



Alignment September 2025

100%
Aligned

**Waterford
Early Learning:
Math & Science**

**North Carolina
Standard Course of
Study Mathematics
2017 & Science 2023
for Kindergarten, 1st,
and 2nd Grades**

**Alignment content includes a sampling of Waterford Digital Activities and Resources*

This document provides a detailed alignment of **Waterford Early Learning** to **North Carolina Standard Course of Study Mathematics 2017 & Science 2023**.

Alignment Description

This document aligns North Carolina Standard Course of Study Mathematics 2017 & Science 2023 to Waterford.org's digital activities and supporting resources.

Waterford Digital Activities

Waterford programs include engaging, evidence-based digital activities anchored in the science of learning that progress through an adaptive learning path in reading, math, and science. These activities are also available for collaborative instruction at [→teacher.waterford.org](https://teacher.waterford.org).

- **Classroom Playlists** enable teachers to harness learning technologies in whole-class instruction, flexible small groups, and personalized support for individual students.

Waterford Resources

Waterford provides an engaging, diverse collection of PDF resources tailored to boost children's learning experiences, empowering instruction in both classroom and home settings.

- **Teacher Resources** encompass class activities, reference materials, teacher guides, an array of books, and more.
- **Family Resources** encompass newsletters, activity sets, and reference materials, all available in both English and Spanish.

Waterford Curriculum Details

Waterford programs leverage the science of learning and evidence-based research to optimize reading development, accelerate learning, and target interventions for PreK–2nd grade learners.

Adaptive, Individualized Learning

Tailored instruction enables students to progress through the sequence at their own pace, offering multiple opportunities for practice as needed and more challenging activities when students are ready. This adaptation is automatic within the learning sequence. More information on the adaptive learning sequence can be found in [→Waterford's Adaptive Learning Path in Action](#) video.

Data-Informed Instruction

Administrators and teachers can use the program's reporting features to monitor progress in real-time, identify areas of difficulty, and utilize additional intervention tools in varied instructional settings. Examples of the reporting features can be found [→here](#).

Research-Driven Development

Waterford is committed to ongoing development based on the latest research findings. Please note that this correlation is accurate as of the date on the cover.

Reading Sequence

Waterford's Reading Sequence is aligned to the Science of Reading, with explicit and systematic instruction. The sequence develops phonics; phonological awareness; comprehension and vocabulary; language concepts and writing; and fluency. More detailed information can be found in the [→Reading Skills Scope & Sequence](#).

Math and Science Sequence

Waterford's Math and Science Sequence is designed around clear instructional principles. The math sequence develops numbers and operations (including counting and cardinality); operations and algebraic thinking; measurement and data; and geometry. The science sequence develops an understanding of physical, life, earth and space domains. More detailed information can be found in the [→Math and Science Scope & Sequence](#).

SmartStart Sequence

Waterford's SmartStart Sequence is designed so learners are exposed to the foundational principles critical to kindergarten readiness. SmartStart combines the digital learning path with teacher resources to teach early reading, math, science, and social studies concepts as well as executive function, creative arts, health, and physical development. More detailed information can be found in the [→SmartStart Scope & Sequence](#).

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North Carolina Standards	Waterford Digital Resources	Waterford Resources
Mathematics		
Kindergarten		
Counting and Cardinality		
Know number names and the counting sequence.		
NC.K.CC.1 Know number names and recognize patterns in the counting sequence by: <ul style="list-style-type: none"> • Counting to 100 by ones. • Counting to 100 by tens. 	<ul style="list-style-type: none"> • Songs: Skip Counting • Books: Navajo Beads; Jump Rope Rhymes • Number Songs • Counting Songs • Number Counting • Number Instruction • Skip Counting • Skip Count by 10 	<ul style="list-style-type: none"> • Count to 100 By Ones and Tens
NC.K.CC.2 Count forward beginning from a given number within the known sequence, instead of having to begin at 1.	<ul style="list-style-type: none"> • Count On • Counting Songs 	<ul style="list-style-type: none"> • Count Forward
NC.K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20, with 0 representing a count of no objects.	<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

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Count to tell the number of objects.		
<p>NC.K.CC.4 Understand the relationship between numbers and quantities. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object (one-to-one correspondence).</p> <ul style="list-style-type: none"> • Recognize that the last number named tells the number of objects counted regardless of their arrangement (cardinality). • State the number of objects in a group, of up to 5 objects, without counting the objects (perceptual subitizing). 	<ul style="list-style-type: none"> • Counting Songs • Number Songs • Order Numbers • One-to-one Correspondence • Make and Count Groups • Number Counting • Number Instruction • Match Numbers • Moving Target (Dots) • Dominoes 	<ul style="list-style-type: none"> • Object Counting Basics • Object Counting Grouping
<p>NC.K.CC.5 Count to answer “How many?” in the following situations:</p> <ul style="list-style-type: none"> • Given a number from 1–20, count out that many objects. • Given up to 20 objects, name the next successive number when an object is added, recognizing the quantity is one more/greater. • Given 20 objects arranged in a line, a rectangular array, and a circle, identify how many. • Given 10 objects in a scattered arrangement, identify how many. 	<ul style="list-style-type: none"> • Counting Songs • Number Songs • Make and Count Groups • Number Counting • Numbers Review • One-to-one Correspondence • Count On by 1 • Number Instruction 	<ul style="list-style-type: none"> • How Many?

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Compare numbers.		
NC.K.CC.6 Identify whether the number of objects, within 10, in one group is greater than, less than, or equal to the number of objects in another group, by using matching and counting strategies.	<ul style="list-style-type: none"> Songs: Greater Than, Less Than Books: 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
NC.K.CC.7 Compare two numbers, within 10, presented as written numerals.	<ul style="list-style-type: none"> Songs: Greater Than, Less Than Books: For the Birds Greater Than, Less Than More Than, Fewer Than More Than Fewer Than 	<ul style="list-style-type: none"> Compare Two Numbers
Operations and Algebraic Thinking		
Understand addition and subtraction.		
NC.K.OA.1 Represent addition and subtraction, within 10: <ul style="list-style-type: none"> Use a variety of representations such as objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, or expressions. Demonstrate understanding of addition and subtraction by making connections among representations. 	<ul style="list-style-type: none"> Songs: Addition; On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction Books: 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

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Understand addition and subtraction <i>continued</i>.		
NC.K.OA.2 Solve addition and subtraction word problems, within 10, using objects or drawings to represent the problem, when solving: <ul style="list-style-type: none"> • Add to/Take From-Result Unknown • Put Together/ Take Apart (Total Unknown and Two Addends Unknown) 	<ul style="list-style-type: none"> • Songs: Addition; On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction • Books: Five Delicious Muffins • Add Groups • Subtract Groups • Minuends • Sums • Act Out Addition • Act Out Subtraction • Missing Addends • Missing Minuends and Subtrahends 	<ul style="list-style-type: none"> • Addition and Subtraction Word Problems
NC.K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects or drawings, and record each decomposition by a drawing or expression.	<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
NC.K.OA.4 For any number from 0 to 10, find the number that makes 10 when added to the given number using objects or drawings, and record the answer with a drawing or expression.	<ul style="list-style-type: none"> • Make 10 • Missing Addends 	<ul style="list-style-type: none"> • Numbers that Make 10
NC.K.OA.5 Demonstrate fluency with addition and subtraction within 5.	<ul style="list-style-type: none"> • Songs: Addition; On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction • Books: Five Delicious Muffins • Add Groups • Subtract Groups • Minuends • Sums • Act Out Addition • Act Out Subtraction 	

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Understand addition and subtraction <i>continued.</i>		
NC.K.OA.6 Recognize and combine groups with totals up to 5 (conceptual subitizing).	<ul style="list-style-type: none"> • Make and Count Groups • Add Groups • Act Out Addition 	
Number and Operations in Base Ten		
Build foundation for place value.		
NC.K.NBT.1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones by: <ul style="list-style-type: none"> • Using objects or drawings. • Recording each composition or decomposition by a drawing or expression. • Understanding 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 	<ul style="list-style-type: none"> • Tens and Ones
Measurement and Data		
Describe and compare measurable attributes.		
NC.K.MD.1 Describe measurable attributes of objects; and describe several different measurable attributes of a single object.	<ul style="list-style-type: none"> • Songs: Measuring Plants • Length 	<ul style="list-style-type: none"> • Measurable Attributes
NC.K.MD.2 Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference.	<ul style="list-style-type: none"> • Songs: Savanna Size, Measuring Plants • Capacity • Length • Weight • Big and Little • Tall and Short • Heavy and Light 	<ul style="list-style-type: none"> • Comparing Objects

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Classify objects and count the number of objects in each category.		
NC.K.MD.3 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"> Songs: Same and Different; All Sorts of Laundry Books: Buttons, Buttons Sort Make and Count Groups 	<ul style="list-style-type: none"> Classifying Objects
Geometry		
Identify and describe shapes.		
NC.K.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of objects using positional terms.	<ul style="list-style-type: none"> Songs: Position Cat; Kites; Get Over the Bugs; Shapes, Shapes, Shapes Books: The Shape of Things; Imagination Shapes; Up In the Air Position Over, Under, Above, Below Inside, Outside, Between Circle, Square, Triangle, Rectangle Star, Semicircle, Octagon, Oval, Rhombus Simple Shapes Solid Shapes World Shapes Above, Below, Next to, On 	<ul style="list-style-type: none"> Describing Objects
NC.K.G.2 Correctly name squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres regardless of their orientations or overall size.	<ul style="list-style-type: none"> Songs: Shapes, Shapes, Shapes; Marmot 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"> Shape Recognition
NC.K.G.3 Identify squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres as two-dimensional or three-dimensional.	<ul style="list-style-type: none"> Solid Shapes Space Shapes Simple Shapes 	<ul style="list-style-type: none"> Two-Dimensional Shapes

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Analyze, compare, create, and compose shapes.		
NC.K.G.4 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, attributes and other properties.	<ul style="list-style-type: none"> Songs: Corners and Sides Simple Shapes Solid Shapes Space Shapes Congruence Tangrams Similar Figures 	<ul style="list-style-type: none"> Compare Shapes
NC.K.G.5 Model shapes in the world by: <ul style="list-style-type: none"> Building and drawing triangles, rectangles, squares, hexagons, circles. Building cubes, cones, spheres, and cylinders. 	<ul style="list-style-type: none"> Geoboard Tangrams 	<ul style="list-style-type: none"> Model Shapes
NC.K.G.6 Compose larger shapes from simple shapes.	<ul style="list-style-type: none"> Geoboard Tangrams 	<ul style="list-style-type: none"> Form Larger Shapes
First Grade		
Operations and Algebraic Thinking		
Represent and solve problems.		
NC.1.OA.1 Represent and solve addition and subtraction word problems, within 20, with unknowns, by using objects, drawings, and equations with a symbol for the unknown number to represent the problem, when solving: <ul style="list-style-type: none"> Add to/Take from-Change Unknown Put together/Take Apart-Addend Unknown Compare-Difference Unknown 	<ul style="list-style-type: none"> Songs: Fact Families; Doubles Books: Facts About Families Addition and Subtraction Fact Families Addition and Subtraction Relationship Unknown Addends Minuends Missing Minuends and Subtrahends 	<ul style="list-style-type: none"> Word Problems Using Subtraction Within 20

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Represent and solve problems <i>continued</i>.		
NC.1.OA.2 Represent and solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, by using objects, drawings, and equations with a symbol for the unknown number.	<ul style="list-style-type: none"> • Add 3 One-digit Numbers 	<ul style="list-style-type: none"> • Word Problems Adding 3 Numbers
Understand and apply the properties of operations.		
NC.1.OA.3 Apply the commutative and associative properties as strategies for solving addition problems.	<ul style="list-style-type: none"> • Addition and Subtraction Relationship • Addition and Subtraction Fact Families • Addition Patterns • Commutative Property of Addition 	<ul style="list-style-type: none"> • Strategies To Add And Subtract
NC.1.OA.4 Solve an unknown-addend problem, within 20, by using addition strategies and/or changing it to a subtraction problem.	<ul style="list-style-type: none"> • Missing Addends • Subtraction Patterns • Addition and Subtraction Fact Families 	<ul style="list-style-type: none"> • Understand Subtraction As An Unknown Addend Problem
Add and subtract within 20.		
NC.1.OA.9 Demonstrate fluency with addition and subtraction within 10.	<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 • Addition Patterns • Subtraction Patterns 	<ul style="list-style-type: none"> • Add and Subtract within 20

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Add and subtract within 20 <i>continued</i>.		
NC.1.OA.6 Add and subtract, within 20, using strategies such as: <ul style="list-style-type: none"> • Counting on • Making ten • Decomposing a number leading to a ten • Using the relationship between addition and subtraction • Using a number line • Creating equivalent but simpler or known sums 	<ul style="list-style-type: none"> • Songs: Fact Families; Counting On; Milton's Mittens • 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 • Subtraction Patterns • Addition Patterns • Number Line 	<ul style="list-style-type: none"> • Add and Subtract within 20
Analyze addition and subtraction equations within 20.		
NC.1.OA.7 Apply understanding of the equal sign to determine if equations involving addition and subtraction are true.	<ul style="list-style-type: none"> • Songs: Fact Families • Books: 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
NC.1.OA.8 Determine the unknown whole number in an addition or subtraction equation involving three whole numbers.	<ul style="list-style-type: none"> • Addition Sentences • Subtraction Sentences • Addition and Subtraction Fact Families • Missing Addends • Missing Minuends and Subtrahends 	

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Number and Operations in Base Ten		
Extend and recognize patterns in the counting sequence.		
NC.1.NBT.1 Count to 150, starting at any number less than 150.	<ul style="list-style-type: none"> Songs: Counting On Count On Number Chart Logic Game (Number Patterns) 	
NC.1.NBT.7 Read and write numerals, and represent a number of objects with a written numeral, to 100.	<ul style="list-style-type: none"> Songs: Counting On Count On Number Chart 	<ul style="list-style-type: none"> Count to 120
Understand place value.		
NC.1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. <ul style="list-style-type: none"> Unitize by making a ten from a collection of ten ones. Model the numbers from 11 to 19 as composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. Demonstrate that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens, with 0 ones. 	<ul style="list-style-type: none"> Songs: Place Value Place Value of 2-digit Numbers Add with Manipulatives 	<ul style="list-style-type: none"> Tens as a Bundle of Ones 11-19 Broken Down Ten Groupings
NC.1.NBT.3 Compare two two-digit numbers based on the value of the tens and ones digits, recording the results of comparisons with 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

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Use place value understanding and properties of operations.		
NC.1.NBT.4 Using concrete models or drawings, strategies based on place value, properties of operations, and explaining the reasoning used, add, within 100, in the following situations: <ul style="list-style-type: none"> • A two-digit number and a one-digit number • A two-digit number and a multiple of 10 	<ul style="list-style-type: none"> • Addition • Add Tens • 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
NC.1.NBT.5 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"> • Songs: Skip Counting • Books: Navajo Beads • Add • Subtract • Add Tens • Subtract Tens • Skip Count by 10 • Number Chart 	<ul style="list-style-type: none"> • Ten More or Less
NC.1.NBT.6 Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90, explaining the reasoning, using: <ul style="list-style-type: none"> • Concrete models and drawings • Number lines • Strategies based on place value • Properties of operations • The relationship between addition and subtraction 	<ul style="list-style-type: none"> • Subtraction • Subtract Tens • Subtraction Patterns • Subtract • Use Manipulatives • Make 10 Subtraction Strategy • Number Line • Number Chart • Place Value • Addition and Subtraction Relationship 	<ul style="list-style-type: none"> • Subtracting in 10s • Add and Subtract within 100

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Measurement and Data		
Measure lengths.		
NC.1.MD.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.	<ul style="list-style-type: none"> Length Nonstandard Units of Length 	<ul style="list-style-type: none"> Order by Length
NC.1.MD.2 Measure lengths with non-standard units. <ul style="list-style-type: none"> Express the length of an object as a whole number of non-standard length units. Measure by laying multiple copies of a shorter object (the length unit) end to end (iterating) with no gaps or overlaps. 	<ul style="list-style-type: none"> Length Nonstandard Units of Length 	<ul style="list-style-type: none"> Length Measurement
Build understanding of time and money.		
NC.1.MD.3 Tell and write time in hours and half-hours using analog and digital clocks.	<ul style="list-style-type: none"> Songs: 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
NC.1.MD.5 Identify quarters, dimes, and nickels and relate their values to pennies.	<ul style="list-style-type: none"> Songs: Money; Save Your Pennies Books: 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 	

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Represent and interpret data.		
NC.1.MD.4 Organize, represent, and interpret data with up to three categories. <ul style="list-style-type: none"> • Ask and answer questions about the total number of data points. • Ask and answer questions about how many in each category. • Ask and answer questions about how many more or less are in one category than in another. 	<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
Geometry		
Reason with shapes and their attributes.		
NC.1.G.1 Distinguish between defining and non-defining attributes and create shapes with defining attributes by: <ul style="list-style-type: none"> • Building and drawing triangles, rectangles, squares, trapezoids, hexagons, circles. • Building cubes, rectangular prisms, cones, spheres, and cylinders. 	<ul style="list-style-type: none"> • Songs: Corners and Sides; Kites • Geoboard • Space Shapes 	<ul style="list-style-type: none"> • Attributes
NC.1.G.2 Create composite shapes by: <ul style="list-style-type: none"> • Making a two-dimensional composite shape using rectangles, squares, trapezoids, triangles, and half-circles naming the components of the new shape. • Making a three-dimensional composite shape using cubes, rectangular prisms, cones, and cylinders, naming the components of the new shape. 	<ul style="list-style-type: none"> • Songs: Kites • Space Shapes • Geoboard • Tangrams 	<ul style="list-style-type: none"> • Form Larger Shapes

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Reason with shapes and their attributes <i>continued.</i>		
<p>NC.1.G.3 Partition circles and rectangles into two and four equal shares.</p> <ul style="list-style-type: none"> • Describe the shares as halves and fourths, as half of and fourth of. • Describe the whole as two of, or four of the shares. • Explain that decomposing into more equal shares creates smaller shares. 	<ul style="list-style-type: none"> • Songs: 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
Second Grade		
Operations and Algebraic Thinking		
Represent and solve problems.		
<p>NC.2.OA.1 Represent and solve addition and subtraction word problems, within 100, with unknowns in all positions, by using representations and equations with a symbol for the unknown number to represent the problem, when solving:</p> <ul style="list-style-type: none"> • One-Step problems: <ul style="list-style-type: none"> Add to/Take from-Start Unknown Compare-Bigger Unknown Compare-Smaller Unknown • Two-Step problems involving single digits: <ul style="list-style-type: none"> Add to/Take from- Change Unknown Add to/Take From- Result Unknown 	<ul style="list-style-type: none"> • Books: 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

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Add and subtract within 20.		
NC.2.OA.2 Demonstrate fluency with addition and subtraction, within 20, using mental strategies.	<ul style="list-style-type: none"> Songs: Fact Families; Doubles Subtraction Patterns Addition Facts to 20 	<ul style="list-style-type: none"> Add and Subtract within 20
Work with equal groups.		
NC.2.OA.3 Determine whether a group of objects, within 20, has an odd or even number of members by: <ul style="list-style-type: none"> Pairing objects, then counting them by 2s. Determining whether objects can be placed into two equal groups. Writing an equation to express an even number as a sum of two equal addends. 	<ul style="list-style-type: none"> Songs: Odd Todd and Even Steven; Skip Counting Skip Count by 2 Addition Facts Divide by 2 Make and Count Groups Doubles 	<ul style="list-style-type: none"> Odd and Even Recognition
NC.2.OA.4 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 	

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Number and Operations in Base Ten		
Understand place value.		
<p>NC.2.NBT.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones.</p> <ul style="list-style-type: none"> • Unitize by making a hundred from a collection of ten tens. • Demonstrate that the numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds, with 0 tens and 0 ones. • Compose and decompose numbers using various groupings of hundreds, tens, and ones. 	<ul style="list-style-type: none"> • Songs: Place Value • Place Value • Place Value of 3-digit Numbers • Expanded Notation 	<ul style="list-style-type: none"> • Thinking of 100 as a Bundle of Ten 10s • Grouping Hundreds
<p>NC.2.NBT.2 Count within 1,000; skip-count by 5s, 10s, and 100s.</p>	<ul style="list-style-type: none"> • Songs: Skip Counting • Books: Jump Rope Rhymes • Skip Count • Skip Count by 10 • Skip Count by 5 • Number Sequences and Patterns 	<ul style="list-style-type: none"> • Counting Within 1000
<p>NC.2.NBT.3 Read and write numbers, within 1,000, using base-ten numerals, number names, and expanded form.</p>	<ul style="list-style-type: none"> • Sequences of 2-digit Numbers • Sequences of 3-digit Numbers • Number Chart • Place Value 	<ul style="list-style-type: none"> • Read and Write Numbers to 1000
<p>NC.2.NBT.4 Compare two three-digit numbers based on the value of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p>	<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

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Use place value understanding and properties of operations.		
<p>NC.2.NBT.5 Demonstrate fluency with addition and subtraction, within 100, by:</p> <ul style="list-style-type: none"> • Flexibly using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. • Comparing addition and subtraction strategies, and explaining why they work. • Selecting an appropriate strategy in order to efficiently compute sums and differences. 	<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 • Place Value • Number Line • Act Out Addition • Act Out Subtraction 	<ul style="list-style-type: none"> • Add and Subtract within 100 • Explaining Addition and Subtraction Strategies
<p>NC.2.NBT.6 Add up to three two-digit numbers 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
<p>NC.2.NBT.7 Add and subtract, within 1,000, relating the strategy to a written method, using:</p> <ul style="list-style-type: none"> • Concrete models or drawings • Strategies based on place value • Properties of operations • 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 • Act Out Addition • Act Out Subtraction 	<ul style="list-style-type: none"> • Add and Subtract Within 1000

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Use place value understanding and properties of operations <i>continued</i>.		
NC.2.NBT.8 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"> • Skip Count • Place Value • Number Chart • Number Patterns • Mental Math Games 	<ul style="list-style-type: none"> • Mentally Adding or Subtracting 10 or 100
Measurement and Data		
Measure and estimate lengths.		
NC.2.MD.1 Measure the length of an object in standard units by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	<ul style="list-style-type: none"> • Songs: Measuring Plants • Books: Birds at My House • Length • Measurement Tools • Standard Units of Length 	<ul style="list-style-type: none"> • Measurement Tools
NC.2.MD.2 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"> • Length • Standard Units of Length • Measurement Tools 	<ul style="list-style-type: none"> • Measuring the Same Object Two Ways
NC.2.MD.3 Estimate lengths in using standard units of inches, feet, yards, centimeters, and meters.	<ul style="list-style-type: none"> • Songs: Measuring Plants • Length • Standard Units of Length • Measurement Tools 	<ul style="list-style-type: none"> • Estimating Lengths
NC.2.MD.4 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"> • Length • Standard Units of Length 	<ul style="list-style-type: none"> • Measure Length

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Relate addition and subtraction to length.		
NC.2.MD.5 Use addition and subtraction, within 100, to solve word problems involving lengths that are given in the same units, using equations with a symbol for the unknown number to represent the problem.	<ul style="list-style-type: none"> • Books: Yangshi's Perimeter • Addition • Subtraction • Length • Standard Units of Length 	<ul style="list-style-type: none"> • One- and Two-Step Word Problems within 100
NC.2.MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points and represent whole-number sums and differences, within 100, on a number line.	<ul style="list-style-type: none"> • Number Line • Length 	
Build understanding of time and money.		
NC.2.MD.7 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"> • 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

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Build understanding of time and money <i>continued</i>.		
NC.2.MD.8 Solve word problems involving: <ul style="list-style-type: none"> Quarters, dimes, nickels, and pennies within 99¢, using ¢ symbols appropriately. Whole dollar amounts, using the \$ symbol appropriately. 	<ul style="list-style-type: none"> Songs: Money; Save Your Pennies Books: 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 Make Change Count Bills and Coins Equivalent Sums of Money 	<ul style="list-style-type: none"> Solve Money Word Problems
Represent and interpret data.		
NC.2.MD.10 Organize, represent, and interpret data with up to four categories. <ul style="list-style-type: none"> Draw a picture graph and a bar graph with a single-unit scale to represent a data set. Solve simple put-together, take-apart, and compare problems using information presented in a picture and a bar graph. 	<ul style="list-style-type: none"> Songs: Graphing Graphing Bar Graphs Picture Graphs Use Graphs and Tables 	<ul style="list-style-type: none"> Graphs
Geometry		
Reason with shapes and their attributes.		
NC.2.G.1 Recognize and draw triangles, quadrilaterals, pentagons, and hexagons, having specified attributes; recognize and describe attributes of rectangular prisms and cubes.	<ul style="list-style-type: none"> Songs: Shapes, Shapes, Shapes; Corners and Sides; Kites Books: The Shape of Things Space Shapes World Shapes Geoboard 	<ul style="list-style-type: none"> Draw Shapes

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Reason with shapes and their attributes <i>continued.</i>		
<p>NC.2.G.3 Partition circles and rectangles into two, three, or four equal shares.</p> <ul style="list-style-type: none"> • Describe the shares using the words halves, thirds, half of, a third of, fourths, fourth of, quarter of. • Describe the whole as two halves, three thirds, four fourths. • Explain that equal shares of identical wholes need not have the same shape. 	<ul style="list-style-type: none"> • Songs: 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
Science		
Kindergarten		
Matter and its Interactions		
PS.K.1 Understand how objects are described based on their physical properties and how they are used.		
<p>PS.K.1.1 Analyze and interpret data to classify objects by physical properties (size, color, shape, texture, weight and flexibility).</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 	
<p>PS.K.1.2 Engage in argument from evidence to summarize how different materials (clay, wood, cloth, paper, etc.) are used based on their physical properties.</p>	<ul style="list-style-type: none"> • Songs: Push and Pull; Gravity • Books: Mr. Mario's Neighborhood; The Big Hill; Up and Down • Gravity • Push and Pull • Rock Cycle 	<ul style="list-style-type: none"> • Air Movement • How It Works

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Motion and Stability- Forces and Interactions		
PS.K.2 Understand the positions and motions of objects an organisms observed in the environment.		
PS.K.2.1 Use models to compare the relative position of various objects observed in the classroom and outside using position words such as: in front of, behind, between, on top of, under, above, below, beside.	<ul style="list-style-type: none"> Songs: Savanna Size; Shapes, Shapes, Shapes Capacity Length Weight Heavy and Light Tall and Short Big and Little Density 	
PS.K.2.2 Carry out investigations to illustrate different ways objects and organisms move (to include falling to the ground when dropped): straight, zigzag, round and round, back and forth, fast and slow.	<ul style="list-style-type: none"> Materials Density Experiment Buoyancy Experiment 	
From Molecules to Organisms- Structures and Processes		
LS.K.1 Understand the characteristics of living organisms and nonliving things.		
LS.K.1.1 Engage in argument from evidence to summarize the characteristics of living organisms and nonliving things in terms of their: structure, growth, changes, movement, basic needs.	<ul style="list-style-type: none"> Songs: The Five Senses; Seasons Books: That's What I Like: A Book About Seasons Science Tools Sight Hearing Touch Smell Spring Summer Fall Winter Rock Cycle Living or Nonliving 	

North Carolina Standards	Waterford Digital Resources	Waterford Resources
LS.K.1 Understand the characteristics of living organisms and nonliving things <i>continued</i>.		
LS.K.1.2 Use models to exemplify how animals use their body parts to obtain food and other resources, protect themselves, and move from place to place.	<ul style="list-style-type: none"> Songs: Living and Nonliving Books: Animal Bodies 	<ul style="list-style-type: none"> Living Things
Heredity- Inheritance and Variation of Traits		
LS.K.2 Understand characteristics of organisms that make them alike and different.		
LS.K.2.1 Analyze and interpret data to compare the characteristics of different types of the same animal to determine individual similarities and differences.	<ul style="list-style-type: none"> Songs: Seasons Books: 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"> Weather The Weather Around Us Weather Cards
LS.K.2.2 Analyze and interpret data to compare the characteristics of different types of the same plant to determine individual similarities and differences.	<ul style="list-style-type: none"> Songs: Seasons Books: That's What I Like: A Book About Seasons Weather Calendar/Graph Weather Weather Patterns Spring Summer Fall Winter 	<ul style="list-style-type: none"> Weather The Weather Around Us Weather Cards Weather Patterns

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Earth, Space, and Solar Systems		
Earth's Systems		
ESS.K.1 Understand change and observable patterns of weather that occur from day to day and throughout the year.		
ESS.K.1.1 Analyze and interpret data to compare changes in the environment due to weather.	<ul style="list-style-type: none"> Songs: Animal Bodies; Birds; Vertebrates; Fish; Invertebrates Weather Food From Plants Animal Bodies Desserts Mountains Rainforests Worms Science Investigation 	
ESS.K.1.2 Use mathematics and computational thinking to summarize daily weather conditions noting changes that occur from day to day and throughout the year.	<ul style="list-style-type: none"> Songs: Measuring Plants; Animal Bodies; Living and Nonliving Books: Animal Bodies Living or Nonliving Animal Behavior Animals Need Water Living Things Animal Bodies Rock Cycle 	
ESS.K.1.3 Obtain, evaluate and communicate information to compare weather patterns that occur from season to season.	<ul style="list-style-type: none"> Songs: Seasons Weather Calendar/Graph Weather Weather Patterns Spring Summer Fall Winter 	

North Carolina Standards	Waterford Digital Resources	Waterford Resources
First Grade		
Physical Science		
Motion and Stability- Forces and Interactions		
PS.1.1 Understand how forces (pushes or pulls) affect the motion of an object.		
PS.1.1.1 Use models to explain the effect of a push or pull on the motion of an object, with or without contact.	<ul style="list-style-type: none"> Songs: Push and Pull Books: Mr. Mario's Neighborhood Push and Pull 	<ul style="list-style-type: none"> How It Works
PS.1.1.2 Carry out investigations to compare the effects of a given force on the motion of an object.	<ul style="list-style-type: none"> Songs: Push and Pull Books: Mr. Mario's Neighborhood Push and Pull 	<ul style="list-style-type: none"> How It Works
Life Science		
Ecosystems- Interactions, Energy, and Dynamics		
LS.1.1 Understand the basic needs of a variety of plants and animals in different ecosystems.		
LS.1.1.1 Obtain, evaluate and communicate information to summarize the needs of different plants and animals.	<ul style="list-style-type: none"> Books: Animal Bodies Songs: Measuring Plants Plant Experiment Plant Life Cycle and Growth Plants Functions of Plant Parts Plants Need Water Animal Life Cycle and Growth Animal Behavior 	<ul style="list-style-type: none"> Water for Plants Animal Bodies
LS.1.1.2 Analyze and interpret data to compare how the needs of plants and animals can be met in different environments.	<ul style="list-style-type: none"> Songs: The Moon Books: Moon Song Moon Moon Patterns 	

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Earth, Space, and Solar Systems		
Earth's Systems		
ESS.1.2 Understand the physical properties of Earth materials		
ESS.1.2.1 Obtain, evaluate and communicate information to summarize the physical properties of Earth materials, including rocks, minerals, soils, and water.	<ul style="list-style-type: none"> • Books: Water Is All Around • Rocks • Rock Cycle • Soil • Water • Water Cycle • Materials • Density Experiment • Buoyancy Experiment 	<ul style="list-style-type: none"> • Rocks
ESS.1.2.2 Carry out investigations to compare the properties of different soil samples from local places relating their capacity to retain water, provide nutrients, and support the growth of plants.	<ul style="list-style-type: none"> • Songs: Four Ecosystems • Books: Where in the World Would You Go Today? • Soil • Mountains • Deserts • Rainforests 	<ul style="list-style-type: none"> • Our Earth
Earth and Human Activity		
ESS.1.3 Understand that natural resources are important to humans.		
ESS.1.3.1 Obtain, evaluate and communicate information to summarize ways in which humans use natural resources.	<ul style="list-style-type: none"> • Songs: Water; Food From Plants; Plants Are Growing • Books: Mela's Water Pot; Everybody Needs to Eat • Sun • Plants • Water • Animals Need Water • Plants Need Water • Plants and Animals Need Air • Healthy Plants' Needs • Living Things • Pollution and Recycling • Care of Water • Care of Earth 	<ul style="list-style-type: none"> • Water For Plants • Green And Growing • Recycling

North Carolina Standards	Waterford Digital Resources	Waterford Resources
ESS.1.3 Understand that natural resources are important to humans <i>continued</i>.		
ESS.1.3.2 Engage in argument from evidence to explain ways that humans can protect natural resources in the environment.	<ul style="list-style-type: none"> Songs: Water; Food From Plants; Plants Are Growing Living Things Pollution and Recycling Care of Water Care of Earth 	
Molecular Biology		
1.L.2 Summarize the needs of living organisms for energy and growth.		
1.L.2.1 Summarize the basic needs of a variety of different plants (including air, water, nutrients, and light) for energy and growth.	<ul style="list-style-type: none"> Songs: Water Books: Mela's Water Pot Sun Plants Water Plants and Animals Need Air Healthy Plants' Needs 	<ul style="list-style-type: none"> Water For Plants Green And Growing
1.L.2.2 Summarize the basic needs of a variety of different animals (including air, water, and food) for energy and growth.	<ul style="list-style-type: none"> Songs: Water; Food From Plants Books: Mela's Water Pot; Everybody Needs to Eat Water Plants and Animals Need Air Animals Need Water 	

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Second Grade		
Physical Science		
Strand: Matter and its Interactions		
PS.2.1 Understand properties of solids and liquids and the changes they undergo.		
PS.2.1.1 Carry out investigations to illustrate examples of matter that can change from a solid to a liquid and from a liquid to a solid by heating and cooling.	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Heat Movement • Movement of Heat • Heat Experiment • Changes in Matter • Science Investigation • States of Water 	
PS.2.1.2 Analyze and interpret data to compare the amount (volume and weight) of water in a container before and after freezing.	<ul style="list-style-type: none"> • Songs: Warm Soup for Dedushka; Precipitation; Solid or Liquid • Book: Warm Soup for Dedushka; Whatever the Weather; Pancakes Matter • Solid or Liquid • Heat Movement • Movement of Heat • Heat Experiment 	
PS.2.1.3 Analyze and interpret data to compare the amount (volume and weight) of water left in an open container over time to the water left in a closed container.	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Heat Movement • Movement of Heat • Heat Experiment 	

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Waves and Their Applications in Technologies for Information Transfer		
PS.2.2 Understand the relationship between sound and vibrating objects.		
PS.2.2.1 Carry out investigations to illustrate how sound is produced by vibrating objects and columns of air.	<ul style="list-style-type: none"> Song: Sound Book: What Sounds Say Sound Waves 	<ul style="list-style-type: none"> Sound
PS.2.2.2 Use models to summarize the relationship between sound and how sounds are produced and detected by parts of the body that vibrate.	<ul style="list-style-type: none"> Song: Sound Book: What Sounds Say Sound Waves 	<ul style="list-style-type: none"> Sound
Life Science		
From Molecules to Organisms- Structures and Processes		
LS.2.1 Understand animal life cycles.		
LS.2.1.1 Use models to summarize the life cycle of animals including: birth, developing into an adult, reproducing, aging and death.	<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 Bird Life Cycle Frog Life Cycle Amphibians
LS.2.1.2 Obtain, evaluate and communicate information to compare life cycles of different animals.	<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 Bird Life Cycle Frog Life Cycle Amphibians

North Carolina Standards	Waterford Digital Resources	Waterford Resources
Heredity - Inheritance and Variation of Traits		
LS.2.2 Understand that organisms differ from or are similar to their parents and other offspring based on characteristics of the organism.		
LS.2.2.1 Obtain, evaluate, and communicate information to summarize ways in which animals closely resemble their parents and ways they are different.	<ul style="list-style-type: none"> Books: George and Jack; A Seed Grows Build Knowledge: 	<ul style="list-style-type: none"> Traits
LS.2.2.2 Analyze and interpret data to illustrate variations among offspring of the same parents.	<ul style="list-style-type: none"> Books: George and Jack; A Seed Grows Build Knowledge: 	<ul style="list-style-type: none"> Traits
Earth, Space, and Solar Systems		
Earth's Systems		
ESS2.1 Understand patterns of weather and factors that affect weather.		
ESS.2.1.1 Obtain, evaluate, and communicate information to summarize how energy from the sun serves as a source of light and warms the land, air, and water.	<ul style="list-style-type: none"> Songs: Seasons Books: That's What I Like: A Book About Seasons Weather Calendar/Graph Weather Weather Patterns Spring Summer Fall Winter 	<ul style="list-style-type: none"> Weather The Weather Around Us Weather Cards
ESS.2.1.2 Use mathematics and computational thinking to summarize weather conditions (temperature, wind direction, wind speed, precipitation).	<ul style="list-style-type: none"> Songs: Seasons Books: That's What I Like: A Book About Seasons Weather Calendar/Graph Weather Weather Patterns Spring Summer Fall Winter 	<ul style="list-style-type: none"> Weather The Weather Around Us Weather Cards

North Carolina Standards	Waterford Digital Resources	Waterford Resources
ESS2.1 Understand patterns of weather and factors that affect weather <i>continued</i>.		
ESS.2.1.3 Carry out investigations to collect data and compare weather patterns that occur over time and relate observable patterns to time of day and time of year.	<ul style="list-style-type: none"> Songs: Precipitation; Storms Book: Whatever the Weather Weather Tools Calendar/Graph Weather 	<ul style="list-style-type: none"> Weather
ESS.2.1.4 Obtain, evaluate and communicate information to recognize the tools scientists use for observing, recording, and predicting weather changes from day to day and during the season.	<ul style="list-style-type: none"> Weather Calendar/Graph Weather Weather Patterns Spring Summer Fall Winter 	

Pre-Math and 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 / Fun 15 / 16 Ants / Counting to 17 / 18 Carrot Stew / 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

Marching Band Counting / Flower Counting / Country 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 Fish to Catch / Fun 15 / 16 Ants / Counting to 17 / 18 Carrot Stew / 19 On the Beach / 20 Fingers and Toes

Basic Math and Science

Math and Science Books

One More Cat / Can You Guess? A Story for Two Voices / 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 / Navajo Beads / Where in the World Would You Go Today? / I Want to Be a Scientist Like Wilbur and Orville Wright

Fluent Math and Science

Math and 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 X1 / 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.](#)

Research-Driven Development

Waterford is committed to ongoing development based on 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 [→family.waterford.org](https://family.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 / O: Polly, Put the Kettle On / P: This Little Pig / Q: Quack, Quack, Quack / R: Little Rabbit / S: Eensy, Weensy Spider / 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/UCqj0t00333333333333333333).

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 Family

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