

100%
Correlation

Curriculum Correlation July 2025

**Waterford
Early Learning:
Math & Science**

**Utah Core State
Standards for
Mathematics 2016;
Science with
Engineering Education
(SEEd) 2023**

This document provides a detailed correlation of **Waterford Early Learning** to **Utah's Core State Standards for Math and Science**.

Correlation Description

This document aligns Utah's Core State Standards for Math and 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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Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Mathematics		
Kindergarten		
Counting and Cardinality (K.CC)		
Know number names and the counting sequence.		
K.CC.1 Count to 100 by ones and by tens.	<ul style="list-style-type: none"> Counting Songs (See titles at end of document.) Number Instruction Number Counting Skip Counting 	<ul style="list-style-type: none"> Count to 100 by Ones and Tens
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"> Counting Songs (See titles at end of document.) Count On Counting Puzzle Dot-to-Dot 	<ul style="list-style-type: none"> Count Forward
K.CC.3 Read and write numbers using base ten numerals from 0 to 20. Represent a number of objects with a written numeral, in or out of sequence (0 represents a count of no objects).	<ul style="list-style-type: none"> Number Counting Number Tracing Number Instruction Make and Count Groups 	<ul style="list-style-type: none"> Write Numbers 0 to 20
Count to tell the number of objects.		
K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.	<ul style="list-style-type: none"> Counting Songs (See titles at end of document.) Make and Count Group Number Counting Number Instruction One-to-one Correspondence 	<ul style="list-style-type: none"> Object Counting Basics

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Count to tell the number of objects <i>continued</i>.		
K.CC.4a When counting objects, say the numbers in the standard order. Pair each quantity of objects with one and only one number, and each number with the correct quantity of objects.	<ul style="list-style-type: none"> Counting Songs (See titles at end of document.) Number Counting Number Instruction Numbers Review One-to-one Correspondence 	Object Counting Basics
K.CC.4b Understand that the last number said represents the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.	<ul style="list-style-type: none"> Make and Count Groups Number Counting Number Instruction One-to-one Correspondence 	<ul style="list-style-type: none"> Object Counting Grouping
K.CC.4c Understand that each successive number refers to a quantity that is one greater than the previous number.	<ul style="list-style-type: none"> Make and Count Groups Number Counting One-to-one Correspondence 	<ul style="list-style-type: none"> Object Counting Succession
K.CC.5 Use counting to answer questions about “how many.” For example, 20 or fewer objects arranged in a line, a rectangular array, or circle; 10 or fewer objects in a scattered configuration. Using a number from 1–20, count out that many objects.	<ul style="list-style-type: none"> Make and Count Groups Number Counting Number Instruction One-to-one Correspondence 	<ul style="list-style-type: none"> How Many?
Identify and compare quantities of objects and numerals.		
K.CC.6 Use matching or counting strategies to identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. Include groups with up to ten objects.	<ul style="list-style-type: none"> Song: Greater Than, Less Than Book: For the Birds Greater Than, Less Than More Than, Fewer Than More Than Fewer Than 	<ul style="list-style-type: none"> Greater, Less, Or Equal
K.CC.7 Compare two numbers between 1 and 10 presented as written numerals using “greater than,” “less than,” or “equal to.”	<ul style="list-style-type: none"> Song: Greater Than, Less Than Book: For the Birds Greater Than, Less Than More Than, Fewer Than More Than Fewer Than 	<ul style="list-style-type: none"> Comparing Two Numbers

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Operations and Algebraic Thinking (K.OA)		
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.		
K.OA.1 Represent addition and subtraction with objects, fingers, mental images, simple drawings, or sounds. For example, use clapping, act out situations, and use verbal explanations, expressions, or equations.	<ul style="list-style-type: none"> Songs: On the Bayou; Bakery Subtraction; Circus Subtraction; Subtract Those Cars Book: Five Delicious Muffins Add Groups Subtract Groups Act Out Addition Act Out Subtraction 	<ul style="list-style-type: none"> Represent Addition and Subtraction with Objects
K.OA.2 Solve addition and subtraction word problems within 10. Use objects or drawings to represent the problem.	<ul style="list-style-type: none"> Songs: On the Bayou; Bakery Subtraction; Circus Subtraction; Subtract Those Cars Book: Five Delicious Muffins Add Groups Subtract Groups Act Out Addition Act Out Subtraction 	<ul style="list-style-type: none"> Addition and Subtraction Word Problems
K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way by using objects or drawings. Record each decomposition by a drawing or equation. For example, $5 = 2 + 3$ and $5 = 4 + 1$.	<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
K.OA.4 Make sums of 10 using any number from 1 to 9. For example, $2 + 8 = 10$. Use objects or drawings to represent and record the answer.	<ul style="list-style-type: none"> Make 10 Missing Addends Count On Act Out Addition 	<ul style="list-style-type: none"> Numbers that Make 10
K.OA.5 Fluently add and subtract using numbers within 5.	<ul style="list-style-type: none"> Songs: On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction Book: Five Delicious Muffins Add Groups Subtract Groups Minuends Sums Act Out Addition Act Out Subtraction 	

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Number and Operations in Base Ten (K.NBT)		
Compose and decompose numbers 11-19 to gain foundations for place value.		
K.NBT.1 Compose and decompose numbers from 11–19 into ten ones and some further ones. Use objects or drawings and record each composition or decomposition by a drawing or equation. For example, $18 = 10 + 8$. Understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	<ul style="list-style-type: none"> Place Value 	<ul style="list-style-type: none"> Tens and Ones
Measurement and Data (K.MD)		
Describe and compare measurable attributes of objects.		
K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	<ul style="list-style-type: none"> Song: Measuring Plants Length 	<ul style="list-style-type: none"> Measurable Attributes
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. For example, directly compare the length of two pencils and describe one as shorter or longer.	<ul style="list-style-type: none"> Songs: Savanna Size; Measuring Plants Capacity Length Big and Little Tall and Short Heavy and Light Size 	<ul style="list-style-type: none"> Comparing Objects
Classify objects and count the number of objects in each category.		
K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. Limit the category counts to less than or equal to 10.	<ul style="list-style-type: none"> Songs: Same and Different; All Sorts of Laundry Book: Buttons, Buttons Sort Make and Count Groups 	<ul style="list-style-type: none"> Classifying Objects

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Geometry (K.G)		
Identify and describe shapes, including squares, circles, triangles, rectangles hexagons, cubes, cones, cylinders, and spheres.		
K.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.	<ul style="list-style-type: none"> Songs: Position Cat; Kites; Get Over the Bugs; Shapes, Shapes, Shapes Books: The Shape of Things; Imagination Shapes; Up in the Air Over, Under, Above, Below Inside, Outside, Between Circle, Square, Triangle, Rectangle Star, Semicircle, Octagon, Oval, Rhombus Solid Shapes World Shapes Above, Below, Next to, On 	<ul style="list-style-type: none"> Describing Objects
K.G.2 Correctly name shapes regardless of their orientations or overall sizes.	<ul style="list-style-type: none"> Songs: Kites; Shapes, Shapes, Shapes; Corners and Sides Books: The Shape of Things; Imagination Shapes; Circle, Square, Triangle, Rectangle Inside, Outside, Between Circle, Square, Triangle, Rectangle Star, Semicircle, Octagon, Oval, Rhombus Solid Shapes World Shapes Simple Shapes 	<ul style="list-style-type: none"> Shape Recognition
K.G.3 Identify shapes as two-dimensional ("flat") or three-dimensional ("solid").	<ul style="list-style-type: none"> Simple Shapes Solid Shapes Space Shapes 	<ul style="list-style-type: none"> Two-dimensional Shapes

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Analyze, compare, create, and compose shapes.		
K.G.4 Analyze, compare, and sort two- and three-dimensional shapes and objects, in different sizes and orientations, using informal language to describe their similarities, differences, and other attributes (for example, color, size, shape, number of sides).	<ul style="list-style-type: none"> Song: Corners and Sides Simple Shapes Space Shapes Similar Figures 	<ul style="list-style-type: none"> Compare Shapes
K.G.5 Model and create shapes from components such as sticks and clay balls.	<ul style="list-style-type: none"> Geoboard 	<ul style="list-style-type: none"> Model Shapes
K.G.6 Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"	<ul style="list-style-type: none"> Geoboard 	<ul style="list-style-type: none"> Form Larger Shapes
Grade 1		
Operations and Algebraic Thinking (1.OA)		
Represent and solve problems involving addition and subtraction within 20		
1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. For example, use objects, drawings, and equations with a symbol for the unknown number to represent the problem.	<ul style="list-style-type: none"> Songs: Fact Families; Doubles Book: Facts About Families Addition and Subtraction Fact Families Addition and Subtraction Relationship 	<ul style="list-style-type: none"> Word Problems Using Subtraction Within 20
1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20. For example, use objects, drawings, and equations with a symbol for the unknown number to represent the problem.	<ul style="list-style-type: none"> Add 3 One-digit Numbers 	<ul style="list-style-type: none"> Word Problems Adding 3 Numbers

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Understand and apply properties of operations and the relationship between addition and subtraction.		
Apply properties of operations as strategies to add and subtract. For example: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.) First grade students need not use formal terms for these properties.	<ul style="list-style-type: none"> Addition and Subtraction Relationship Addition and Subtraction Fact Families Subtraction Patterns Commutative Property of Addition 	<ul style="list-style-type: none"> Strategies to Add and Subtract
1.OA.4 Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.	<ul style="list-style-type: none"> Missing Addends Addition and Subtraction Fact Families Subtraction Patterns 	<ul style="list-style-type: none"> Understand Subtraction as an Unknown Addend Problem
Represent and solve problems involving addition and subtraction within 20		
1.OA.5 Relate counting to addition and subtraction. For example, by counting on 2 to add 2.	<ul style="list-style-type: none"> Song: Counting On Books: Circus 20, Painting by Number Skip Count by 2 Count On 	<ul style="list-style-type: none"> Relate Counting to Addition and Subtraction
1.OA.6 Add and subtract within 20.	<ul style="list-style-type: none"> Songs: Fact Families; Counting On Books: Facts about Families; Circus 20; Painting by Number Addition and Subtraction Fact Families Addition Sentences Subtraction Sentences Commutative Property of Addition Addition and Subtraction Relationship Missing Addends Missing Minuends and Subtrahends Subtraction Patterns 	<ul style="list-style-type: none"> Add and Subtract within 20

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Represent and solve problems involving addition and subtraction within 20 <i>continued</i>		
1.OA.6a Use strategies such as counting on; making ten (for example, $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (for example, $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (for example, knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (for example, adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).	<ul style="list-style-type: none"> Songs: Fact Families; Counting On Books: Facts about Families; Circus 20; Painting by Number Addition and Subtraction Fact Families Addition Sentences Subtraction Sentences Commutative Property of Addition Addition and Subtraction Relationship Missing Addends Missing Minuends and Subtrahends Subtraction Patterns 	<ul style="list-style-type: none"> Add and Subtract within 20
1.OA.6b By the end of Grade 1, demonstrate fluency for 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 Addition and Subtraction Relationship Subtraction Patterns 	<ul style="list-style-type: none"> Add and Subtract within 20
Work with addition and subtraction equations.		
1.OA.7 Understand the meaning of the equal sign, and determine whether equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.	<ul style="list-style-type: none"> Song: Fact Families Book: Facts About Families Addition and Subtraction Fact Families Addition and Subtraction Relationship Commutative Property of Addition Addition Sentences Subtraction Sentences Greater Than, Less Than More Than, Fewer Than 	<ul style="list-style-type: none"> Equal sign
1.OA.8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = ? - 3$, $6 + 6 = ?$	<ul style="list-style-type: none"> Addition Sentences Subtraction Sentences Addition and Subtraction Fact Families Missing Addends Missing Minuends and Subtrahends 	

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Number and Operations in Base Ten (1.NBT)		
Extend the counting sequence.		
1.NBT.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	<ul style="list-style-type: none"> Song: Counting On Count On Number Chart 	<ul style="list-style-type: none"> Count to 120
Understand place value.		
1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: a 10 can be thought of as a bundle of ten ones, called a “ten.”	<ul style="list-style-type: none"> Song: Place Value Place Value of 2-digit Numbers Add with Manipulatives 	<ul style="list-style-type: none"> Tens as a Bundle of Ones
1.NBT.2b The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.	<ul style="list-style-type: none"> Song: Place Value Place Value of 2-digit Numbers Add with Manipulatives 	<ul style="list-style-type: none"> 11-19 Broken Down
1.NBT.2c The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).	<ul style="list-style-type: none"> Place Value Place Value of 2-digit Numbers 	<ul style="list-style-type: none"> Ten Groupings
1.NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.	<ul style="list-style-type: none"> Place Value Greater Than, Less Than (2-digit Numbers) 	<ul style="list-style-type: none"> Compare Two-Digit Numbers

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Use place value understanding and properties of operations to add and subtract.		
1.NBT.4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens to tens and ones to ones, and that it is sometimes necessary to compose a ten.	<ul style="list-style-type: none"> Addition Add Tens Add with Manipulatives Add Vertical Squares Add with Beads Addition and Subtraction Relationship Add with Regrouping Concept Add 2-digit and 1-digit Numbers with Regrouping Add 2-digit Numbers without Regrouping Add 2-digit Numbers with Regrouping 	<ul style="list-style-type: none"> Adding within 100
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"> Song: Skip Counting Add Subtract Add Tens Subtract Tens Skip Count by 10 Number Chart 	<ul style="list-style-type: none"> Ten More or Less
1.NBT.6 Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	<ul style="list-style-type: none"> Subtraction Subtract Tens Subtraction Patterns Subtract Place Value Addition and Subtraction Relationship Use Manipulatives 	<ul style="list-style-type: none"> Subtracting in 10s

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Measurement and Data (1.MD)		
Measure lengths indirectly and by iterating length units.		
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
1.MD.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.	<ul style="list-style-type: none"> Length Nonstandard Units of Length 	<ul style="list-style-type: none"> Length Measurement
Tell and write time.		
1.MD.3 Tell and write time in hours and half-hours using analog and digital clocks.	<ul style="list-style-type: none"> Song: Clock Hands Book: 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
Represent and interpret data.		
1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	<ul style="list-style-type: none"> Songs: Tallying; Graphing Books: One More Cat; The Booneville Nine Tally Marks Graphs Make a Table 	<ul style="list-style-type: none"> Data Categorization

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Identify the value of coins.		
1.MD.5 Identify the values of pennies, nickels, dimes and quarters, and know their comparative values. (For example, a dime is of greater value than a nickel.) Use appropriate notation to designate a coin's value. (For example, 5¢.)	<ul style="list-style-type: none"> Songs: Money; Save Your Pennies Coin Identification Coin Value 	<ul style="list-style-type: none"> Coin Identification and Value
Geometry (1.G)		
Reason with shapes and their attributes.		
1.G.1 Distinguish between defining attributes (for example, triangles are closed and three-sided) versus non-defining attributes (for example, color, orientation, overall size); build and draw shapes that possess defining attributes.	<ul style="list-style-type: none"> Songs: Corners and Sides; Kites Geoboard Space Shapes 	<ul style="list-style-type: none"> Attributes
1.G.2 Compose shapes.	<ul style="list-style-type: none"> Song: Shapes, Shapes, Shapes Simple Shapes Space Shapes Geoboard Tangrams 	
1.G.2a Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) to create a composite shape, and compose new shapes from the composite shape.	<ul style="list-style-type: none"> Song: Shapes, Shapes, Shapes Simple Shapes Rectangle, Triangle, Circle, Square Geoboard Tangrams 	

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Reason with shapes and their attributes <i>continued</i> .		
1.G.2b Compose three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. First grade students do not need to learn formal names such as “right rectangular prism.”	<ul style="list-style-type: none"> Songs: Kites; Corners and Sides Star, Semicircle, Octagon, Rhombus Solid Shapes Space Shapes World Shapes 	
1.G.3 Partition circles and rectangles into two and four equal shares; describe the shares using the words halves, fourths, and quarters; and use the phrases half of, fourth of, and quarter of. Describe the whole as two or four of the shares. Understand that, for these examples, decomposing into more equal shares creates smaller shares.	<ul style="list-style-type: none"> Song: Fractions Books: Halves and Fourths and Thirds; Half For You and Half for Me Equal-part Fractions Label Parts of Fractions 	<ul style="list-style-type: none"> Equal Shares
Grade 2		
Operations and Algebraic Thinking (2.OA)		
Represent and solve problems involving addition and subtraction.		
2.OA.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions, for example, by using drawings and equations with a symbol for the unknown number to represent the problem.	<ul style="list-style-type: none"> Book: Painting by Number Addition Subtraction Missing Addends and Subtrahends Subtraction Sentences Addition and Subtraction Facts 	One- and Two-step Word Problems within 100

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Fluently add and subtract within 20.		
2.OA.2 Fluently add and subtract within 20.	<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
2.OA.2a Add and subtract within 20 using mental strategies such as counting on; making ten (for example, $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (for example, $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (for example, knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (for example, adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).	<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
2.OA.2b By the end of Grade 2, know from memory all sums of two one-digit numbers.	<ul style="list-style-type: none"> Addition Facts to 20 	<ul style="list-style-type: none"> Add and Subtract within 20
Work with equal groups of objects to gain foundations for multiplication.		
2.OA.3 Determine whether a group of objects (up to 20) has an odd or even number of members, (for example, by pairing objects or counting them by twos). Write an equation to express an even number as a sum of two equal addends.	<ul style="list-style-type: none"> Song: Odd Todd and Even Steven Skip Count by 2 Addition Facts 	<ul style="list-style-type: none"> Odd and Even Recognition
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 	

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Number and Operations in Base Ten (2.NBT)		
Understand place value.		
2.NBT.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; for example, 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: a 100 can be thought of as a bundle of ten tens called a “hundred.”	<ul style="list-style-type: none"> Song: Place Value Place Value Place Value of 3-digit Numbers 	<ul style="list-style-type: none"> Thinking of 100 as a Bundle of Ten 10s
2.NBT.1b The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).	<ul style="list-style-type: none"> Song: Place Value Place Value Place Value of 3-digit Numbers 	<ul style="list-style-type: none"> Grouping Hundreds
2.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds.	<ul style="list-style-type: none"> Song: Skip Counting Book: 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 1,000
2.NBT.3 Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form.	<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
2.NBT.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.	<ul style="list-style-type: none"> 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

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Use place value understanding and properties of operations to add and subtract.		
2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	<ul style="list-style-type: none"> Place Value Addition and Subtraction Relationship Commutative Properties of Addition Addition Subtraction Add without Regrouping Add with Regrouping Subtract without regrouping Subtract with Regrouping 	<ul style="list-style-type: none"> Add and Subtract within 100
2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.	<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 Two-Digit Numbers
2.NBT.7 Add and subtract within 1,000 using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, and ones and ones, and that it is sometimes necessary to compose or decompose tens or hundreds.	<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
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 	<ul style="list-style-type: none"> Mentally Adding or Subtracting 10 or 100

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Use place value understanding and properties of operations to add and subtract <i>continued</i> .		
2.NBT.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. Explanations may be supported by drawings or objects.	<ul style="list-style-type: none"> Addition Subtraction Add with Regrouping Concept Subtract with Regrouping Concept Place Value Number Line Addition and Subtraction Relationship Commutative Properties of Addition Act Out Addition Act Out Subtraction 	<ul style="list-style-type: none"> Explaining Addition and Subtraction Strategies
Measurement and Data (2.MD)		
Measure and estimate lengths in standard units.		
2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	<ul style="list-style-type: none"> Song: Measuring Plants Book: Birds at My House Length Measurement Tools Standard Units of Length 	<ul style="list-style-type: none"> Measurement Tools
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
2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.	<ul style="list-style-type: none"> Song: Measuring Plants Length Standard Units of Length Measurement Tools 	<ul style="list-style-type: none"> Estimating Lengths
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. For example, after measuring a pencil and a crayon, a student uses the measurements to determine that the pencil is two inches longer than the crayon.	<ul style="list-style-type: none"> Length Standard Units of Length 	<ul style="list-style-type: none"> Measure Length

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Relate addition and subtraction to length.		
2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units. For example, use drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.	<ul style="list-style-type: none"> Book: Yangshi's Perimeter Addition Subtraction Length Standard Units of Length 	<ul style="list-style-type: none"> One- and Two-step Word Problems within 100
2.MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2... Represent whole number sums and differences within 100 on a number line diagram.	<ul style="list-style-type: none"> Number Line Length 	
Work with time and money.		
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
2.MD.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. For example, if you have 2 dimes and 3 pennies, how many cents do you have?	<ul style="list-style-type: none"> Songs: Money; Save Your Pennies Book: Bugs For Sale Coin Identification Coin Value Quarters Count Dimes, Nickels, and Pennies Count Quarters, Dimes, Nickels, and Pennies Count Nickels and Pennies or Dimes and Pennies Make Change Count Coins Count Bills and Coins Equivalent Sums of Money 	<ul style="list-style-type: none"> Solve Money Word Problems

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Represent and interpret data.		
2.MD.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.	<ul style="list-style-type: none"> Measurement Tools 	<ul style="list-style-type: none"> Generating Measurement Data
2.MD.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and comparison problems using information presented in a bar graph.	<ul style="list-style-type: none"> Song: Graphing Graphing Picture Graphs Bar Graphs Use Graphs and Tables 	<ul style="list-style-type: none"> Graphs
Geometry (2.G)		
Reason with shapes and their attributes.		
2.G.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Sizes are compared directly or visually, not compared by measuring. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	<ul style="list-style-type: none"> Songs: Shapes, Shapes, Shapes; Corners and Sides; Kites Book: The Shape of Things Space Shapes World Shapes Geoboard 	<ul style="list-style-type: none"> Draw Shapes
2.G.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of squares.	<ul style="list-style-type: none"> Song: Fractions Fractions of Regions 	
2.G.3 Partition circles and rectangles into two, three, or four equal shares; describe the shares using the words halves, thirds, half of, a third of, etc.; and describe the whole as two halves, three thirds, or four fourths. Recognize that equal shares of identical wholes need not have the same shape.	<ul style="list-style-type: none"> Song: Fractions Books: Halves and Fourths and Thirds; The Fraction Twins Fractions Label Parts of Fractions Fractions of Regions Fractions of Groups 	<ul style="list-style-type: none"> Fractions

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Science (SEEd)		
Kindergarten		
K.1: Weather Patterns		
K.1.1 Obtain, evaluate, and communicate information about local, observable weather conditions to describe patterns over time. Emphasize the students' collection and sharing of data. Examples of data could include sunny, cloudy, windy, rainy, cold, or warm. (ESS2.D)	<ul style="list-style-type: none"> • Song: Seasons • Book: That's What I Like: A Book About Seasons • Weather • Calendar/Graph Weather • Weather Patterns • Clouds • Spring • Summer • Fall • Winter 	<ul style="list-style-type: none"> • Weather • The Weather Around Us • Weather Cards
K.1.2 Obtain, evaluate, and communicate information on the effect of forecasted weather patterns on human behavior. Examples could include how humans respond to local forecasts of typical and severe weather such as extreme heat, high winds, flash floods, thunderstorms, or snowstorms. (ESS3.B)	<ul style="list-style-type: none"> • Songs: Precipitation; Storms • Book: Whatever the Weather • Weather • Weather Tools • Calendar/Graph Weather • Weather Affects People and Animals • Weather Experiment • Lightning Safety 	<ul style="list-style-type: none"> • Weather • The Weather Around Us • Weather Cards
K.1.3 Carry out an investigation using the five senses, to determine the effect of sunlight on different surfaces and materials. Examples could include measuring temperature, through touch or other methods, on natural and man-made materials in various locations throughout the day. (PS3.B)	<ul style="list-style-type: none"> • Song: Five Senses • Sight • Hearing • Touch • Smell • Taste • Sun • Science Tools 	

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
K.1: Weather Patterns <i>continued</i>		
K.1.4 Design a solution that will reduce the warming effect of sunlight on an area. Define the problem by asking questions and gathering information, convey designs through sketches, drawings, or physical models, and compare and test designs.(PS3.B, ETS1.A, ETS1.B, ETS1.C)	<ul style="list-style-type: none"> Waterford encourages everyone to have writing, drawing, and art materials available for children's creations. 	
K.2: Living Things and Their Surroundings		
K.2.1 Obtain, evaluate, and communicate information to describe patterns of what living things (plants and animals, including humans) need to survive. Emphasize the similarities and differences between the survival needs of all living things. Examples could include that plants depend on air, water, minerals, and light to survive, or animals depend on plants or other animals to survive. (LS1.C)	<ul style="list-style-type: none"> Songs: Water; Food From Plants Books: Mela's Water Pot; Everybody Needs to Eat Sun Plants Water Plants and Animals Need Air Plants Need Water Animals Need Water Healthy Plants' Needs 	<ul style="list-style-type: none"> Water for Plants Green and Growing
K.2.2 Obtain, evaluate, and communicate information about patterns in the relationships between the needs of different living things (plants and animals, including humans) and the places they live. Emphasize that living things need water, air, and resources and that they live in places that have the things they need. Examples could include investigating plants grown in various locations and comparing the results or comparing animals with the places they live. (LS2.B, ESS3.A)	<ul style="list-style-type: none"> Songs: Four Ecosystems; Plants Are Growing Book: Where in the World Would You Go Today? Ecosystems Animal Behavior Oceans Mountains Deserts Rainforests 	<ul style="list-style-type: none"> Our Earth Places on Earth

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
K.2: Living Things and Their Surroundings <i>continued</i>		
K.2.3 Standard K.2.3 Obtain, evaluate, and communicate information about how living things (plants and animals, including humans) affect their surroundings to survive. Examples could include squirrels digging in the ground to hide their food, plant roots breaking concrete, or humans building shelters. (ESS2.E)	<ul style="list-style-type: none"> Books: Turtle's Pond; Winter Snoozers; Birds At My House 	
K.2.4 Design and communicate a solution to address the effects that living things (plants and animals, including humans) experience while trying to survive in their surroundings. Define the problem by asking questions and gathering information, convey designs through sketches, drawings, or physical models, and compare designs. Emphasize students working from a plant, animal, or human perspective. Examples could include a plant growing to get more sunlight, a beaver building a dam, or humans caring for the Earth by reusing and recycling natural resources. (ESS3.C, ETS1.A, ETS1.B, ETS1.C)	<ul style="list-style-type: none"> Songs: Pollution Rap; Food From Plants Books: Mela's Water Pot; Everybody Needs to Eat; Little Tree; Turtle's Pond Pollution and Recycling Care of Earth Care of Water 	<ul style="list-style-type: none"> Water for Plants Green and Growing

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
K.3: Forces, Motion, and Interactions		
K.3.1 Plan and conduct an investigation to compare the effects of different strengths or different directions of forces on the motion of an object. Emphasize forces as a push and pull on an object. The idea of strength should be kept separate from the idea of direction. Non-contact forces, such as magnets and static electricity, will be taught in Grades 3 through 5. (PS2.A, PS2.B, PS2.C, PS3.C)	<ul style="list-style-type: none"> Song: Push and Pull Book: Mr. Mario's Neighborhood Push and Pull 	<ul style="list-style-type: none"> How It Works
K.3.2 Analyze data to determine how a design solution causes a change in the speed or direction of an object with a push or a pull. Define the problem by asking questions and gathering information, convey designs through sketches, drawings, or physical models, and compare and test designs. Examples of problems requiring a solution could include having a marble or other object move a certain distance, follow a particular path, or knock down other objects. (PS2.A, PS2.B, PS2.C, PS3.C, ETS1.A, ETS1.B, ETS1.C)	<ul style="list-style-type: none"> Song: Push and Pull Book: Mr. Mario's Neighborhood Push and Pull 	<ul style="list-style-type: none"> How It Works

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Grade 1		
1.1: Seasons and Space Patterns		
1.1.1 Obtain, evaluate, and communicate information about the movement of the Sun, Moon, and stars to describe predictable patterns. Examples of patterns could include how the Sun and Moon appear to rise in one part of the sky, move across the sky, and set; or how stars, other than the Sun, are visible at night but not during the day. (ESS1.A)	<ul style="list-style-type: none"> Songs: The Moon; Sun Blues Book: Moon Song Sun Moon Constellations 	<ul style="list-style-type: none"> The Moon The Sky Above Us
1.1.2 Obtain, evaluate, and communicate information about the patterns observed at different times of the year to relate the amount of daylight to the time of year. Emphasize the variation in daylight patterns at different times of the day and different times of the year. Examples could include varying locations and regions throughout the state, country, and world. (ESS1.B)	<ul style="list-style-type: none"> Book: That's What I Like: A Book About Seasons Spring Summer Fall Winter 	
1.1.3 Design a device that measures the varying patterns of daylight. Define the problem by asking questions and gathering information, convey designs through sketches, drawings, or physical models, and compare and test designs. Examples could include sundials for telling the time or tracking the movement of shadows throughout the day. (ESS1.B, ETS1.A, ETS1.B, ETS1.C)	<ul style="list-style-type: none"> Book: My Family Campout Light Exploration Properties of Light 	

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
1.2: The Needs of Living Things and Their Offspring		
1.2.1 Plan and carry out an investigation to determine the effect of sunlight and water on plant growth. Emphasize investigations that test one variable at a time. (LS1.C)	<ul style="list-style-type: none"> Song: Plants Are Growing Sun Water Plant Experiment 	<ul style="list-style-type: none"> Light for Plants Water for Plants Green and Growing
1.2.2 Construct an explanation by observing patterns of external features of living things that survive in different locations. Emphasize how plants and nonhuman animals, found in specific surroundings, share similar physical characteristics. Examples could include that plants living in dry areas are more likely to have thick outer coatings that hold in water, animals living in cold locations have longer and thicker fur, or most desert animals are awake at night. (LS1.A, LS1.D)	<ul style="list-style-type: none"> Songs: Four Ecosystems; Plants Are Growing Books: Where in the World Would You Go Today?; Animal Bodies Functions of Plant Parts Oceans Mountains Deserts Rainforests 	<ul style="list-style-type: none"> Animals
1.2.3 Obtain, evaluate, and communicate information about the patterns of plants and nonhuman animals that are alike, but not exactly like, their parents. An example could include that most carrots are orange and shaped like a cone but may be different sizes or have differing tastes. (LS3.A, LS3.B)	<ul style="list-style-type: none"> Books: George and Jack; A Seed Grows Amphibians 	<ul style="list-style-type: none"> Traits
1.2.4 Construct an explanation of the patterns in the behaviors of parents and offspring which help offspring to survive. Examples of behavioral patterns could include the signals that offspring make such as crying, chirping, and other vocalizations or the responses of the parents such as feeding, comforting, and protecting the offspring. (LS1.B)	<ul style="list-style-type: none"> Song: Animal Bodies Animal Behavior Animal Bodies Mammals 	

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
1.3: Light and Sound		
1.3.1 Plan and carry out an investigation to show the cause and effect relationship between sound and vibrating matter. Emphasize that vibrating matter can make sound and that sound can make matter vibrate. (PS4.A)	<ul style="list-style-type: none"> Song: Sound Book: What Sounds Say Sound Waves 	<ul style="list-style-type: none"> Sound
1.3.2 Use a model to show the effect of light on objects. Emphasize that objects can be seen when light is available to illuminate them or if they give off their own light. (PS4.B)	<ul style="list-style-type: none"> Books: My Family Campout; Lightning Bugs Light Properties Properties of Light 	
1.3.3 Plan and carry out an investigation to determine the effect of materials in the path of a beam of light. Emphasize that light can travel through some materials, can be reflected off some materials, and some materials block light causing shadows. Examples of materials could include clear plastic, wax paper, cardboard, or a mirror. (PS4.B)	<ul style="list-style-type: none"> Book: My Family Campout Light Properties Properties of Light 	
1.3.4 Design a device in which the structure of the device uses light or sound to solve the problem of communicating over a distance. Define the problem by asking questions and gathering information, convey designs through sketches, drawings, or physical models, and compare and test designs. Examples of devices could include a light source to send signals, paper-cup-and-string telephones, or a pattern of drum beats. (PS4.C, ETS1.A, ETS1.B, ETS1.C)	<ul style="list-style-type: none"> Song: Inventing Books: I Want to Be a Scientist Like Thomas Edison; Inventions All Around 	

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
Grade 2		
2.1: Changes In The Earth's Surface		
2.1.1 Develop and use models illustrating the patterns of landforms and water on Earth. Examples of models could include valleys, canyons, or floodplains and could depict water in the solid or liquid state. (ESS2.B)	<ul style="list-style-type: none"> Songs: Four Ecosystems; I Am Part of All I See Books: Where in the World Would You Go Today?; Water Is All Around Oceans Mountains Deserts Rainforests Water 	
2.1.2 Construct an explanation about changes in Earth's surface that happen quickly or slowly. Emphasize the contrast between fast and slow changes. Examples of fast changes could include volcanic eruptions, earthquakes, or landslides. Examples of slow changes could include the erosion of mountains or the shaping of canyons. (ESS1.C)	<ul style="list-style-type: none"> Songs: The Four Seasons; Rock Cycle Books: That's What I Like: A Book About Seasons; Whatever the Weather; Fossils Under Our Feet Rock Cycle Fossils Spring Summer Fall Winter Water 	<ul style="list-style-type: none"> Rocks
2.1.3 Design solutions to slow or prevent wind or water from changing the shape of land. Define the problem by asking questions and gathering information, convey designs through sketches, drawings, or physical models, and compare and test designs. Examples of solutions could include retaining walls, dikes, windbreaks, shrubs, trees, and grass to hold back wind, water, and land. (ESS2.A, ESS2.C, ETS1.A, ETS1.B, ETS1.C)	<ul style="list-style-type: none"> Waterford encourages everyone to have writing, drawing, and art materials available for children's creations. 	

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
2.2: Living Things and Their Habitats		
2.2.1 Obtain, evaluate, and communicate information about patterns of living things (plants and animals, including humans) in different habitats. Emphasize the diversity of living things in land and water habitats. Examples of patterns in habitats could include descriptions of temperature or precipitation and the types of plants and animals found in land habitats. (LS2.C, LS4.C, LS4.D)	<ul style="list-style-type: none"> Songs: Animal Bodies; Four Ecosystems Books: Animal Bodies; Where in the World Would You Go Today? Ecosystems Animal Bodies Animal Behavior Oceans Mountains Deserts Rainforests 	<ul style="list-style-type: none"> Places on Earth
2.2.2 Plan and carry out an investigation of the structure and function of plant and animal parts in different habitats. Emphasize how different plants and animals have different structures to survive in their habitat. Examples could include the shallow roots of a cactus in the desert or the seasonal changes in the fur coat of a wolf. (LS1.A, LS4.A, LS4.D)	<ul style="list-style-type: none"> Songs: Animal Bodies; Plants Are Growing Book: Animal Bodies Ecosystems Animal Bodies Animal Behavior Plant Parts 	
2.2.3 Develop and use a model that mimics the function of an animal dispersing seeds or pollinating plants. Examples could include plants that have seeds with hooks or barbs that attach themselves to animal fur, feathers, or human clothing, or dispersal through the wind, or consumption of fruit and the disposal of the pits or seeds. (LS2.A)	<ul style="list-style-type: none"> Waterford encourages everyone to have writing, drawing, and art materials available for children's creations. 	

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
2.2: Living Things and Their Habitats <i>continued</i>		
<p>2.2.4 Design a solution to a human problem by mimicking the structure and function of plants and/or animals and how they use their external parts to help them survive, grow, and meet their needs. Define the problem by asking questions and gathering information, convey designs through sketches, drawings, or physical models, and compare and test designs. Examples could include a human wearing a jacket to mimic the fur of an animal or a webbed foot to design a better swimming fin. (LS1.A, LS1.D, ETS1.A, ETS1.B, ETS1.C)</p>	<ul style="list-style-type: none"> Books: I Wish I Had Ears Like a Bat; Animal Bodies; Fawn Eyes Deserts 	
2.3: Properties of Matter		
<p>2.3.1 Plan and carry out an investigation to classify different kinds of materials based on patterns in their observable properties. Examples could include sorting materials based on similar properties such as strength, color, flexibility, hardness, texture, or whether the materials are solids or liquids. (PS1.A)</p>	<ul style="list-style-type: none"> Songs: Matter; Solid or Liquid Book: Pancakes Matter Changes in Matter Solid and Liquid Solid, Liquid, Gas Materials Movement of Heat States of Water Rocks 	<ul style="list-style-type: none"> States of Water

Utah Core Math & Science Standards	Waterford Digital Activities	Waterford Resources
2.3: Properties of Matter <i>continued</i>		
2.3.2 Construct an explanation showing how the properties of materials influence their intended use and function. Examples could include using wood as a building material because it is lightweight and strong or the use of concrete, steel, or cotton due to their unique properties. (PS1.A)	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Materials • Density Experiment • Movement of Heat • Heat Movement 	<ul style="list-style-type: none"> • How It Works
2.3.3 Develop and use a model to describe how an object, made of a small set of pieces, can be disassembled and reshaped into a new object with a different function. Emphasize that a great variety of objects can be built from a small set of pieces. Examples of pieces could include wooden blocks or building bricks. (PS1.A)	<ul style="list-style-type: none"> • Song: Inventing • Books: Inventions All Around; I Want to Be a Scientist Like Wilbur and Orville Wright • Inventions 	<ul style="list-style-type: none"> • Recycling • Simple Machines
2.3.4 Obtain, evaluate, and communicate information about changes in matter caused by heating or cooling. Emphasize that some changes can be reversed and some cannot. Examples of reversible changes could include freezing water or melting crayons. Examples of irreversible changes could include cooking an egg or burning wood. (PS1.B)	<ul style="list-style-type: none"> • Books: Warm Soup for Dedushka; Pancakes Matter • Changes in Matter • Movement of Heat • States of Water • Heat Changes Water • Matter Experiment 	

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



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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 [→mentor.waterford.org](https://www.mentor.waterford.org) can be found in Spanish or with Spanish support.

Songs

Beginning Math Songs

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

Nursery Songs and Rhymes

Rhyming Words / A: The Apple Tree / B: Bluebird, Bluebird / C: Pat-a-Cake / D: Hey Diddle, Diddle / E: One Elephant Went Out to Play / F: The Farmer in the Dell / G: Ten Little Goldfish / H: All the Pretty Little Horses / I: Mother, Mother, I Am Ill / J: Jack and Jill / K: Three Little Kittens / L: Mary Had a Little Lamb / M: Little Miss Muffett / 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.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 Mentor

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