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Aligned

Alignment

November 2025

**Waterford
Early Learning:
Math & Science**

**South Carolina K-2
College- and Career-
Ready Standards for
Mathematics 2025 &
Science 2021**

This document provides a detailed alignment of **Waterford Early Learning** to **South Carolina College- and Career-Ready Standards for Mathematics 2025 & Science 2021**.

Alignment Description

This document aligns South Carolina K-2 College- and Career-Ready Standards for Mathematics & Science 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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South Carolina Standards	Waterford Digital Activities	Waterford Resources
Mathematics		
Kindergarten		
Data, Probability, and Statistical Reasoning		
K.DPSR.1. Collect and organize data and communicate through multiple representations		
K.DPSR.1.1 Sort pictures or objects into at least two categories. Count to determine how many are in each category. Limit to 20 pictures or objects.	- Songs: Same and Different; All Sorts of Laundry - Books: Buttons, Buttons - Match - Sort - Make and Count Groups	Classifying Objects
K.DPSR.1.2 Answer questions about data organized in a t-chart, object graph, or picture graph.	- Songs: Graphing - Books: One More Cat - Picture Graphs - Calendar/Graph Weather	
Measurement, Geometry, and Spatial Reasoning		
K.MGSR.1. Describe and compare objects in real-world situations using units of length, weight, money, and time.		
K.MGSR.1.1 Identify a penny, nickel, dime, and quarter.	- 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	

South Carolina Standards	Waterford Digital Activities	Waterford Resources
K.MGSR.1. Describe and compare objects in real-world situations using units of length, weight, money, and time <i>continued</i>.		
K.MGSR.1.2 Directly compare two objects using words including shorter, longer, taller, lighter, and heavier.	- Songs: Savanna Size, Measuring Plants - Capacity - Length - Big and Little - Tall and Short - Heavy and Light	- Comparing Objects - Measurable Attributes
K.MGSR.2. Analyze, describe, and manipulate shapes to make sense of their relationships in mathematical and real-world situations.		
K.MGSR.2.1 Identify and describe the attributes of triangles, squares, rectangles, circles, cubes, and spheres to include everyday situations.	- Songs: Kites; Shapes, Shapes, Shapes; Up in the Air; Mar-mot Shapes - Books: The Shape of Things; Imagination Shapes - Circle, Square, Triangle, Rectangle - Star, Semicircle, Octagon, Oval, Rhombus - Simple Shapes - Solid Shapes - World Shapes	Shape Recognition
K.MGSR.2.2 Describe relative positions of objects by appropriately using terms including below, above, beside, between, inside, outside, in front of, or behind	- 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	Describing Objects

South Carolina Standards	Waterford Digital Activities	Waterford Resources
Numerical Reasoning		
K.NR.1. Represent multi-digit numbers in a variety of ways to build the foundation for place value understanding.		
K.NR.1.1 Read, write, and represent the numerals 0 to 20 and represent the written numeral with concrete models.	• Math Books • Counting Songs • Number Songs (See titles at end of document.) • Number Counting • Number Instruction • One-to-One Correspondence	• Write Numbers 0-20 • Object Counting Basics
K.NR.1.2 Compose and decompose numbers from 11 to 19 into tens and ones by using concrete objects, pictorial models, or drawings to demonstrate understanding that the teen numbers are composed of one set of ten ones and a few more ones.	• Place Value	• Tens and Ones
K.NR.2. Demonstrate and explain the relationship between numbers and quantities.		
K.NR.2.1 Count forward by ones and tens to 100 and backward from 10 by ones.	• Songs: Counting Back • Books: A Space Adventure • Number Songs • Counting Songs (See titles at end of document.) • Number Counting • Number Instruction • Count On • Count Back • Counting Puzzle • Dot-to-Dot	• Count to 100 by Ones and Tens • Count Forward • Count Back

South Carolina Standards	Waterford Digital Activities	Waterford Resources
K.NR.2. Demonstrate and explain the relationship between numbers and quantities <i>continued</i>.		
K.NR.2.2 Subitize a quantity of up to 10 objects in an organized arrangement without counting, explaining how one grouped the objects within the set to determine the total quantity.	• Moving Target (Dots) • Bug Bits • Match Numbers	
K.NR.2.3 Given a group of up to 20 objects, count the number of objects in that group and represent the number of objects with a written numeral. State the number of objects in a rearrangement of that group without recounting.	• Make and Count Groups • Number Counting • Number Instruction • Match Numbers • One-to-One Correspondence	• Object Counting Grouping
K.NR.2.4 Given a number from 0 to 20, count out that many objects.	• One-to-One Correspondence • Number Counting	
K.NR.3. Demonstrate the ability to compare quantities of objects and numerals representing quantities of objects.		
K.NR.3.1 Compare up to 10 objects in one set to another set of up to 10 objects using the phrases more than, fewer than, or the same as.	• 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	• Greater, Less, or Equal

South Carolina Standards	Waterford Digital Activities	Waterford Resources
Patterns, Algebra, and Functional Reasoning		
K.PAFR.1. Develop an understanding of the relationship between addition and subtraction to solve problems.		
K.PAFR.1.1 Add and subtract number combinations within 5.	- 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	Decompose Numbers
K.PAFR.1.2 Create a sum of 10 using objects and drawings when given one of two addends 0–9, to include real-world situations.	- Make 10 - Missing Addends - Count On - Act Out Addition	Numbers That Make 10
K.PAFR.1.3 Compose and decompose numbers up to 10 in different ways. Record using objects or drawings.	- 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	- Numbers That Make 10 - Decompose Numbers

South Carolina Standards	Waterford Digital Activities	Waterford Resources
K.PAFR.1. Develop an understanding of the relationship between addition and subtraction to solve problems <i>continued</i>.		
K.PAFR.1.4 Solve add-to/joining, take-from/separating part-part-whole (total unknown), part-part-whole (both addends unknown) real-world situations to find sums and differences within 10.	- 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	Addition and Subtraction Word Problem
K.PAFR.2. Recognize, describe, extend, and create patterns.		
K.PAFR.2.1 Describe, extend, and create (to the next term) simple repeating patterns in the form of AB, AAB, ABB, and ABC.	- Songs: Train Station Patterns - Patterns - Pattern: AB - Pattern ABB - Pattern ABC	Patterns
First Grade Math Standards		
Data, Probability, and Statistical Reasoning		
1.DPSR.1. Create and answer survey questions, collect and analyze data, and communicate through multiple representations.		
1.DPSR.1.1 Sort pictures or objects into at least three categories (not to exceed 10 items in each category).	- Songs: Same and Different; All Sorts of Laundry - Books: Buttons, Buttons - Match - Sort - Make and Count Groups	Classifying Objects

South Carolina Standards	Waterford Digital Activities	Waterford Resources
1.DPSR.1. Create and answer survey questions, collect and analyze data, and communicate through multiple representations <i>continued</i>.		
1.DPSR.1.2 Create a survey question and collect data with up to three categories. Create charts and graphs with a single unit scale to display the data. Use the graph to draw conclusions. Limit to one-step add-to, take-from, and part-part-whole questions.	- Songs: Tallying; Graphing - Books: One More Cat; Painting by Number; The Booneville Nine - Picture Graphs - Bar Graphs - Tally Marks - Graphs - Make a Table	- Data Categorization - Who Likes?
Measurement, Geometry, and Spatial Reasoning		
1.MGSR.1. Describe, estimate, measure, and compare objects in real-world situations using units of length, weight, money, and time.		
1.MGSR.1.1 Order three objects by length from shortest to longest and longest to shortest using direct comparison	- Length - Nonstandard Units of Length	Order By Length
1.MGSR.1.2 Use nonstandard physical objects to estimate and then measure the length of an item as the number of same size units of length with no gaps or overlaps.	- Length - Nonstandard Units of Length	Length Measurement
1.MGSR.1.3 Use analog and digital clocks to tell and record time to the hour and half hour.	- Songs: Clock Hands - Books: Mr. Romano's Secret: A Time Story - Tell Time to the Hour - Tell Time to the Half-Hour	Hours and Half-Hours

South Carolina Standards	Waterford Digital Activities	Waterford Resources
1.MGSR.1. Describe, estimate, measure, and compare objects in real-world situations using units of length, weight, money, and time <i>continued</i>.		
1.MGSR.1.4 Identify and write the values of a coin or a bill using a ¢ symbol for coin values or \$ symbol for bills. Limit to penny, nickel, dime, quarter, one-dollar bill, five-dollar bill, and ten-dollar bill.	- 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	Coin Identification and Value
1.MGSR.1.5 Count a collection of like coins to determine the total value of the set. Limit to pennies, nickels, and dimes with values not to exceed a dollar.	- Count Dimes, Nickels, and Pennies - Count Quarters, Dimes, Nickels, and Pennies - Count Nickels and Pennies or Dimes and Pennies - Count Coins	
1.MGSR.2. Analyze, describe, and manipulate shapes to make sense of their relationships in mathematical and real-world situations.		
1.MGSR.2.1 Sort a mixed set of polygons and describe the reasoning used while sorting the polygons.	Sort	Classifying Objects
1.MGSR.2.2 Identify and describe the attributes of two dimensional shapes and three dimensional shapes. Limit to triangle, square, rectangle, rhombus, hexagon, circle, cone, cube, cylinder, square, pyramid, and sphere.	- Songs: Corners and Sides; Kites - Geoboard - Space Shapes	Attributes

South Carolina Standards	Waterford Digital Activities	Waterford Resources
1.MGSR.2. Analyze, describe, and manipulate shapes to make sense of their relationships in mathematical and real-world situations <i>continued</i>.		
1.MGSR.2.3 Identify and describe a given shape in everyday situations to include two dimensional shapes and three dimensional shapes. Limit to triangle, square, rectangle, rhombus, hexagon, circle, cone, cube, cylinder, square pyramid, and sphere.	- Songs: Kites; Shapes, Shapes, Shapes - Books: The Shape of Things; Imagination Shapes - Circle, Square, Triangle, Rectangle - Star, Semicircle, Octagon, Oval, Rhombus - Simple Shapes - Solid Shapes - Space Shapes - World Shapes	Shape Recognition
1.MGSR.2.4 Classify shapes as two-dimensional/flat or three-dimensional/solid and explain the reasoning using formal mathematical language. Limit to triangle, square, rectangle, rhombus, hexagon, circle, cone, cube, cylinder, square pyramid, and sphere.	- Songs: Kites; Shapes, Shapes, Shapes - Books: The Shape of Things; Imagination Shapes - Circle, Square, Triangle, Rectangle - Star, Semicircle, Octagon, Oval, Rhombus - Solid Shapes - Space Shapes - World Shapes	Attributes
1.MGSR.2.5 Analyze and compare a pair of two dimensional shapes or a pair of three dimensional shapes of assorted sizes and orientations using formal mathematical language. Limit to triangle, square, rectangle, rhombus, hexagon, circle, cone, cube, cylinder, square pyramid, and sphere.	- Songs: Kites - Space Shapes - Geoboard - Tangrams	
Numerical Reasoning		
1.NR.1. Represent multi-digit numbers in a variety of ways to build place value understanding.		
1.NR.1.1 Read, write, and represent numbers to 100 using concrete models, drawings, standard form, base ten language, and equations in expanded form.	- Math Books - Number Instruction - Count On - Place Value - Expanded Notation	Count to 120

South Carolina Standards	Waterford Digital Activities	Waterford Resources
1.NR.1. Represent multi-digit numbers in a variety of ways to build place value understanding <i>continued</i>.		
1.NR.1.2 Represent and explain that whole numbers 1 through 99 are organized into groups of tens and ones, and a digit has a different value depending on its placement.	- Songs: Place Value - Place Value of 2-digit Numbers	Compare Two-Digit Numbers
1.NR.1.3 Compose and decompose whole numbers from 1 through 99 in more than one way using tens and ones. Explain and demonstrate each composition or decomposition with the use of concrete models, drawings, and/or equations.	- Songs: Place Value - Place Value of 2-digit Numbers - Expanded Notation	Decompose Numbers
1.NR.1.4 Apply place value reasoning to identify the number that is one more and one less, ten more, and ten less than a given number with up to two digits.	- Songs: Place Value - Place Value of 2-digit Numbers - Expanded Notation	Compare Two-Digit Numbers
1.NR.2. Explain the relationship between numbers and quantities.		
1.NR.2.1 Count by ones forward or backward starting at any number up to 120 making accurate decade transitions.	- Songs: Counting On - Count On - Number Chart	Count to 120
1.NR.2.2 Skip count by fives and tens from any multiple of five to 100, identifying place value patterns in the sequence.	- Songs: Skip Counting - Books: Jump Rope Rhymes; Navajo Beads - Skip Count by 5 - Skip Count by 10	

South Carolina Standards	Waterford Digital Activities	Waterford Resources
1.NR.3. Demonstrate the ability to compare quantities of objects and numerals representing quantities of objects.		
1.NR.3.1 Compare representations of two numbers up to 100 using the phrases is greater than, is less than, or is equal to (the same value as).	- Place Value - Greater Than, Less Than (2-digit Numbers)	Compare Two-Digit Numbers
1.NR.4. Represent partitioned shapes in multiple ways using part-whole relationships.		
1.NR.4.1 Partition in multiple ways squares, rectangles, and circles into two or four equal-sized parts. Name the pieces as halves and fourths.	- Songs: Fractions - Books: Half for You and Half for Me; Halves and Fourths and Thirds - Equal-part Fractions - Label Parts of Fractions	Equal Shares
1.PAFR.1. Understand and apply properties of operations and the relationship between addition and subtraction to solve problems.		
1.PAFR.1.1 Determine and explain if an equation within 10 is true using a variety of equation formats.	- 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	Equal Sign

South Carolina Standards	Waterford Digital Activities	Waterford Resources
1.PAFR.1. Understand and apply properties of operations and the relationship between addition and subtraction to solve problems <i>continued</i>.		
1.PAFR.1.2 Compose and decompose numbers less than or equal to 20 in more than one way. Record each composition or decomposition as an equation.	- Songs: Fact Families; Counting On - Books: Facts about Families - Addition and Subtraction Fact Families - Addition Sentences - Subtraction Sentences - Commutative Property of Addition - Addition and Subtraction Relationship - Missing Addends - Missing Minuends and Subtrahends - Add 3 One-digit Numbers - Subtraction Patterns	Add and Subtract Within 20
1.PAFR.1.3 Solve add-to, take-from, and part-part-whole real-world situations to find sums and differences within 20. Situations include result or change unknown, both addends unknown, and total or one part unknown.	- Songs: Addition; On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction; Fact Families; Doubles - Books: Five Delicious Muffins; Facts About Families - Addition and Subtraction Fact Families - Addition and Subtraction Relationship - Doubles - Subtract Doubles	Word Problems Using Subtraction Within 20
1.PAFR.1.4 Add and subtract number combinations flexibly and accurately within 10.	- Addition and Subtraction Fact Families - Addition Sentences - Subtraction Sentences	Strategies to Add and Subtract
1.PAFR.1.5 Apply and explain the Commutative Property of Addition to find the sum (through 20) of two addends and explain that the value does not change when the order of the two numbers changes.	- Addition and Subtraction Relationship - Addition and Subtraction Fact Families - Subtraction Patterns - Commutative Property of Addition	Strategies to Add and Subtract

South Carolina Standards	Waterford Digital Activities	Waterford Resources
1.PAFR.1. Understand and apply properties of operations and the relationship between addition and subtraction to solve problems <i>continued</i>.		
1.PAFR.1.6 Determine an unknown number in addition and subtraction equations within 10.	- Addition - Subtraction - Missing Addends and Subtrahends - Subtraction Sentences - Addition and Subtraction Facts	Understand Subtraction as an Unknown Addend Problem
1.PAFR.1.7 Find the sum of a two-digit number and a one-digit number or a two-digit number and a multiple of 10 (1–99) using concrete models, drawings, and strategies that reflect place value understanding, the inverse relationship of addition and subtraction, and the properties of the operations to justify the sum.	- Place Value of 2-digit Numbers - Addition and Subtraction Relationship - Add with Regrouping Concept - Add 2-digit and 1-digit Numbers with Regrouping	Adding Within 100
1.PAFR.1.8 Find the difference between two numbers that are multiples of 10, both in the range 10–90, and write the corresponding equation. Explain the reasoning used.	- Subtraction - Subtraction Sentences - Subtract Tens - Subtraction Patterns - Subtract - Place Value - Use Manipulatives	Subtracting in 10s
1.PAFR.2. Recognize, describe, extend, and create patterns.		
1.PAFR.2.1 Create, describe, and extend (to the next term) a growing shape pattern.	- Songs: Train Station Patterns - Patterns - Pattern: AB; ABB; ABC	Patterns
1.PAFR.2.2 Create, describe, and extend (to three terms within a sequence) repeating patterns using AB, AAB, ABB, and ABC type patterns.	- Patterns - Pattern: AB; ABB; ABC	Patterns

South Carolina Standards	Waterford Digital Activities	Waterford Resources
Second Grade Math Standards		
Data, Probability, and Statistical Reasoning		
2.DPSR.1. Create and answer survey questions, collect and analyze data, and communicate through multiple representations.		
2.DPSR.1.1 Create a survey question and collect data with up to four categories. Create tally charts, picture graphs, dot plots, and bar graphs with a single-unit scale to read the graph, answer questions, and draw conclusions. Limit to one-step add-to, take-from, part-part-whole, and comparison questions.	- Songs: Graphing - Graphing - Bar Graphs - Picture Graphs - Use Graphs and Tables	Graphs
Measurement, Geometry, and Spatial Reasoning		
2.MGSR.1. Describe, estimate, measure, and compare objects in real-world situations using units of length, weight, currency, and time.		
2.MGSR.1.1 Select and use appropriate tools to estimate and measure length of an object or distance to the nearest customary unit. Limit to inches, feet, and yards.	- Songs: Measuring Plants - Books: Birds at My House - Length - Measurement Tools - Standard Units of Length - Length - Standard Units of Length - Measurement Tools	Measurement Tools
2.MGSR.1.2 Use analog and digital clocks to tell and record time in five-minute intervals, identifying AM and PM.	- 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	Tell and Write Time

South Carolina Standards	Waterford Digital Activities	Waterford Resources
2.MGSR.1. Describe, estimate, measure, and compare objects in real-world situations using units of length, weight, currency, and time <i>continued</i>.		
2.MGSR.1.3 Determine the value of mixed sets of coins or bills in mathematical and real world situations and record the value using a ¢ or \$ symbol. Limit to pennies, nickels, dimes, and quarters up to a dollar; one-dollar bills, five-dollar bills, ten dollar bills, and twenty-dollar bills up to \$100, and add-to or take from problem types.	- 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 - Make Change - Count Coins - Count Bills and Coins - Equivalent Sums of Money	Solve Money Word Problems
2.MGSR.2. Analyze, describe, and manipulate shapes to make sense of their relationships in mathematical and real-world situations.		
2.MGSR.2.1 Identify and describe a given shape in everyday situations to include two dimensional shapes and three dimensional shapes. Limit to triangle, quadrilateral, pentagon, hexagon, octagon, circle, cone, cube, cylinder, rectangular prism, square pyramid, and sphere.	- Songs: Shapes, Shapes, Shapes; Corners and Sides; Kites - Books: The Shape of Things - Space Shapes - World Shapes - Geoboard	- Shape Recognition - Draw Shapes
2.MGSR.2.2 Classify shapes as polygons or nonpolygons and defend that determination based on their attributes.	- Songs: Shapes, Shapes, Shapes; Corners and Sides; Kites - Books: The Shape of Things - Space Shapes - World Shapes - Geoboard	
2.MGSR.2.3 Classify two dimensional shapes as triangles or quadrilaterals and justify each classification.		Attributes

South Carolina Standards	Waterford Digital Activities	Waterford Resources
Numerical Reasoning		
2.NR.1. Represent multi-digit numbers in a variety of ways to build place value understanding		
2.NR.1.1 Read, write, and represent numbers up to 999 using concrete models, drawings, standard form, base ten language, and equations in expanded form.	- Sequences of 2-digit Numbers - Sequences of 3-digit Numbers - Number Chart - Place Value	Read and Write Numbers to 120
2.NR.1.2 Represent and explain that whole numbers 1 through 999 are organized into groups of hundreds, tens, and ones, and a digit has a different value depending on its placement.	- Songs: Place Value - Place Value - Place Value of 3-digit Numbers - Expanded Notation	- Thinking of 100 as a Bundle of Ten 10s - Grouping Hundreds
2.NR.1.3 Compose and decompose whole numbers from 1 through 999 in more than one way using hundreds, tens, and ones. Explain and demonstrate each composition or decomposition with the use of concrete models, drawings, and equations.	- 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 - Expanded Notation	Add and Subtract Within 1000
2.NR.1.4 Apply place value reasoning to identify the number that is 10 more, 10 less, 100 more, and 100 less than a given three digit number through 999.	- Skip Count - Place Value - Number Chart - Number Patterns	Mentally Adding or Subtracting 10 or 100

South Carolina Standards	Waterford Digital Activities	Waterford Resources
2.NR.2. Explain the relationship between numbers and quantities.		
2.NR.2.1 Count forward and backward by ones, tens, and hundreds from any number within 999 and identify patterns in the sequence.	- Songs: Skip Counting - Books: Jump Rope Rhymes - Skip Count - Skip Count by 10 - Skip Count by 5 - Number Sequences and Patterns	Counting Within 1000
2.NR.3. Demonstrate the ability to compare quantities of objects and numerals representing quantities of objects.		
2.NR.3.1 Compare representations of whole numbers up to 999 and write a comparison statement using words and symbols. Limit to is equal to ($=$), is less than ($<$), and/or is greater than ($>$).	- Greater Than, Less Than (3-digit Numbers) - Place Value of 3-digit Numbers	Less Than, Equal To, or Greater Than
2.NR.3.2 When given a two-digit number, identify which multiple of 10 the number is closest to.	- Add Two-digit Numbers with Regrouping - Add without Regrouping - Add with Regrouping	
2.NR.4. Represent and compare partitioned shapes in multiple ways using part-whole relationships.		
2.NR.4.1 Partition in multiple ways squares, rectangles, and circles into two or four equal sized parts, and describe the parts using the words halves, fourths, a half of, and a fourth of (not quarters).	- Songs: Fractions - Books: Halves and Fourths and Thirds; The Fraction Twins - Fractions - Label Parts of Fractions - Fractions of Regions - Fractions of Groups	Fractions
2.NR.4.2 Explain that when partitioning a square, rectangle, or circle into two or four equal parts, the parts become smaller as the number of parts increases.	- Fractions - Label Parts of Fractions - Fractions of Regions - Fractions of Groups	Fractions

South Carolina Standards	Waterford Digital Activities	Waterford Resources
Patterns, Algebra, and Functional Reasoning		
2.PAFR.1. Understand and apply properties of operations and the relationship between addition and subtraction to solve problems.		
2.PAFR.1.1 Use a strategy to accurately find sums and differences of two-digit numbers within 100 and justify the sum or difference.	- Place Value - Addition and Subtraction Relationship - Commutative Properties of Addition - Addition - Subtraction - Add without Regrouping - Add with Regrouping - Subtract without regrouping - Subtract with Regrouping	Add and Subtract Within 100
2.PAFR.1.2 Determine and explain if an equation (within 20) is true using a variety of equation formats.		Explaining Addition and Subtraction Strategies
2.PAFR.1.3 Solve one-step add-to, take-from, part-part-whole, and additive comparison real world situations through 99 with the unknown in any position. Students may use concrete models,	- Books: Painting by Number - Addition - Subtraction - Missing Addends and Subtrahends - Subtraction Sentences - Addition and Subtraction Facts	One- and Two-Step Word Problems Within 100
2.PAFR.1.4 For any number from 0 to 99, find the number that makes 100 when added to the given number.	- Place Value - Number Line	Add and Subtract Within 100
2.PAFR.1.5 Add and subtract number combinations flexibly and accurately within 20.	- Songs: Fact Families; Doubles - Subtraction Patterns - Addition Facts to 20	

South Carolina Standards	Waterford Digital Activities	Waterford Resources
2.PAFR.1. Understand and apply properties of operations and the relationship between addition and subtraction to solve problems <i>continued</i>.		
2.PAFR.1.6 Apply the Associative Property of Addition to find the sum (through 20) of three addends and explain that the value can be found using various grouping strategies.	- Addition and Subtraction Relationship - Addition and Subtraction Fact Families - Subtraction Patterns - Commutative Property of Addition	Strategies to Add and Subtract
2.PAFR.1.7 Determine the unknown number in addition and subtraction equations within 20, with the unknown in any position.	- Books: Painting by Number - Addition - Subtraction - Missing Addends and Subtrahends - Subtraction Sentences - Addition and Subtraction Facts	
2.PAFR.1.8 Sort a collection of 20 or fewer objects into two groups to determine if the number of objects is even or odd.	- Songs: Odd Todd and Even Steven - Skip Count by 2 - Addition Facts	
2.PAFR.1.9 Find the total number of objects arranged in equal groups or in a rectangular array and write an addition equation to express the total as a sum (up to 25) of equal addends.	- Addition - Multiply Using Repeated Addition - Multiply Using Arrays	
2.PAFR.2. Recognize, describe, extend, and create patterns.		
2.PAFR.2.1 Describe, extend, and create a growing shape pattern with up to three terms within a sequence.	Patterns	- Patterns - Attributes
2.PAFR.2.2 Create, describe, and extend an appropriate one-step rule for number patterns using addition and subtraction within 100.	- Subtraction Patterns - Addition Patterns - Number Patterns	

South Carolina Standards	Waterford Digital Activities	Waterford Resources
Science		
Kindergarten		
Motion and Stability: Forces and Interactions (PS2)		
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.	- Songs: Push and Pull - Books: Mr. Mario's Neighborhood - Push and Pull	How It Works
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.	- Songs: Push and Pull - Push and Pull	
Energy (PS3)		
K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface.	- 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.	
Molecules to Organisms: Structures and Processes (LS1)		
K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.	- 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	- Water for Plants - Green and Growing

South Carolina Standards	Waterford Digital Activities	Waterford Resources
Earth's Systems (ESS2)		
K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.	- Songs: Seasons - Books: That's What I Like: A Book About Seasons - Weather - Calendar/Graph Weather - Weather Patterns - Clouds - Spring - Summer - Fall - Winter	- Weather - The Weather Around Us - Weather Cards
K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.	Books: Winter Snoozers; Birds at my House; The Old Maple Tree; Turtle's Pond	
Earth and Human Activity (ESS3)		
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.	- Songs: Four Ecosystems - Books: Where in the World Would You Go Today? - Oceans - Mountains - Deserts - Rainforests	Our Earth
K-ESS3-2. Ask questions to understand the purpose of weather forecasting to prepare for, and respond to, severe weather.	- Songs: Precipitation; Storms - Books: Whatever the Weather - Weather Tools - Calendar/Graph Weather	
K-ESS3-3. Obtain and communicate information to define problems related to human impact on the local environment.	- Songs: Conservation; Pollution Rap - Pollution and Recycling - Care of Water - Care of Earth	- Recycling - Our Earth

South Carolina Standards	Waterford Digital Activities	Waterford Resources
Grade 1		
Waves and their Applications in Technologies for Information Transfer (PS4)		
1-PS4-1. Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.	- Songs: Sound - Books: What Sounds Say - Sound Waves	Sound
1-PS4-2. Make observations to support an evidence-based claim that objects in darkness can be seen only when illuminated by light sources.	- Books: My Family Campout; Lightning Bugs - Light Properties - Properties of Light	
1-PS4-3. Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light.	- Books: My Family Campout - Light Properties - 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.	- Songs: Inventing - Books: I Want to Be a Scientist Like Thomas Edison; Inventions All Around	
From Molecules to Organisms: Structures and Processes (LS1)		
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.	- Books: I Wish I Had Ears Like a Bat; Animal Bodies; Fawn Eyes - Deserts	
1-LS1-2. Obtain information from multiple sources to determine patterns in parent and offspring behavior that help offspring survive.	- Songs: Animal Bodies - Animal Behavior - Animal Bodies	

South Carolina Standards	Waterford Digital Activities	Waterford Resources
Heredity: Inheritance and Variation of Traits (LS3)		
1-LS3-1. Make observations to support an evidence-based claim that most young are like, but not exactly like, their parents.	- Books: George and Jack; A Seed Grows - Build Knowledge:	Traits
Earth's Place in the Universe (ESS1)		
1-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted.	- Songs: The Moon; Sun Blues - Books: Moon Song; Star Pictures; My Family Campout - Sun - Moon - Constellations	- The Moon - The Sky Above Us
1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.	- Sun - Spring - Summer - Fall - Winter	
Grade 2		
Matter and Its Interactions (PS1)		
2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.	- Books: Warm Soup for Dedushka - Changes in Matter - Movement of Heat - States of Water - Materials	
2-PS1-2. Analyze data obtained from tests to determine which materials have the best properties for an intended purpose.	- Books: Warm Soup for Dedushka - Heat Movement - Movement of Heat - Heat Experiment	

South Carolina Standards	Waterford Digital Activities	Waterford Resources
Matter and Its Interactions (PS1) <i>continued</i>		
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.	- 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.	- Books: Warm Soup for Dedushka; Pancakes Matter - Changes in Matter - Movement of Heat	
Ecosystems: Interactions, Energy, and Dynamics (LS2)		
2-LS2-1. Plan and conduct an investigation to determine what plants need to grow.	- Songs: Plants Are Growing - Sun - Water - Plant Experiment - Healthy Plants' Needs	Light for Plants
2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.	Books: The Bee's Secret; The Old Maple Tree	
Biological Evolution: Unity and Diversity (LS4)		
2-LS4-1. Make observations of plants and animals to compare patterns of diversity within different habitats.	- Songs: Animal Bodies; Four Ecosystems - Books: Animal Bodies; Where in the World Would You Go Today? - Ecosystems - Animal Bodies - Animal Behavior	Places on Earth

South Carolina Standards	Waterford Digital Activities	Waterford Resources
Earth's Place in the Universe (ESS1)		
2-ESS1-1. Use information from several sources to provide evidence that Earth events can occur rapidly or slowly.	- 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	Rocks
Earth's Systems (ESS2)		
2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.	Rock Cycle	
2-ESS2-2. Develop a model to represent the shapes and kinds of land and bodies of water in an area.	- Songs: Water; Precipitation; Water Is All Around - Water Sources - Water - Water Cycle - Care of Water - Oceans	
2-ESS2-3. Obtain information to identify where water is found on Earth and that it can be solid or liquid.	- Songs: Water; Uses of Water; Precipitation; Water Is All Around - Water Sources - Water - Water Cycle - Care of Water - States of Water - Heat Changes Water	

South Carolina Standards	Waterford Digital Activities	Waterford Resources
Earth and Human Activity (ESS3)		
2-ESS3-1. Design solutions to address human impacts on natural resources in the local environment.	• Songs: Conservation; Pollution Rap • Pollution and Recycling • Care of Water • Care of Earth	• Recycling • Our Earth

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://Waterford.org/YouTube/channel).

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 Waterford Family app (for iOS and Android).