SEPTEMBER 2018

CURRICULUM *Correlation*

TABLE OF CONTENTS

OVERVIEW

This document provides a detailed correlation of WATERFORD MATH & SCIENCE *to* UTAH CORE STATE STANDARD FOR MATHEMATICS 2016.

WATERFORD CURRICULUM DETAILS

Waterford Curriculum provides technology-driven curriculum for early learners.

Waterford Early Learning is a technology-based early reading, math, and science program with integrated assessments and teacher resources.

Waterford Reading is a comprehensive, adaptive reading curriculum designed to help each student become a fluent reader. Waterford Reading incorporates five essential reading strands: phonological awareness, phonics, comprehension and vocabulary, language concepts, and fluency.

Following an extensive review, Waterford Reading received CASE endorsement in 2016. The Council of Administrators of Special Education (CASE) is an international educational organization affiliated with the Council for Exceptional Children.

Waterford Math & Science provides young learners comprehensive instruction in the major areas of early math: numbers and operation, algebraic reasoning, geometry and measurement, and data analysis. The integrated science curriculum emphasizes exploration and the scientific method while teaching earth, life, and physical science.

EVIDENCE-BASED CURRICULUM

Waterford curriculum has been formally evaluated in dozens of studies. In each study, Waterford classrooms outperform comparison-group classes in most, if not all, of the examined measures. In particular, Waterford stands out for providing significant learning gains for at-risk students and English Language Learners.

STUDENT-CENTERED LEARNING

Waterford's student-centered, personalized learning software adapts automatically to give each student a unique learning experience tailored to his or her own skill level and pace.

Placement Assessment: Students begin their experience with a Placement Assessment. Based on rigorous research, the Placement Assessment evaluates a student's abilities and determines an appropriate starting point.

Adaptive, Individualized Learning: Waterford provides a mastery-based curriculum. As such, Waterford automatically provides instruction, remediation, and review to support students toward mastery of learning objectives based on student performance in ongoing assessment.

Data-Informed Instruction: Administrators and teachers can also use the program's rich reporting features to monitor progress in real-time, to identify areas of difficulty, and to utilize additional intervention tools in varied instructional settings.

TEACHER RESOURCES

With resources available in the Waterford Manager, thousands of online activities are available for teachers to use with an interactive whiteboard or projector. This flexible tool for blended learning increases teachers' instructional efficacy. Teachers can easily deliver engaging lessons aligned to their own pacing guide, core curriculum, or state standards.

For preK teachers looking for daily lesson plans, a complete curriculum comprised of seven thematic units is available for download in the Waterford Manager.

CORRELATION DESCRIPTION

This document correlates state standards to Waterford resources. Waterford resources include

- **Digital Resources:** Engaging, evidence-based online activities that are presented to students during their individualized instruction. These activities are also available for collaborative instruction in Classroom Advantage.
- **Print, PDF, and Internet Resources:** Teacher guides, Waterford Manager teacher PDFs, hundreds of student books and songs, family engagement activities, newsletters and more complement Waterford's extensive digital resources.

CONTINUAL DEVELOPMENT

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

SUPPORT

Professional Services offers a continuum of customizable services. Learn more here.

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES*
KINDERGARTEN		
COUNTING AND CARDINALITY (K.CC)		
Know number names and the counting sequence.		
K.CC.1 Count to 100 by ones and by tens.	• Number Songs • Counting Songs • Math Books (See titles at end of document.) • Number Instruction • Number Counting • Skip Counting	• Count to 100 by ones and tens.pdf: Count to 100 by ones and tens. – Missing Numbers – Count On By 1 – Numbers 1–5 – Numbers 6–10 – Math Newsletters – Count By 10s – Numbers 60–69 – I Can Count to 100
K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	• Counting Songs (See titles at end of document.) • Count On • Counting Puzzle • Dot-to-Dot	• Counting forward.pdf: Count forward beginning with a given number within the known sequence. – Let's Count On – Toss and Count – Count On by 1 – Math Newsletter: Count On – Flashcards
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).	• Math Books • Number Songs • Counting Songs (See titles at end of document.) • Number Counting • Number Instruction • Number Recognition and Sense • Picture Puzzle • Shape Puzzle • Moving Target • Make and Count Groups • Bug Fun • Match Numbers • Number Review	• Writing from 0 to 20.pdf: Write numbers from 0 to 20. Represent a number of objects with a written numeral. – Numbers Practice: 1–20 – Numbers 1–5 – Add groups – Count on by 1 – Number Writing Practice: 0–20

* Waterford Teacher Resources are available for download in the Waterford Manager (https://manager.waterford.org/).

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Count to tell the number of objects.		
K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.	• Counting Songs • Number Songs • Math Books (See titles at end of document.) • Make and Count Groups • Number Counting • Order Numbers • Number Instruction • Number Recognition and Sense • Numbers Review • Match Numbers • Bug Fun • Counting Puzzle • Shape Puzzle • One-to-one Correspondence	
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.	• Counting Songs • Number Songs • Math Books (See titles at end of document.) • Make and Count Groups • Number Counting • Order Numbers • Number Instruction • Number Recognition and Sense • Numbers Review • Match Numbers • Bug Fun • One-to-one Correspondence	• Object Counting Basics.pdf: When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. – Number Walk
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.	• Make and Count Groups • One-to-one Correspondence • Number Counting • Match Numbers	• Object Counting Grouping.pdf: Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. – Mixed Up Counting

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Count to tell the number of objects *continued*.		
K.CC.4c Understand that each successive number refers to a quantity that is one greater than the previous number.	• Make and Count Groups • One-to-one Correspondence • Number Counting • Match Numbers	• Object Counting Succession.pdf: Understand that each successive number name refers to a quantity that is one larger. – Hoop Addition
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.	• Counting Songs • Number Songs • Math Books (See titles at end of document.) • Make and Count Groups • Number Counting • Order Numbers • Number Instruction • Number Recognition and Sense • Numbers Review • Match Numbers • Bug Fun • One-to-one Correspondence	• How many?.pdf: Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. – Hoop Addition
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.	• Book: For the Birds • Greater Than, Less Than • More Than, Fewer Than • More Than • Fewer Than • Make a Math Story: More Than, Fewer Than	• Greater, less, or equal.pdf: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. – Beans and More – More Than Buttons – Short Names, Long Names – Noodle Necklaces – Groups Do Count! – More Than, Fewer Than, Equal – Which Has More? 1 & 2 – Fewer Than – More or Fewer – Greater or Less – More Than/Fewer Than Flashcard Sets

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Identify and compare quantities of objects and numerals *continued*.		
K.CC.7 Compare two numbers between 1 and 10 presented as written numerals using "greater than," "less than," or "equal to."	• Book: For the Birds • Greater Than, Less Than • More Than, Fewer Than • More Than • Fewer Than • Order Numbers • Make a Math Story: More Than, Fewer Than	• Comparing numbers.pdf: Compare two numbers between 1 and 10 presented as written numerals. – More or Less Spinner – Catch Me If You Can! – Greater or Less – Less or Greater – Spinner – Board game – Number cards
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.	• Songs: Addition; Pirates Can Add; On the Bayou; Bakery Subtraction; Circus Subtraction; Subtract Those Cars • Book: Five Delicious Muffins • Add Groups • Subtract Groups • Minuends to 5 • Minuends to 9 • Sums to 4-10 and Subtract from 4-9 • Act Out Addition/Subtraction	
K.OA.2 Solve addition and subtraction word problems within 10. Use objects or drawings to represent the problem.	• Songs: Addition; Pirates Can Add; On the Bayou; Bakery Subtraction; Circus Subtraction; Subtract Those Cars • Book: Five Delicious Muffins • Minuends to 5 • Minuends to 9 • Add Groups • Subtract Groups • Sums to 4-10 and Subtract from 4-9 • Act Out Addition/Subtraction • Flower Story Problems • Story Problem Strategies	• Addition and subtraction word problems.pdf: Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. – Addition Stories – Act It Out Stories – Manipulative Stories – Edible Stories – One, Two, Three, Show – Circus Subtraction – Partner Subtraction – Farmer's Market – Green and Speckled Frogs – Cars and Trucks Subtraction

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from *continued*.		
K.OA.2 Solve addition and subtraction word problems within 10. Use objects or drawings to represent the problem *continued*.		• Addition and subtraction word problems.pdf: Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem *continued*. – Yummy Subtraction – Act Out Addition – Act Out Subtraction – Addition Newsletter – Subtraction Newsletter – Subtraction Flashcards
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.	• Make and Count Groups • Add Groups • Subtract Groups	
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.	• Missing Addends • Kingdom of Counting • Flower Story Problems • Counting On	
K.OA.5 Fluently add and subtract using numbers within 5.	• Songs: Addition; On the Bayou; Pirates Can Add; Bakery Subtraction; Circus Subtraction; Subtract Those Cars • Book: Five Delicious Muffins • Add Groups • Subtract Groups • Sums • Subtract from 5 • Minuends • Act Out Addition • Act Out Subtraction • Speed Games	

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER 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.	• Place Value (10-19)	• Tens and ones.pdf: Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation; understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. – Place Value 11–19 (1 & 2)
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.	• Song: Measuring Plants • Length	• Measurable attributes.pdf: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. – Filling Table – Order It Up – Straw Rulers – Measuring Walk – Heavy or Light – Make A Balance – 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.	• Songs: Savanna Size; Measuring Plants • Order Size • Capacity • Length • Big and Little • Tall and Short • Heavy and Light • Size	• Comparing objects.pdf: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. – Filling Table – Order It Up – Straw Rulers – Measuring Walk – Heavy or Light – Make A Balance – Size Scavenger Hunt – Big and Little Sort – Boxes in a Line

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Describe and compare measurable attributes of objects *continued*.		
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 *continued*.		• Comparing objects.pdf: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object *continued*. – Teddy Bear Line-Up – Magazine Sorting – Tall and Short – Big and Little – Tall and Short – Heavy and Light – Small, Medium, Large – Measuring Length – Measurable Attributes
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.	• Songs: Same and Different; All Sorts of Laundry • Book: Buttons, Buttons • Match • Matching • Sort • Logic Game	• Classifying objects.pdf: Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. – Let's Sort – Sort
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.	• Songs: Position; Kites; Get Over the Bugs; Shapes, Shapes, Shapes; Up in the Air • Books: The Shape of Things; Imagination Shapes • Over, Under, Above, Below • Inside, Outside, Between • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Diamond • Solid Shapes • World Shapes • Above, Below, Next to, On • Story Problem Strategies: Shapes	• Describing objects.pdf: Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. – Shapes Scavenger Hunt

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Identify and describe shapes, including squares, circles, triangles, rectangles hexagons, cubes, cones, cylinders, and spheres *continued*.		
K.G.2 Correctly name shapes regardless of their orientations or overall sizes.	• Songs: Kites; Shapes, Shapes, Shapes; Corners and Sides; Congruent Parts • Books: The Shape of Things; Imagination Shapes • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Diamond • Simple Shapes • Solid Shapes • World Shapes • Congruence • Story Problem Strategies: Shape	• Shape recognition.pdf: Correctly name shapes regardless of their orientations or overall size. – Shapes Scavenger Hunt – Shapes and Positioning – Shapes Flashcard
K.G.3 Identify shapes as two-dimensional ("flat") or three-dimensional ("solid").	• Simple Shapes • Solid Shapes • Space Shapes	• Shape recognition.pdf: Correctly name shapes regardless of their orientations or overall size. – Shapes Scavenger Hunt – Shapes and Positioning – Shapes Flashcard
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).	• Song: Corners and Sides • Space Shapes • Congruence • Tangrams • Similar Figures • Story Problem Strategies	
K.G.5 Model and create shapes from components such as sticks and clay balls.	• Geoboard • Tangrams	
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?"	• Geoboard • Tangrams	

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
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.	• Problem Solving Strategy: Model or Act Out • Flower Story Problems • Story Problem Strategies: Commutative Property of Addition; Subtraction Sentences; Subtraction Relationship; Fact Families	• Word problems using subtraction within 20.pdf: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. – Guess and Check – Model the Story
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.	• Story Problem Strategies: Add 3 One-digit Numbers	• Word problems adding 3 numbers.pdf: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20. – Draw a Picture
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.	• Subtraction Patterns • Commutative Property of Addition • Kingdom of Counting: Commutative Property of Addition • Mental Math Games: Commutative Property of Addition	
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.	• Missing Addends • Subtraction Patterns • Kingdom of Counting: Missing Addends, Missing Addends to Sums to 10 • Mental Math Games: Missing Addends Sums to 10	• Understand subtraction as an unknown addend problem.pdf: Understand subtraction as an unknown-addend problem. – Add and subtract within 20. Write each subtraction problem as an addition problem and solve it.

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
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.	• Jump Rope Rhymes • Skip Count by 2 • Count On • Song: Counting On • Book: Circus 20	• Relate counting to addition and subtraction.pdf: Relate counting to addition and subtraction. – Skip Counting Chant – Jump Rope Counting – Related Facts – Count by 10s – Count by 5s – Count by 2s
1.OA.6 Add and subtract within 20.	• Song: Fact Families • Book: Facts about Families • Addition Sentences • Subtraction Sentences • Addition and Subtraction Relationship • Kingdom of Counting • Add 3 One-digit Numbers • Subtraction Patterns • Mental Math Games • Missing Addends • Missing Subtrahends • Addition and Subtraction Fact Families • Story Problem Strategies: Fact Families • Speed Games	• Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. – The Three Little Bears – Fact Family Bingo – A Graph of Fact Families – Bean Facts – Draw a Picture – Addition – Number Pyramid – Subtraction Sentences – Model the Story – Fact Families – Add _ and 1–5 – Add _ and 6–10 – Order Property of Addition – Add Doubles +1 to 11 – Add Doubles to 20 – Add Doubles +1 to 21 – Make 10 – Subtract _ from – Subtract – Subtraction Patterns – Fact Families to 10 – Fact Families to 20 – Add and Subtract Doubles *Flashcards:* – Addition—horizontal and vertical – Subtraction—horizontal and vertical

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Represent and solve problems involving addition and subtraction within 20 *continued*		
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).	• Song: Fact Families • Book: Facts about Families • Addition Sentences • Subtraction Sentences • Addition and Subtraction Relationship • Kingdom of Counting • Add 3 One-digit Numbers • Subtraction Patterns • Mental Math Games • Missing Addends • Missing Subtrahends • Addition and Subtraction Fact Families • Story Problem Strategies: Fact Families • Speed Games	• Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. – The Three Little Bears – Fact Family Bingo – A Graph of Fact Families – Bean Facts – Draw a Picture – Addition – Number Pyramid – Subtraction Sentences – Model the Story – Fact Families – Add _ and 1–5 – Add _ and 6–10 – Order Property of Addition – Add Doubles +1 to 11 – Add Doubles to 20 – Add Doubles +1 to 21 – Make 10 – Subtract _ from – Subtract – Subtraction Patterns – Fact Families to 10 – Fact Families to 20 – Add and Subtract Doubles *Flashcards:* – Addition—horizontal and vertical – Subtraction—horizontal and vertical

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Represent and solve problems involving addition and subtraction within 20 *continued*		
1.OA.6b By the end of Grade 1, demonstrate fluency for addition and subtraction within 10.	• Song: Fact Families • Book: Facts About Families • Mental Math Games • Missing Addends • Missing Subtrahends • Addition and Subtraction Fact Families	• Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. – The Three Little Bears – Fact Family Bingo – A Graph of Fact Families – Bean Facts – Draw a Picture – Addition – Number Pyramid – Subtraction Sentences – Model the Story – Fact Families – Add _ and 1–5 – Add _ and 6–10 – Order Property of Addition – Add Doubles +1 to 11 – Add Doubles to 20 – Add Doubles +1 to 21 – Make 10 – Subtract _ from – Subtract – Subtraction Patterns – Fact Families to 10 – Fact Families to 20 – Add and Subtract Doubles *Flashcards:* – Addition—horizontal and vertical – Subtraction—horizontal and vertical

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
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.	• Song: Finding the Difference • Book: Circus 20 • Addition Sentences • Subtraction Sentences	
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 = ?	• Missing Addends • Missing Minuends and Subtrahends • Mental Math Games	
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.	• Song: Counting On • Book: Hooray, Hooray for the One Hundredth Day! • Count On • Number Recognition and Sense • Number Chart	• Count to 120.pdf: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. – Mystery Numbers – I Can Write Numbers to 99 – Numbers 20–29 – Numbers 30–39 – Numbers 40–49 – Numbers 50–59 – Numbers 60–69 – Counting to 89 – Counting Charts: – I Can Count to 50 – I Can Count to 100 – I Can Count to 99 – I Can Count to 120

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
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:	• Song: Place Value • Place Value of 2-digit Numbers • Expanded Notation • Add with Manipulatives: Add 10 and 6-10 • Flower Story Problems: Add 10 and 6-10 • Number Recognition and Sense	
1.NBT.2a 10 can be thought of as a bundle of ten ones, called a "ten."	• Song: Place Value • Place Value of 2-digit Numbers • Expanded Notation • Add with Manipulatives: Add 10 and 6-10 • Flower Story Problems: Add 10 and 6-10 • Number Recognition and Sense	• Tens as a bundle of ones.pdf: 10 can be thought of as a bundle of ten ones—called a "ten." – Popsicles to Ten
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.	• Song: Place Value • Expanded Notation • Add with Manipulatives: Add 10 and 6-10 • Flower Story Problems: Add 10 and 6-10	• 11–19 broken down.pdf: The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. – Toss It – Make a Number – Numbers Flashcards – Numbers 10–19 – More Numbers 10–19
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).	• Expanded Notation • Story Problem Strategies: Expanded Notation, Place Value • Place Value • Place Value of 2-digit Numbers • Number Recognition and Sense	• Ten groupings.pdf: The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). – Toss It
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 <.	• Greater Than, Less Than (2-digit Numbers) • You Be the Teacher: Greater Than, Less Than	

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER 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.	• Addition • Place Value • Add Tens • Kingdom of Counting • Doubles, Sums to 20 • Doubles Plus 1, Sums to 20 • Add with Manipulatives • Add Vertical Squares • Add with Beads • Flower Story Problems • Story Problem Strategies: Addition Strategy • Mental Math Games • Speed Games • Story Problem Strategies; with Regrouping, without Regrouping • You Be the Teacher	• Adding within 100.pdf: Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of ten. – Drawing Tens – Beans, Beans, and More Beans – The Kingdom of Popsicle Stick-Filled Purses – Straws and Macaroni – Bean Addition – Newsletter – Adding Tens and Ones – Color Adds Up – Cookies and Milk! – Addition of Two-Digit Numbers – Addition and Subtraction of Large Numbers – 1 set of flashcards
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.	• Add 10 and 6-10 • Subtract 10 from 10-20 • Kingdom of Counting: Add 10 and 6-10; Subtract 10 from 10-20 • Flower Story Problems: Add 10 and 6-10; Subtract 10 from 10-20	• Ten more or less.pdf: Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. – Ten-O – Toss It – Make a Number – Subtract 10 – Flashcards – Bingo – Addition of Tens

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Use place value understanding and properties of operations to add and subtract *continued*.		
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.	• Subtraction • Subtraction Sentences • Subtract Tens • Subtraction Patterns • Subtract 10 from 10–20 • Kingdom of Counting: Subtraction Patterns • Use Manipulatives: Subtract 10 from 10–20 • Flower Story Problems: Subtraction Patterns; Subtract 10 from 10–20 • Story Problem Strategies: Subtract Ten • Problem Solving Strategies: Look for a Pattern • Mental Math Games • Story Problem Strategies: Subtract without Regrouping; Subtract with Regrouping • 2-digit Minus 1-digit Numbers with Regrouping • Subtract 2-digit Numbers with Regrouping • Subtract with Regrouping Concept • You Be the Teacher: Subtract with Regrouping	• Subtracting in 10s.pdf: Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90. – Ten-O – Bingo – Subtract Multiples of 10
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.	• Nonstandard Units • Story Problem Strategies; Nonstandard Units	
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.	• Nonstandard Units of Length • Story Problem Strategies: Nonstandard Units of Length • Painting by Number • Problem Solving • Problem Solving Strategies: Make and Use a Picture	• Length Measurement.pdf: Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. – Measures of Me – Measure a Handful – Estimating Length – A Fruit and Vegetable – Measure Up! – Inches/Centimeters Rulers

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Tell and write time.		
1.MD.3 Tell and write time in hours and half-hours using analog and digital clocks.	• Mr. Romano's Secret: A Time Story • How Long is a Minute? • Tell Time to the Hour • Tell Time to the Half-Hour • Compare Minutes to Hours • Story Problem Strategies: Time • Clock Hands	• Hours and Half-hours.pdf: Tell and write time in hours and half-hours using analog and digital clocks. – What Comes After, Before, Or Between? – Make Your Own Clock – Learning to Tell Time – Matching Time – What Numbers are Missing? – What Time Is It? – Time of Day – Clock flashcards
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.	• Venn Diagrams: The Birds, the Beasts, and the Bat • Tally Marks: One More Cat • Problem Solving Strategy: Make a Graph, Make a Table • Graphs • Make a Table • Story Problem Strategies: Graph	• Data Categorization.pdf: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. – Ice Cream Sundae – Make A Real Object Graph – Make a Weather Bar Graph – Weather Flashcards
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¢.)	• Song: Money • Book: Bugs For Sale • Count Quarters, Dimes, Nickels, and Pennies • Quarters • Equivalent Sums of Money	

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
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.	• Song: Corners and Sides • Geoboard	
1.G.2 Compose shapes.	• Space Shapes • Story Problem Strategies: 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.	• Space Shapes • Story Problem Strategies: Space Shapes • Geoboard • Tangrams	
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.”	• Space Shapes • Story Problem Strategies: Space Shapes • Geoboard • Tangrams	
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.	• Book: Halves and Fourths and Thirds • Equal-part Fractions • Label Parts of Fractions • Story Problem Strategies: Equal-part Fraction, Label Parts of Fractions	

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
GRADE 2		
OPERATIONS AND ALGEBRAIC THINKING (2.OA)		
Represent and sole 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.	• Book: Painting by Number • Addition • Subtraction • Problem Solving Strategies: Act Out Addition; Act Out Subtraction • Story Problem Strategies	• Solving one and two step word problems within 100.pdf: Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. – Animal Math – Picture Problems – Act it Out – Guess and Check
Fluently add and subtract within 20.		
2.OA.2 Fluently add and subtract within 20.	• Mental Math Games • Speed Games	• Adding and subtracting within 20.pdf: Fluently add and subtract within 20 using mental strategies. By end of grade 2, know from memory all sums of two one-digit numbers. *Flashcards:* – Addition—horizontal and vertical – Subtraction—horizontal and vertical
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).	• Mental Math Games • Speed Games	• Adding and subtracting within 20.pdf: Fluently add and subtract within 20 using mental strategies. By end of grade 2, know from memory all sums of two one-digit numbers. *Flashcards:* – Addition—horizontal and vertical – Subtraction—horizontal and vertical

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Fluently add and subtract within 20 *continued*.		
2.OA.2b By the end of Grade 2, know from memory all sums of two one-digit numbers.	• Mental Math Games • Speed Games	• Adding and subtracting within 20.pdf: Fluently add and subtract within 20 using mental strategies. By end of grade 2, know from memory all sums of two one-digit numbers. *Flashcards:* – Addition—horizontal and vertical – Subtraction—horizontal and vertical
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.	• Song: Odd Todd and Even Steven	• Odd and even recognition.pdf: Determine whether a group of objects (up to 20) has an odd or even number of members. – Missing Patterns – Counting by 2's – What's My Number?
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.	• Story Problem Strategies: Multiply Using Repeated Addition; Multiply Using Arrays • Multiply Using Repeated Addition • Multiply Using Arrays	
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:	• Song: Place Value • Place Value of 3-digit Numbers	
2.NBT.1a 100 can be thought of as a bundle of ten tens called a "hundred."	• Song: Place Value • Place Value of 3-digit Numbers	• Thinking of 100 as a bundle of ten 10s.pdf: 100 can be thought of as a bundle of ten tens—called a "hundred." – The Kingdom of Popsicle Stick-Filled Purses

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Understand place value *continued*.		
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).	• Song: Place Value • Place Value of 3-digit Numbers	• Grouping hundreds.pdf: The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). – My Three-Digit Numbers
2.NBT.2 Count within 1,000; skip-count by fives, tens, and hundreds.	• Skip Count by 10 • Skip Count by 5 • Skip Counting • Story Problem Strategies: Skip Count • Number Sequences and Patterns Introduction	• Counting within 1000.pdf: Count within 1,000; skip-count by 5s, 10s, and 100s. – Chart Patterns – My 199 Picture – My 200 Picture – My 299 Picture – My 300 Picture – My 399 Picture – My 400 Picture – My 499 Picture – My 500 Picture – My 599 Picture – My 600 Picture – My 699 Picture – My 700 Picture – 900 Chart
2.NBT.3 Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form.	• Problem Solving Strategies (Make a List) • Story Problem Strategies: Sequences; Place Value • Sequences of 2-digit Numbers • Sequences of 3-digit Numbers • Place Value of 3-digit Numbers	
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.	• Story Problem Strategies: Greater Than, Less Than (3-digit Numbers) • Greater Than, Less Than (3-digit Numbers) • Place Value of 3-digit Numbers	• Less than, equal to, or greater than.pdf: Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons. – More or Less – The Hands Have It! – Larger or Smaller? – Comparing Number Cards – Number Cards – <,>, = Cards – Greater Than, Less Than, Equal To

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER 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.	• Mental Math Games • Story Problem Strategies: Add with Regrouping; Subtract with Regrouping • Add with Regrouping • Speed Games • Add 3 Two-digit Numbers with Regrouping • 2-digit Minus 1-digit Numbers with Regrouping • Subtract with Regrouping • You Be the Teacher	• Adding or subtracting within 100.pdf: Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. – Addition Flashcards – Addition of Two-Digit Numbers – Tic Tac Toe – Subtraction of Two-Digit Numbers
2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.	• Add Two-digit Numbers with Regrouping	• Adding four 2-digit numbers.pdf: Add up to four two-digit numbers using strategies based on place value and properties of operations. – Add 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.	• Story Problem Strategies: Add 3 Two-digit with Regrouping; Add 3-digit with Regrouping; Subtract 2-digit with Regrouping; Subtract 3-digit with Regrouping • Subtract 2-digit Numbers with Regrouping • Subtract 3-digit Numbers with Regrouping • Subtract with Regrouping Concept • Add 3 Two-digit Numbers with Regrouping • Add 3-digit Numbers with Regrouping • Place Value	• Add and subtract within 1000.pdf: Add and subtract within 1,000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds. – Choose and Add – Mix and Match Addition – Expanded Subtraction – Subtracting Repeats – 999 – Prediction – Up and Away – Regrouping Treasure Hunt – Play Ball – Squirrel Facts – Number Cards

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Use place value understanding and properties of operations to add and subtract *continued*.		
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.	• Mental Math Games • Speed Games • Skip Count • Story Problem Strategies • Place Value • Number Line	• Mentally adding or subtracting 10 or 100.pdf: Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900. – Spin and Solve (with spinner and numbers cards)
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.	• Addition • Subtraction • Fact Families • Mental Math Games • Speed Games • Skip Count • Subtraction Patterns • Place Value • Number Line • You Be The Teacher	• Explaining addition and subtraction strategies.pdf: Explain why addition and subtraction strategies work, using place value and the properties of operations. – Cube Trails – Race for a Flat – High/Low Number Cube Throw – Lucky Five – Hundreds, Tens, Ones Chart – Numbers Cards
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.	• Song: Measuring Plants • Measurement Tools • Standard Units of Length	• Measurement tools.pdf: Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. – Ready, Set, Measure – Treasure Hunt – Centimeter ruler – Inch Ruler – Let's Measure in Centimeters! – Let's Measure in Inches!
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.	• Length • Standard Units of Length	• Measuring the same object two ways.pdf: Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. – Ready, Set, Measure

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Measure and estimate lengths in standard units *continued*.		
2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.	• Length • Standard Units of Length	• Estimating lengths.pdf: Estimate lengths using units of inches, feet, centimeters, and meters. – Ready, Set, Measure – Treasure Hunt – Let's Measure in Centimeters! – Let's Measure in Inches! – Measuring Perimeter
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.	• Length • Standard Units of Length	
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.	• Story Problem Strategies: Standard Units of Length • Book: Yangshi's Perimeter • Addition • Subtraction	
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.	• Number Line	

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
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.	• 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 • You Be the Teacher	
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?	• Songs: Money; Save Your Pennies • Money • Coin Identification • Coin Value • Make Change • Count Coins • Quarters • Count Dimes, Nickels, and Pennies • Count Quarters, Dimes, Nickels, and Pennies • Count Bills and Coins • Story Problem Strategies: Make Change, Count Coins, Count Bills and Coins • You Be the Teacher: Make Change • Equivalent Sums of Money	• Money word problems.pdf: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. – Supermarket Hunt – Shopping for My Family – Money Combinations – Money Sums – Pizza Parlor – How Much Back? – Coin Count – Bills and Coins – Let's Count Coins – Money Addition – Change is Good! – Make 45¢
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.		• Generating measurement data.pdf: 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. – Measuring Inches – Ready, Set, Measure – Let's Measure in Centimeters! – Let's Measure in Inches!

UTAH STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Represent and interpret data *continued*.		
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.	• Book: The Boonville Nine • Graphing • Picture Graphs • Bar Graphs • Use Graphs and Tables • Story Problem Strategies: Picture Graphs, Bar 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.	• Songs: Shapes, Shapes, Shapes; Corners and Sides; Kites • Space Shapes • World Shapes • The Shape of Things book • Story Problem Strategies: Space Shapes • Geoboard	
2.G.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of squares.	• Story Problem Strategies: Fractions of Regions, Fractions of Groups • You Be the Teacher: Fractions of Regions • Fractions	
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.	• Song: Fractions • Books: The Fraction Twins; Halves, and Fourths and Thirds • Fractions • Halves and Fourths and Thirds • Label Parts of Fractions • Story Problem Strategies: Label Parts of Fractions • Geoboard Extension • Fractions of Regions • Fractions of Groups • Story Problem Strategies: Fractions of Regions, Fractions of Groups • You Be the Teacher: Fractions of Regions, Fractions of Groups	

WATERFORD *Books and Related Activities*

PRE-MATH & SCIENCE

Math Books

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

Science Books

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

Counting Songs

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

Number Songs

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

BASIC MATH & SCIENCE

Math & Science Books

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

FLUENT MATH & SCIENCE

Math & Science Books

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

ALBUMS

Beginning Math Songs: Volume 1

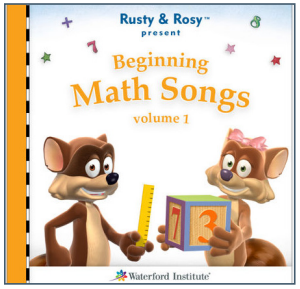
Odd Todd and Even Steven; Salsa Counting; On the Bayou—Addition; Subtract Those Cars; More Than, Fewer Than; A Nice Addition; Marching Band Counting; Doubles 1–5; Multiply by 0

Nursery Songs and Rhymes

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

Beginning Reading Songs

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



Download these albums and more at iTunes. Search for "Waterford's Rusty & Rosy and Friends."

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

MY BACKPACK APP

Mental Math
Read-Alongs
Traditional Tales
Sing-Along Songs
Nursery Rhymes