

CURRICULUM *Correlation*

*Waterford Reading
Academy:
Math & Science*

100%

*Arkansas
Mathematics
Standards 2023
& Science 2015*

**Correlation content includes both Waterford Digital Resources and Waterford Teacher Resources.*

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ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
MATHEMATICS		
KINDERGARTEN		
Number & Place Value		
Counting & Number Foundations: Students know the number names and count sequence while exploring the relationships between numbers.		
<p>K.NPV.1: Count to 100 by ones and tens; count forward by ones from any given number up to 100.</p>	<ul style="list-style-type: none"> • Song: Counting On • Number Songs • Counting Songs • Math Books • Number Counting • Number Instruction • Count On • Skip Counting 	<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; 6-10 - Count By 10s - I Can Count to 100 • Counting 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
<p>K.NPV.2: Count a set of objects up to 20 using one-to-one correspondence, demonstrating that the last number stated indicates the number of objects in the set regardless of the arrangement.</p>	<ul style="list-style-type: none"> • Counting Songs • Number Songs • Number Counting • One-to-one Correspondence • Make and Count Groups • Number Instruction 	<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.NPV.3: Identify the position of objects in a set using ordinal numbers (first, second, third, etc.).</p>	<ul style="list-style-type: none"> • Song: Ordinals • Book: The Circus Came to Town • Ordinal Numbers 	<ul style="list-style-type: none"> • Ordinals.pdf: Find the ordinal number and color that bead.
<p>K.NPV.4: Identify quickly a number of items in a set from 0 to 10 without counting.</p>	<ul style="list-style-type: none"> • Moving Target (Dots) • Dominoes 	

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Place Value: Students understand the base ten place value system.		
K.NPV.5: Read, write, and represent whole numbers from 0 to 20.	<ul style="list-style-type: none"> • Math Books • Number Songs • Number Instruction 	<ul style="list-style-type: none"> • Writing from 0 to 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: 1-20 (one per number) - Numbers 1-5 - Add groups - Count on by 1 - Number Writing Practice: 0-20 (one per number)
K.NPV.6: Show equivalent forms of whole numbers up to 20 as groups of tens and ones, using manipulatives and drawings.	<ul style="list-style-type: none"> • Number Instruction • Make and Count Groups 	
Comparison: Students use place value understanding to compare numbers.		
K.NPV.7: Use matching and counting strategies to compare the number of objects in one group to the number of objects in another group (0 to 10) using the terms greater than, less than, or equal.	<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 	<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? 1 - Fewer Than - More or Fewer - Which Has More? 2 - Greater or Less
K.NPV.8: Compare two whole numbers, using the terms greater than, less than, or equal.	<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 	<ul style="list-style-type: none"> • Comparing numbers.pdf: Compare two numbers between 1 and 10 presented as written numerals. <ul style="list-style-type: none"> - More or Less Spinner - Catch Me If You Can! - Greater or Less - Less or Greater - Number cards

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Computation & Algebraic Reasoning		
Operations & Properties: Students perform operations using place value understanding and properties of operations.		
<p>K.CAR.1.: Use objects, fingers, mental images, drawings, sounds, acting out situations, or verbal explanations to represent addition and subtraction from 0 to 10.</p>	<ul style="list-style-type: none"> • Songs: Pirates Can Add; 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"> • Represent addition and subtraction with objects. pdf: Represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations. <ul style="list-style-type: none"> - Addition Cubes - Addition Stories - Going Fishing - Let's Count On - Act it out Stories - Manipulative Stories
<p>K.CAR.2: Use objects or drawings to decompose numbers less than or equal to 10 into pairs in more than one way, recording each decomposition.</p>	<ul style="list-style-type: none"> • Make and Count Groups • Add Groups • Subtract Groups • 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.CAR.3: Use a drawing or equation to find the number that makes 10 when added to a given number.</p>	<ul style="list-style-type: none"> • Make 10 • Missing Addends • Count On • Act Out Addition 	<ul style="list-style-type: none"> • Numbers that make 10.pdf: For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. <ul style="list-style-type: none"> - How Many More?
<p>K.CAR.4: Use manipulatives and various strategies to fluently add and subtract within 10.</p>	<ul style="list-style-type: none"> • Songs: Pirates Can Add; On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction • Book: Five Delicious Muffins • Sums • Act Out Addition • Act Out Subtraction 	

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Problem Solving: Students to solve real-world problems.		
<p>K.CAR.5: Solve real-world problems involving addition and subtraction within 10, using objects, drawings, or equations to represent the problem.</p>	<ul style="list-style-type: none"> • Songs: Pirates Can Add; On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction • Book: Five Delicious Muffins • Add Groups • Subtract Groups • 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"> - Addition 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
Geometry & Measurement		
Shapes: Students analyze attributes of shapes to develop generalizations about their properties.		
<p>K.GM.1: Describe the positions of objects and geometric shapes in the environment. Terms include: inside, outside, between, above, below, near, far, under, over, up, down, behind, in front of, next to, to the left of, and to the right of</p>	<ul style="list-style-type: none"> • Songs: Position Cat; Get Over the Bugs • Books: 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
<p>K.GM.2: Name shapes correctly regardless of their orientation or overall size. Shapes include: squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres</p>	<ul style="list-style-type: none"> • Songs: Kites; Shapes, Shapes, Shapes • Books: The Shape of Things; Imagination Shapes; Up in the Air • 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 - Shapes Flashcards

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Shapes: Students analyze attributes of shapes to develop generalizations about their properties <i>continued</i> .		
K.GM.3: Identify two-dimensional attributes of three-dimensional objects.	<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
K.GM.4: Analyze and sort a variety of two and three-dimensional shapes using informal language to describe their similarities, differences, and other attributes.	<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
K.GM.5: Compose and draw shapes found in the world using objects (e.g., straws, toothpicks, clay balls).	<ul style="list-style-type: none"> • Geoboard • Tangrams 	<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

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Measurement Concepts: Students develop understanding of measurement terms and concepts.		
<p>K.GM.6: Make direct comparisons of the length, capacity, weight, and temperature of objects, recognizing which object is shorter/longer, lighter/heavier, warmer/cooler, or holds more.</p>	<ul style="list-style-type: none"> • Songs: Savanna Size, Measuring Plants • Capacity • Length • Big and Little • Tall and Short • Heavy and Light • Size 	<ul style="list-style-type: none"> • Comparing objects.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 - Size Scavenger Hunt - Big and Little Sort - Boxes in a Line - Teddy Bear Line-Up - Magazine Sorting - Tall and Short - Big and Little - Heavy and Light - Small, Medium, Large - Measuring Length - Measurable Attributes
Time & Money: Students explore time and money values and concepts.		
<p>K.GM.7: Understand concepts of time, recognizing that clocks and calendars are tools that measure time. Concepts of time include: morning, afternoon, evening, today, yesterday, tomorrow, day, week, month, and year</p>	<ul style="list-style-type: none"> • Song: Clock Hands • Tell Time • Yesterday/Tomorrow • Today • Calendar 	
<p>K.GM.8: Identify pennies and dimes by name and value.</p>	<ul style="list-style-type: none"> • Songs: Money; Save Your Pennies • Coin Identification • Coin Value 	

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Data Analysis		
Charts, Graphs, & Tables: Students organize and analyze data.		
<p>K.DA.1: Collect, sort, and organize data into two or three categories, using real-object graphs and picture graphs.</p>	<ul style="list-style-type: none"> • Songs: Tallying; Graphing • Books: One More Cat; The Booneville Nine • Tally Marks • Bar Graphs • Picture Graphs 	<ul style="list-style-type: none"> • Data Categorization.pdf: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. <ul style="list-style-type: none"> - Ice Cream Sundae - Make a Real Object Graph - Make a Weather Bar Graph - Weather Flashcards - Our Favorite Foods - Make a Graph - Make a Table - How Many? - Bugs! - Use Graphs and Tables - How Big Is Your Family?
GRADE 1		
Number & Place Value		
Counting: Students extend the counting sequence.		
<p>1.NPV.1: Count forward and back within 120 by ones and tens from any given whole number.</p>	<ul style="list-style-type: none"> • Songs: Counting On; Counting Backward • Books: Circus 20; A Space Adventure • Skip Count by 2 • Count On • Counting Back • Make and Count Groups • Add Groups • Subtract Groups 	<ul style="list-style-type: none"> • Relate counting to addition and subtraction.pdf: Relate counting to addition and subtraction. <ul style="list-style-type: none"> - Skip Counting Chant - Jump Rope Counting - Related Facts - Count by 10s - Count by 5s - Count by 2s
<p>1.NPV.2: Skip count forward by multiples of fives within 120.</p>	<ul style="list-style-type: none"> • Song: Skip Counting • Skip Count by 5 	



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Place Value: Students understand the base ten place value system.		
1.NPV.3: Explain the place value of ones and tens in two-digit numbers, using concrete models, diagrams, numbers, or words.	<ul style="list-style-type: none"> • Song: Place Value • Place Value of 2-digit Numbers • Number Chart 	
1.NPV.4: Read, write, and represent whole numbers up to 120, using concrete models or drawings, word form, base ten numerals, and expanded form.	<ul style="list-style-type: none"> • Song: Counting On • Count On • Number Chart • Expanded Notation 	<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.NPV.5: Use concrete models or drawings to subtract multiples of 10 from multiples of 10 (within the range of 10-90), relate the strategy to a written expression or equation, and explain the reasoning used to solve.	<ul style="list-style-type: none"> • Subtraction • Subtract Tens • Subtraction Patterns • Subtract • Place Value • Addition and Subtraction Relationship • Use Manipulatives 	<ul style="list-style-type: none"> • 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
1.NPV.6: Use mental strategies to find 10 more or 10 less than a given two-digit number.	<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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Comparison: Students use place value understanding to compare numbers.		
<p>1.NPV.7: Compare two two-digit numbers using symbols ($>$) based on the value of tens and ones in the given numbers.</p>	<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
Fraction Foundations: Students build a conceptual understanding of fractions.		
<p>1.NPV.8: Partition circles and rectangles into two and four equal shares, describing the shares using the words halves, fourths, and quarters; understand that decomposing into more equal pieces creates smaller pieces.</p>	<ul style="list-style-type: none"> • Song: Fractions • Book: Halves and Fourths and Thirds • 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
Computation & Algebraic Reasoning		
Operations & Properties: Students perform operations using place value understanding and properties of operations.		
<p>1.CAR.1: Add and subtract fluently within 10 with mastery by the end of first grade.</p>	<ul style="list-style-type: none"> • Songs: Fact Families; Counting On • Books: Facts about Families; Circus 20 • Addition and Subtraction Fact Families • Addition Sentences • Subtraction Sentences • Commutative Property of Addition • Addition and Subtraction Relationship • Missing Addends • Missing Minuends and Subtrahends • 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

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Operations & Properties: Students perform operations using place value understanding and properties of operations <i>continued</i> .		
<p>1.CAR.2: Use computational fluency to add and subtract within 20 using manipulatives and/or a variety of strategies.</p>	<ul style="list-style-type: none"> • Songs: Fact Families; Counting On • Books: Facts about Families; Circus 20; 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.CAR.3: Apply properties of operations to add and subtract within 20.</p>	<ul style="list-style-type: none"> • Songs: Fact Families; Counting On • Books: Facts about Families; Circus 20; 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



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<p>1.CAR.4: Use concrete models or drawings to add within 100, including a two-digit number and a one-digit number as well as a two-digit number and a multiple of ten; relate strategy used to a written expression or equation and explain reasoning.</p>	<ul style="list-style-type: none"> • Addition • Add Tens • Add with Manipulatives • Add Vertical Squares • Add with Beads • 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 - The Kingdom of Popsicle Stick-Filled Purses - Straws and Macaroni - Bean Addition - Newsletter - Adding Tens and Ones - Color Adds Up - Cookies and Milk! - Addition of Two-Digit Numbers - Addition and Subtraction of Large Numbers
<p>1.CAR.5: Demonstrate the relationship between addition and subtraction by solving problems, using an inverse operation.</p>	<ul style="list-style-type: none"> • Addition Sentences • Subtraction Sentences • Addition and Subtraction Fact Families • Commutative Property of Addition • Addition and Subtraction Relationship • Missing Addends • Missing Minuends and Subtrahends 	
<p>Problem Solving: Students solve real-world problems.</p>		
<p>1.CAR.6: Solve real-world problems involving addition and subtraction within 20. Problem types include: adding to, taking from, putting together, taking apart, and comparing with unknowns present throughout the addition and subtraction problem.</p>	<ul style="list-style-type: none"> • Songs: Fact Families; Doubles • Book: Facts About Families • Addition and Subtraction Fact Families • Addition and Subtraction Relationship 	<ul style="list-style-type: none"> • Word problems using subtraction within 20.pdf: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. <ul style="list-style-type: none"> - Guess and Check - Model the Story
<p>1.CAR.7: Solve real-world problems involving addition of three whole numbers whose sum is less than or equal to 20.</p>	<ul style="list-style-type: none"> • Add 3 One-digit Numbers 	<ul style="list-style-type: none"> • Word problems adding 3 numbers.pdf: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20. <ul style="list-style-type: none"> - Draw a Picture



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Algebraic Concepts: Students develop and apply understanding of foundational algebraic concepts <i>continued</i>.		
1.CAR.8: Apply understanding of the equal sign to determine if equations involving addition and subtraction are true or false.	<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
1.CAR.9: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.	<ul style="list-style-type: none"> • Addition Sentences • Subtraction Sentences • Addition and Subtraction Fact Families • Missing Addends • Missing Minuends and Subtrahends 	
Geometry & Measurement		
Shapes: Students analyze attributes of shapes to develop generalizations about their properties.		
1.GM.1: Understand the difference between defining attributes (e.g., triangles are closed and three-sided shapes) and non-defining attributes (e.g., color, orientation, overall size), using that understanding to build and draw shapes that exhibit defining attributes.	<ul style="list-style-type: none"> • Songs: Corners and Sides; Kites • Geoboard • Space Shapes 	<ul style="list-style-type: none"> • Attributes.pdf: Distinguish between defining attributes versus non-defining attributes; build and draw shapes to possess defining attributes. <ul style="list-style-type: none"> - Sorting Shapes
1.GM.2: Create a composite shape using two-dimensional or three-dimensional shapes. Two-dimensional include: rectangle, square, trapezoid, triangle, hexagon, half circle, and quarter circle Three-dimensional include: cube, rectangular prism, cone, and cylinder	<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

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Length & Width: Students investigate measurement with non-standard units.		
<p>1.GM.3: Express the length of an object as a whole number of units by laying multiple copies of a shorter object end-to-end, understanding that the length of one object is equal to the number of same-size units that span the object with no gaps or overlaps.</p>	<ul style="list-style-type: none"> • Length • Nonstandard Units of Length 	<ul style="list-style-type: none"> • Length Measurement.pdf: Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. <ul style="list-style-type: none"> - Measures of Me - Measure a Handful - Estimating Length - A Fruit and Vegetable - Measure Up! - Inches/Centimeters Rulers
<p>1.GM.4: Order three objects by their length, indirectly comparing the lengths of two objects by using a third object.</p>	<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
Time & Money: Students explore time and money values and concepts.		
<p>1.GM.5: Tell and write time to the nearest hour and half hour using analog clocks; understand how to read hours and minutes using digital clocks.</p>	<ul style="list-style-type: none"> • Song: Clock Hands • Books: Mr. Romano’s Secret: A Time Story; How Long Is a Minute? • 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
<p>1.GM.6: Identify coins by name and value, including penny, nickel, dime, and quarter.</p>	<ul style="list-style-type: none"> • Songs: Money; Save Your Pennies • Coin Identification • Coin Value • Quarters 	

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Time & Money: Students explore time and money values and concepts <i>continued</i>.		
<p>1.GM.7: Count collections of like coins including pennies, nickels, and dimes to determine their total value up to 100 cents.</p>	<ul style="list-style-type: none"> • Songs: Money; Save Your Pennies • 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 	
Data Analysis		
Charts, Graphs, & Tables: Students organize and analyze data.		
<p>1.DA.1: Organize, represent, and interpret data with up to three categories (e.g., tally tables, picture graphs, bar graphs).</p>	<ul style="list-style-type: none"> • Songs: Tallying; Graphing • Books: Painting by Number; One More Cat; The Booneville Nine • Tally Marks • Graphs • Make a Table 	<ul style="list-style-type: none"> • Data Categorization.pdf: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. <ul style="list-style-type: none"> - Ice Cream Sundae - Make a Real Object Graph - Make a Weather Bar Graph - Weather Flashcards - Our Favorite Foods - Make a Graph - Make a Table - How Many? - Bugs! - Use Graphs and Tables - How Big Is Your Family?

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Charts, Graphs, & Tables: Students organize and analyze data <i>continued</i>.		
<p>1.DA.2: Ask and answer questions about the total number represented such as how many in each category and how many more or less in one category compared to another.</p>	<ul style="list-style-type: none"> • Songs: Tallying; Graphing • Books: Painting by Number; One More Cat; The Booneville Nine • Tally Marks • Graphs • Make a Table 	<ul style="list-style-type: none"> • Data Categorization.pdf: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. <ul style="list-style-type: none"> - Ice Cream Sundae - Make a Real Object Graph - Make a Weather Bar Graph - Weather Flashcards - Our Favorite Foods - Make a Graph - Make a Table - How Many? - Bugs! - Use Graphs and Tables - How Big Is Your Family?
GRADE 2		
Number & Place Value		
Counting: Students extend the counting sequence.		
<p>2.NPV.1: Count within 1,000 forwards and backwards by ones, tens, and hundreds from any given number.</p>	<ul style="list-style-type: none"> • Songs: Skip Counting; Counting Backward; Count On • Skip Count • Skip Count by 10 • Skip Count by 5 • Count On • Counting Back • Number Sequences and Patterns 	<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
Place Value: Students understand the base ten place value system.		
<p>2.NPV.2: Identify the value of hundreds, tens, and ones place in a three-digit number.</p>	<ul style="list-style-type: none"> • Song: Place Value • Place Value of 3-digit Numbers 	<ul style="list-style-type: none"> • Grouping hundreds.pdf: 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). <ul style="list-style-type: none"> - My Three-Digit Numbers

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Place Value: Students understand the base ten place value system <i>continued</i>.		
2.NPV.3: Read, write, and represent whole numbers up to 1,000 using concrete models or drawings, number names, and a variety of expanded forms.	<ul style="list-style-type: none"> • Sequences of 2-digit Numbers • Sequences of 3-digit Numbers • Number Chart • Place Value • Number Recognition and Sense 	<ul style="list-style-type: none"> • Read and write numbers to 1000.pdf: Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. <ul style="list-style-type: none"> - Cube Trails - Race for a Flat - High/Low Number Cube Throw - Lucky Five
2.NPV.4: Mentally add 10 or 100 to a given number in the range of 100-900 and mentally subtract 10 or 100 from a given number in the range of 100-900.	<ul style="list-style-type: none"> • Skip Count • Place Value • Number Chart • Number Patterns 	<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 (with spinner and numbers cards)
Comparison: Students use place value understanding to compare numbers.		
2.NPV.5: Compare two three-digit numbers using symbols ($>$, $=$, and $<$) based on the value of hundreds, tens, and ones in the given numbers.	<ul style="list-style-type: none"> • Greater Than, Less Than (3-digit Numbers) • 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 - Number Cards - $<$, $>$, $=$ Cards - Greater Than, Less Than, Equal To
Fraction Foundations: Students build a conceptual understanding of fractions.		
2.NPV.6: Partition circles and rectangles into two, three, or four equal shares, describing the shares using the words halves, thirds, and fourths (or quarters).	<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

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Fraction Foundations: Students build a conceptual understanding of fractions <i>continued</i>.		
<p>2.NPV.7: Recognize that equal shares of identical wholes need not have the same shape.</p>	<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
Computation & Algebraic Reasoning		
Operations & Properties: Students perform operations using place value understanding and properties of operations.		
<p>2.CAR.1: Use mental strategies to fluently add and subtract within 20 with mastery by the end of second grade.</p>	<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. <ul style="list-style-type: none"> - Sets of flashcards: - Addition—horizontal - Subtraction—horizontal - Addition—vertical - Subtraction—vertical - Addition and subtraction—horizontal and vertical
<p>2.CAR.2: Use computational fluency to add and subtract within 100 using strategies based on place value, properties of operations, or the relationship between addition and subtraction.</p>	<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"> • Adding or subtracting 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 Flashcards - Addition of Two-Digit Numbers - Tic Tac Toe - Subtraction of Two-Digit Numbers
<p>2.CAR.3: Add up to four two-digit numbers with sums not exceeding 100 using strategies based on place value and properties of operations.</p>	<ul style="list-style-type: none"> • Add Two-digit Numbers with Regrouping • Commutative Properties of Addition • Place Value 	<ul style="list-style-type: none"> • Adding four 2-digit numbers.pdf: Add up to four two-digit numbers using strategies based on place value and properties of operations. <ul style="list-style-type: none"> - Add Four Two-Digit Numbers



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ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Operations & Properties: Students perform operations using place value understanding and properties of operations <i>continued</i> .		
2.CAR.4: Use a number line to solve addition and subtraction problems within 100.	<ul style="list-style-type: none"> • Number Line 	
2.CAR.5: 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 	
2.CAR.6: Use concrete models, drawings, or equations to solve addition and subtraction problems within 1000.	<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 • Act Out Addition • Act Out Subtraction 	<ul style="list-style-type: none"> • Add and subtract within 1000.pdf: Add and subtract within 1,000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds. <ul style="list-style-type: none"> - Choose and Add - Mix and Match Addition - Expanded Subtraction - Subtracting Repeats - 999 - Prediction - Up and Away - Regrouping Treasure Hunt - Play Ball - Squirrel Facts - Number Cards

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Problem Solving: Students solve real-world problems.		
<p>2.CAR.7: Solve one and two-step real-world problems involving addition and subtraction within 100 in situations of adding to, taking from, putting together, taking apart, and comparing unknowns in all positions.</p>	<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
Algebraic Concepts: Students develop and apply understanding of foundational algebraic concepts.		
<p>2.CAR.8: Determine whether a group of objects up to 20 has an odd or even number of members; write an equation to express an even number as a sum of two equal addends.</p>	<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?
Geometry & Measurement		
Shapes: Students analyze attributes of shapes to develop generalizations about their properties.		
<p>2.GM.1: Identify, describe, and draw two-dimensional shapes. Shapes include: triangles, regular pentagons, regular hexagons, and quadrilaterals (square, rectangle, trapezoid, parallelogram, rhombus)</p>	<ul style="list-style-type: none"> • Songs: Shapes, Shapes, Shapes; Corners and Sides; Kites • Book: The Shape of Things • Space Shapes • World Shapes • Geoboard 	<ul style="list-style-type: none"> • Draw shapes.pdf: Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. <ul style="list-style-type: none"> - Making Shapes - Shapes Review
<p>2.GM.2: Identify and describe three-dimensional shapes based on the shape, number of faces, number of edges, and number of vertices. Shapes include: rectangular prisms, cubes, and square-based pyramids</p>	<ul style="list-style-type: none"> • Songs: Shapes, Shapes, Shapes; Corners and Sides; Kites • Book: The Shape of Things • Space Shapes • World Shapes • Geoboard 	<ul style="list-style-type: none"> • Draw shapes.pdf: Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. <ul style="list-style-type: none"> - Making Shapes - Shapes Review

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Length & Width: Students investigate measurement using rulers.		
<p>2.GM.3: Select appropriate measurement tools to estimate and measure the length of an object to the nearest whole inch or whole centimeters.</p>	<ul style="list-style-type: none"> • Song: Measuring Plants • Birds at My House • Length • Measurement Tools • Standard Units of Length 	<ul style="list-style-type: none"> • Measurement tools.pdf: Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. <ul style="list-style-type: none"> - Ready, Set, Measure - Treasure Hunt - Centimeter ruler - Inch Ruler - Let's Measure in Centimeters! - Let's Measure in Inches!
<p>2.GM.4: Demonstrate how the length of an object does not change, regardless of the units used to measure it, by measuring the length of an object twice; use two different length units, describing how the two measurements relate to the size of the chosen unit</p>	<ul style="list-style-type: none"> • Length • Standard Units of Length 	<ul style="list-style-type: none"> • Measuring the same object two ways.pdf: Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. <ul style="list-style-type: none"> - Ready, Set, Measure
<p>2.GM.5: Measure to determine how much longer or shorter one object is than another, expressing the length difference in terms of a standard length whole unit.</p>	<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
<p>2.GM.6: Solve real-world problems involving lengths of the same units, using addition and subtraction within 100.</p>	<ul style="list-style-type: none"> • Book: Yangshi's Perimeter • Addition • Subtraction • Length • Standard Units of Length 	<ul style="list-style-type: none"> • One- and two-step word problems within 100. pdf: Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, 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

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Perimeter, Area, & Volume: Students explore the perimeter and area of shapes.		
2.GM.7: Solve real-world and mathematical problems to find the perimeter of polygons.	<ul style="list-style-type: none"> • Book: Yangshi’s Perimeter • Addition 	
2.GM.8: Partition a rectangle into rows and columns of same-size squares, counting the total number of squares to find the area.	<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
Time & Money: Students explore time and money values and concepts.		
2.GM.9: Using an analog clock, tell and write time to the nearest five minutes using colon notation and indicate a.m. or p.m.	<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 	<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
2.GM.10: Describe relationships of time. Times include: seconds in a minute; minutes in an hour; hours in a day; days in a week; and days, weeks, and months in a year	<ul style="list-style-type: none"> • Songs: Days in a Month; Days of the Week; Months of the Year • Book: How Long Is a Minute • Compare Minutes to Hours • Calendar/Graph Weather 	
2.GM.11: Solve real-world problems involving addition and subtraction of time intervals in half hours or hours.	<ul style="list-style-type: none"> • Book: Mr. Romano’s Secret: A Time Story 	

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Time & Money: Students explore time and money values and concepts <i>continued</i>.		
<p>2.GM.12: Count collections of mixed coins and solve real-world problems involving quarters, dimes, nickels, and pennies within 99¢ and whole dollar amounts.</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¢
Data Analysis		
Charts, Graphs, & Tables: Students organize and analyze data.		
<p>2.DA.1: Use bar graphs, picture graphs, and line plots to organize and represent data, interpreting data with up to four categories.</p>	<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
<p>2.DA.2: Ask and answer simple put together, take apart, and compare problems, using information presented in the bar graphs, picture graphs, and line plots.</p>	<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

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
SCIENCE		
KINDERGARTEN		
FORCES AND INTERACTIONS: PUSHES AND PULLS		
Students who demonstrate understanding can:		
K-PS2-1 Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.	<ul style="list-style-type: none"> • Songs: The Scientific Method; Push and Pull • Push and Pull 	
K-PS2-2 Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.	<ul style="list-style-type: none"> • Song: Push and Pull • Push and Pull 	
WEATHER AND CLIMATE		
Students who demonstrate understanding can:		
K-PS3-1 Make observations to determine the effect of sunlight on Earth's surface.	<ul style="list-style-type: none"> • Songs: Water; Plants Are Growing; Sun Blues • Sun • Water • Rocks 	
K-PS3-2 Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.	Waterford encourages everyone to have writing, drawing, and art materials available for children's creations.	<ul style="list-style-type: none"> • Sun and Shade Pictures
K-ESS2-1 Use and share observations of local weather conditions to describe patterns over time.	<ul style="list-style-type: none"> • Song: Seasons • Book: That's What I Like: A Book About Seasons • Weather • Calendar/Graph Weather • Weather Patterns • Clouds • Spring • Summer • Fall • Winter 	<ul style="list-style-type: none"> • Learning Together: Weather; The Weather Around Us • Weather Cards

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<i>Students who demonstrate understanding can continued:</i>		
K-ESS3-2 Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.	<ul style="list-style-type: none"> • Songs: Precipitation; Storms • Book: Whatever the Weather • Weather Tools • Calendar/Graph Weather 	
INTERDEPENDENT RELATIONSHIPS IN ECOSYSTEMS: ANIMALS, PLANTS, AND THEIR ENVIRONMENT		
<i>Students who demonstrate understanding can:</i>		
K-LS1-1 Use observations to describe patterns of what plants and animals (including humans) need to survive.	<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
K-ESS2-2 Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.	<ul style="list-style-type: none"> • Books: Winter Snoozers; Birds at my House; The Old Maple Tree; Turtle’s Pond 	
K-ESS3-1 Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.	<ul style="list-style-type: none"> • Song: Four Ecosystems • Book: Where in the World Would You Go Today? • Oceans • Mountains • Deserts • Rainforests 	<ul style="list-style-type: none"> • Learning Together: Our Earth
K-ESS3-3 Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.	<ul style="list-style-type: none"> • Songs: Conservation; Pollution Rap • Pollution and Recycling • Care of Water • Care of Earth 	<ul style="list-style-type: none"> • More to Explore Experiment: Recycling • Learning Together: Our Earth

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
ENGINEERING, TECHNOLOGY, AND APPLICATIONS OF SCIENCE		
Students who demonstrate understanding can:		
<p>K-ETS1-1 Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</p>	<ul style="list-style-type: none"> • Song: Inventing • Books: Inventions All Around; I Want to Be a Scientist Like Wilbur and Orville Wright • Inventions 	<ul style="list-style-type: none"> • More to Explore Experiment: Recycling; Simple Machines
<p>K-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p>	<ul style="list-style-type: none"> • Books: How Did the Chicken Cross the Road?; Inventions All Around • Simple Machines 	
<p>K-ETS1-3 Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</p>	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Heat Movement • Movement of Heat • Properties of Light • Heat Experiment • Light Experiment 	<ul style="list-style-type: none"> • More to Explore Experiment: Evaporation
GRADE ONE		
WAVES: LIGHT AND SOUND		
Students who demonstrate understanding can:		
<p>1-PS4-1 Plan and conduct investigations to provide 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 • Sound Experiment 	<ul style="list-style-type: none"> • More to Explore Experiment: Sound
<p>1-PS4-2 Make observations to construct an evidence-based account that objects can be seen only when illuminated.</p>	<ul style="list-style-type: none"> • Books: My Family Campout; Lightning Bugs • Light Properties • Properties of Light • Light Experiment 	

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<i>Students who demonstrate understanding can continued:</i>		
1-PS4-3 Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.	<ul style="list-style-type: none"> • Book: My Family Campout • Light Properties • Light Experiment • Properties of Light 	
1-PS4-4 Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.	<ul style="list-style-type: none"> • Song: Inventing • Books: I Want to Be a Scientist Like Thomas Edison; Inventions All Around 	
STRUCTURE, FUNCTION, AND INFORMATION PROCESSING		
<i>Students who demonstrate understanding can:</i>		
1-LS1-1 Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.	<ul style="list-style-type: none"> • Books: I Wish I Had Ears Like a Bat; Animal Bodies; Fawn Eyes • Deserts 	
1-LS1-2 Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.	<ul style="list-style-type: none"> • Song: Animal Bodies • Animal Behavior • Animal Bodies 	
1-LS3-1 Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.	<ul style="list-style-type: none"> • Books: George and Jack; A Seed Grows • Build Knowledge: Mine 	<ul style="list-style-type: none"> • More to Explore Experiment: Traits
SPACE SYSTEMS: PATTERNS AND CYCLES		
<i>Students who demonstrate understanding can:</i>		
1-ESS1-1 Use observations of the sun, moon, and stars to describe patterns that can be predicted.	<ul style="list-style-type: none"> • Songs: The Moon; Sun Blues • Books: Moon Song; Star Pictures; My Family Campout • Sun • Moon • Constellations 	<ul style="list-style-type: none"> • More to Explore Experiment: The Moon • Learning Together: The Sky Above Us

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<i>Students who demonstrate understanding can continued:</i>		
1-ESS1-2 Make observations at different times of year to relate the amount of daylight to the time of year.	<ul style="list-style-type: none"> • Sun • Spring • Summer • Fall • Winter 	
ENGINEERING, TECHNOLOGY, AND APPLICATIONS OF SCIENCE		
<i>Students who demonstrate understanding can:</i>		
1-ETS1-1 Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.	<ul style="list-style-type: none"> • Song: Inventing • Books: Inventions All Around; I Want to Be a Scientist Like Wilbur and Orville Wright • Inventions 	<ul style="list-style-type: none"> • More to Explore Experiment: Recycling; Simple Machines
1-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.	<ul style="list-style-type: none"> • Books: How Did the Chicken Cross the Road?; Inventions All Around • Simple Machines 	
1-ETS1-3 Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Heat Movement • Movement of Heat • Properties of Light • Heat Experiment • Light Experiment 	<ul style="list-style-type: none"> • More to Explore Experiment: Evaporation
GRADE TWO		
STRUCTURE AND PROPERTIES OF MATTER		
<i>Students who demonstrate understanding can:</i>		
2-PS1-1 Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Changes in Matter • Movement of Heat • States of Water • Materials 	

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<i>Students who demonstrate understanding can continued:</i>		
2-PS1-2 Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Heat Movement • Movement of Heat • Heat Experiment 	
2-PS1-3 Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.	<ul style="list-style-type: none"> • Books: I Want to Be a Scientist Like Wilbur and Orville Wright; Inventions All Around • Geoboard • Tangrams 	
2-PS1-4 Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.	<ul style="list-style-type: none"> • Books: Warm Soup for Dedushka; Pancakes Matter • Changes in Matter • Movement of Heat 	
INTERDEPENDENT RELATIONSHIPS IN ECOSYSTEMS		
<i>Students who demonstrate understanding can:</i>		
2-LS2-1 Plan and conduct an investigation to determine if plants need sunlight and water to grow.	<ul style="list-style-type: none"> • Song: Plants Are Growing • Sun • Water • Plant Experiment • Healthy Plants' Needs 	<ul style="list-style-type: none"> • More to Explore Experiment: Light for Plants
2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.	<ul style="list-style-type: none"> • Books: The Bee's Secret; The Old Maple Tree 	
2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.	<ul style="list-style-type: none"> • Songs: Animal Bodies; Four Ecosystems • Books: Animal Bodies; Where in the World Would You Go Today? • Ecosystems • Animal Bodies • Animal Behavior 	<ul style="list-style-type: none"> • Learning Together: Places on Earth

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
EARTH'S SYSTEMS: PROCESSES THAT SHAPE THE EARTH		
Students who demonstrate understanding can:		
2-ESS1-1 Use information from several sources to provide evidence that Earth events can occur quickly or slowly.	<ul style="list-style-type: none"> • Songs: The Four Seasons; Rock Cycle • Books: That's What I Like: A Book About Seasons; Whatever the Weather; Fossils Under Our Feet • Rock Cycle • Fossils • Spring • Summer • Fall • Winter • Water 	<ul style="list-style-type: none"> • More to Explore Experiment: Rocks
2-ESS2-1 Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.	Waterford encourages everyone to have writing, drawing, and art materials available for children's creations.	
2-ESS2-2 Develop a model to represent the shapes and kinds of land and bodies of water in an area.	<ul style="list-style-type: none"> • Songs: Water; Precipitation; Water Is All Around • Water Sources • Water • Water Cycle • Oceans 	
2-ESS2-3 Obtain information to identify where water is found on Earth and that it can be solid or liquid.	<ul style="list-style-type: none"> • Songs: Water; Uses of Water; Precipitation; Water Is All Around • Water Sources • Water • Water Cycle • States of Water • Heat Changes Water 	

ARKANSAS STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
ENGINEERING, TECHNOLOGY, AND APPLICATIONS OF SCIENCE		
Students who demonstrate understanding can:		
2-ETS1-1 Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.	<ul style="list-style-type: none"> • Song: Inventing • Books: Inventions All Around; I Want to Be a Scientist Like Wilbur and Orville Wright • Inventions 	<ul style="list-style-type: none"> • More to Explore Experiment: Recycling; Simple Machines
2-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.	<ul style="list-style-type: none"> • Books: How Did the Chicken Cross the Road?; Inventions All Around • Simple Machines 	
2-ETS1-3 Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Heat Movement • Movement of Heat • Properties of Light • Heat Experiment • Light Experiment 	<ul style="list-style-type: none"> • More to Explore Experiment: Evaporation

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

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; Charley Chick; Adjectives Describe; Lazy Letter Q; Nouns; Verbs; Adverbs; Irregular Verbs; Preposition Cat; 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

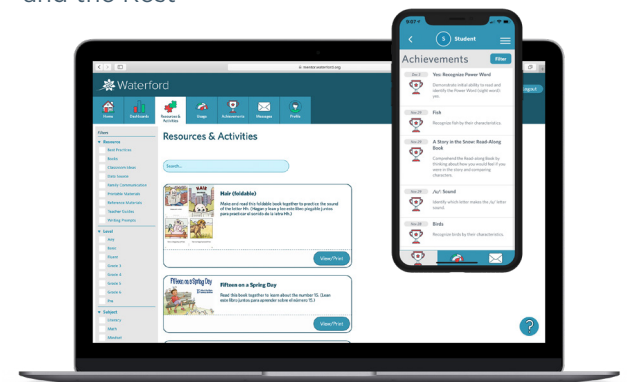
Naming Parts of the Body; First, Next, Last; One-to-One Correspondence; Opposites; Look at Details (identify same and different)

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).