; Subtract Those Cars; More Than, Fewer Than; A Nice Addition; Marching Band Counting; Doubles 1-5; Multiply by 0

Nursery Songs and Rhymes

Rhyming Words; A: The Apple Tree; B: Bluebird, Bluebird; C: Pat-a-Cake; D: Hey Diddle, Diddle; E: One Elephant Went Out to Play; F: The Farmer in the Dell; G: Ten Little Goldfish; H: All the Pretty Little Horses; I: Mother, Mother, I Am Ill; J: Jack and Jill; K: Three Little Kittens; L: Mary Had a Little Lamb; M: Little Miss Muffett; N: I Touch My Nose Like This (Spanish); O: Polly, Put the Kettle On; P: This Little Pig; Q: Quack, Quack, Quack; R: Little Rabbit (Chinese); S: Eensy, Weensy Spider; T: Tortillas, Tortillas (Spanish); U: The Bus; V: My Valentine; W: Wee Willie Winkie; X: A-hunting We Will Go; Y: Yankee Doodle; Z: The Zulu Warrior

Beginning Reading Songs

Comma, Comma, Comma; Homophone Monkey; Antonym Ant; Apples and Bananas; Old MacDonald's Vowels; ABC Show and Tell Sounds; ABC Tongue Twisters; ABC Picture Sounds; Sheep in the Shadows; C-K Rap; S Steals the Z; Blends; Blicky Licky Land; Apostrophe Pig; Capital Letters—Days; Chip Chop; Adjectives Describe; Lazy Letter Q; Nouns; Verbs; Adverbs; Irregular Verbs; Preposition Ship; Verbs that Link; Consonants; Pronouns, Sneaky Magic E; Silent Letters—G-H; Silent Letters—W; Drop Magic E; Bossy Mr. R; P-H and G-H Say Fff; Schwa Sound; Double the Fun; Strange Spelling; More Than One; Reading Detective—Peek at the Story

Many of these songs are available on the [Waterford.org YouTube channel](https://www.youtube.com/channel/UC...).

WEEKLY HOMELINK NEWSLETTERS

Weekly newsletters (28 in all) are available for teachers to share with families. The newsletters explain what children are learning during the week and provide resources and activities to involve families.

MATH HOMELINK NEWSLETTERS

Match, Position, Shapes, Counting, Patterns Sort, Size, Number Sense (1-10), Order (1-10), Count On, Measurement (length), Count Down, Addition (10), Numbers 11-15, Numbers 16-20

SCIENCE HOMELINK NEWSLETTERS

The World Around Us (5 senses), Living Things (living v. non-living), Plants, Vertebrates, Invertebrates, The Sky Above Us (sun, moon, stars), Our Earth (recycle, ecosystems), How it Works (push/pull, solid/liquid, magnets, materials)

READING HOMELINK NEWSLETTERS

Alphabet Knowledge

Comprehension and Vocabulary

Sum Up: Remember Order, Sum Up: Remember Details, Peek at the Story, Guess and Check, Connect to Me, Build Knowledge

Readiness Skills Letters

Naming Parts of the Body; First, Next, Last; One-to-One Correspondence; Opposites; Look at Details (identify same and different)

Phonological Awareness Letters

What Is Rhyming?, Which Words Rhyme?, Sentences Are Made Up of Words, Making Compound Words, Breaking Compound Words, What Is a Syllable?, Put Syllables Together to Make Words, Break Words into Syllables, The First Sound in a Word, Words with the Same First Sound, Making Words from First Sounds and the Rest

WATERFORD MENTOR

Waterford Mentor is a secure website where families can log in to see their child's usage and learning achievements. Waterford families also receive short messages with ideas on how to engage in their child's learning and have access to hundreds of resources and activities.



Waterford Mentor is available online and in the Mentor app (for iOS and Android).