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CURRICULUM Correlation

Waterford Reading Academy:

Math & Science

100%

Iowa CORE
Mathematics
2012 and Science
2015

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

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IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
	MATHEMATICS	
KINDERGARTEN		
Counting and Cardinality K.CC		
Know number names and count the	e sequence. K.CC.A	
K.CC.A.1 Count to 100 by ones and by tens. (K.CC.A.1) (DOK 1)	 Number Songs Counting Songs Number Counting Number Instruction Skip Counting Counting Puzzle 	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.A.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1). (K.CC.A.2) (DOK 1,2)	Count OnCounting SongsCounting PuzzleDot-to-Dot	 Count 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.A.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects). (K.CC.A.3) (DOK 1)	 Math Books Counting Songs Number Songs Number Counting Number Instruction Counting Puzzle 	 Write numbers 0-20.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





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Count to tell the number of objects	s. K.CC.B	
K.CC.B.4 Understand the relationship between numbers and quantities; connect counting to cardinality. K.CC.B.4.A 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.	 Counting Songs Number Songs Number Counting Order Numbers One-to-one Correspondence Make and Count Groups Number Instruction Counting Puzzle Dot-to-Dot 	 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.B.4.B 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.	 Make and Count Groups Number Counting Number Instruction Match Numbers One-to-One Correspondence 	 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
K.CC.4.C Understand that each successive number name refers to a quantity that is one larger. (K.CC.B.4) (DOK 2)	 Make and Count Groups Number Counting Match Numbers One-to-One Correspondence Order Numbers Count On by 1 	 Object Counting Succession.pdf: Understand that each successive number name refers to a quantity that is one larger. One by One
K.CC.B.5 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. K.CC.B.5) (DOK 2)	 Counting Songs Number Songs Make and Count Groups Number Counting Number Instruction Numbers Review Match Numbers Bug Bits 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





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Compare numbers. K.CC.C		
K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (K.CC.C.6) (DOK 2)	 Song: Greater Than, Less Than Book: For the Birds Greater Than, Less Than More Than, Fewer Than More Than Fewer Than Make and Count Groups 	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? Fewer Than More or Fewer Greater or Less More Than/Fewer Than Flashcard Sets
K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals. (K.CC.C.7) (DOK 1,2)	 Book: For the Birds Greater Than, Less Than More Than, Fewer Than More Than Fewer Than 	 Compare two 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 tog	ether and adding to, and understand subtraction as t	aking apart and taking from. (K.OA.A)
K.OA.A.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. (K.OA.A.1) (DOK 2)	 Songs: Addition; On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction Book: Five Delicious Muffins Make and Count Groups Add Groups Subtract Groups Act Out Addition Act Out Subtraction 	 Represent addition and subtraction with objects. pdf: Represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations. Addition Cubes Addition Stories Going Fishing Let's Count On Act it out Stories Manipulative Stories





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Understand addition as putting tog	ether and adding to, and understand subtraction as ta	aking apart and taking from. (K.OA.A) continued
K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. (K.OA.A.2) (DOK 2)	 Songs: Addition; 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 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. Additions Stories Act It Out Stories Manipulative Stories Edible Stories One, Two, Three, Show Circus Subtraction Partner Subtraction Farmer's Market Green and Speckled Frogs Cars and Trucks Subtraction Yummy Subtraction Act Out Addition Act Out Subtraction Addition Newsletter Subtraction Newsletter Subtraction Flashcards
K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1). (K.OA.A.3) (DOK 2,3)	 Make and Count Groups Add Groups Subtract Groups Act Out Subtraction Subtract Doubles 	 Decompose numbers.pdf: Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation. Addition Cubes Fact Families
K.OA.A.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. (K.OA.A.4) (DOK 2)	Make 10Missing AddendsCount OnAct Out Addition	 Numbers that make 10.pdf: For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. How Many More?





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Understand addition as putting to	gether and adding to, and understand subtraction as t	aking apart and taking from. (K.OA.A) continued
K.OA.A.5 Fluently add and subtract within 5. (K.OA.A.5) (DOK 1)	 Songs: Addition; 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 	
Number and Operations In Base Te	en K.NBT	
Work with numbers 11-19 to gain for	oundations for place value. (K.NBT.A)	
K.NBT.A.1 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 (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones (K.NBT.A.1) (DOK 2)	Place Value	 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
Measurement and Data K.MD		
Describe and compare measurable	e attributes. (K.MD.A)	
K.MD.A.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. (K.MD.A.1) (DOK 2)	Song: Measuring PlantsLength	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





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Describe and compare measurable	attributes. (K.MD.A) continued	
K.MD.A.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 heights of two children and describe one child as taller/shorter. (K.MD.A.2) (DOK 2)	 Songs: Savanna Size, Measuring Plants Capacity Length Order Size Big and Little Tall and Short Heavy and Light Size Match 	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 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 num	ber of objects in each category. (K.MD.B)	
K.MD.B.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (K.MD.B.3.) (DOK 1,2)	 Songs: Same and Different; All Sorts of Laundry Book: Buttons, Buttons Match Sort Make and Count Groups 	 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





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Geometry K.G		
Identify and describe shapes (squa	res, circles, triangles, rectangles, hexagons, cubes, co	nes, cylinders, and spheres). (K.G.A)
K.G.A.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. (K.G.A.1) (DOK 1,2)	 Songs: Positioning; Kites; Get Over the Bugs; Shapes, Shapes, Shapes; Up in the Air Books: The Shape of Things; Imagination Shapes Position Over, Under, Above, Below Inside, Outside, Between Circle, Square, Triangle, Rectangle Star, Semicircle, Octagon, Oval, Diamond Simple Shapes Solid Shapes World Shapes Above, Below, Next to, On 	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
K.G.A.2 Correctly name shapes regardless of their orientations or overall size. (K.G.A.2) (DOK 1)	 Songs: Kites; Shapes, Shapes, Shapes; Up in the Air Books: The Shape of Things; Imagination Shapes Circle, Square, Triangle, Rectangle Star, Semicircle, Octagon, Oval, Diamond Simple Shapes Solid Shapes World Shapes 	 Shape recognition.pdf: Correctly name shapes regardless of their orientations or overall size. Shapes Scavenger Hunt Shapes and Positioning Shapes Flashcards
K.G.A.3 Identify shapes as two- dimensional (lying in a plane, "flat") or three-dimensional ("solid"). (K.G.A.3) (DOK 1)	Solid ShapesSpace ShapesSimple Shapes	 Two-dimensional shapes.pdf: Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid"). Shapes and Positioning
Analyze, compare, create, and com	pose shapes. (K.G.B)	
K.G.B.4 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length). (K.G.B.4) (DOK 2,3)	 Song: Corners and Sides Simple Shapes Solid Shapes Space Shapes Congruence Tangrams Similar Figures 	 Compare shapes.pdf: Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length). Comparing Shapes





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Analyze, compare, create, and com	pose shapes. (K.G.B) <i>continued</i>	
K.G.B.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. (K.G.B.5) (DOK 2,3)	Geoboard Tangrams	 Model shapes.pdf: Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. Building Shapes
K.G.B.6 Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?" (K.G.B.6) (DOK 2,3)	Geoboard Tangrams	 Form larger shapes.pdf: Compose simple shapes to form larger shapes. Combining Shapes
GRADE 1		
Operations and Algebraic Thinking	1.OA	
Represent and solve problems invo	lving addition and subtraction. (1.OA.A)	
1.OA.A.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, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. (1.OA.A.1) (DOK 2)	 Songs: Fact Families; Doubles Book: Facts About Families Addition and Subtraction Fact Families Addition and Subtraction Relationship Doubles Subtract Doubles Story Problem Strategies 	 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.A.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. (1.OA.A.2) (DOK 2)	Act Out AdditionAct Out SubtractionStory Problem Strategies	 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





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Understand and apply properties o	f operations and the relationship between addition an	d subtraction. (1.OA.B)
1.OA.B.3 Apply properties of operations as strategies to add and subtract. Examples: 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.) (1.OA.B.3) (DOK 2)	 Addition and Subtraction Relationship Addition and Subtraction Fact Families Subtraction Patterns Commutative Property of Addition 	 Strategies to add and subtract.pdf: Apply properties of operations as strategies to add and subtract. Adding and Subtracting Bugs Concentration Related Facts
1.OA.B.4 Understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8. (1.OA.B.4) (DOK 2)	Missing AddendsSubtraction PatternsAddition and Subtraction Fact FamiliesMissing Addends	 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.
Add and subtract within 20. (1.OA.0		
1.OA.C.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). (1.OA.C.5) (DOK 1,2)	 Song: Counting On Books: Circus 20; Painting by Number; Jump Rope Rhymes Skip Count by 2 Count On Make and Count Groups Add Groups Subtract Groups 	 Relate counting to addition and subtraction.pdf: Relate counting to addition and subtraction. Skip Counting Chant Jump Rope Counting Related Facts Count by 2s; 5s; 10s



IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Add and subtract within 20. (1.OA.C	C) continued	
1.OA.C.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 - 4 = 13 - 3 - 1 = 10 - 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 - 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13). (1.OA.C.6) (DOK 1,2)	 Songs: Fact Families; Counting On Books: Facts about Families; Circus 20; Painting by Number Addition and Subtraction Fact Families Addition Sentences Subtraction Sentences Commutative Property of Addition Addition and Subtraction Relationship Missing Addends Missing Minuends and Subtrahends Add 3 One-digit Numbers Subtraction Patterns 	 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; _ 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; to 20 Add and Subtract Doubles to 10; Doubles to 20 Sets of flashcards: Addition—horizontal; vertical Subtraction—horizontal; vertical
Work with addition and subtraction	equations. (1.OA.D)	
1.OA.D.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$. (1.OA.D.7) (DOK 3)	 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 	 Equal sign.pdf: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. Show Me! Tricky Total Domino Addition Domino Subtraction Playground Fact Snake





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Work with addition and subtraction	n equations. (1.0A.D) continued	
1.OA.D.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 = ?. (1.OA.D.8) (DOK 2)	 Addition Sentences Subtraction Sentences Addition and Subtraction Fact Families Missing Addends Missing Minuends and Subtrahends 	
Number and Operations in Base Te	n 1.NBT	
Extend the counting sequence. (1.N	IBT.A)	
1.NBT.A.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. (1.NBT.A.1) (DOK 1,2)	 Song: Counting On Books: Painting by Number; Circus 20; Hooray, Hooray for the One Hundredth Day! Count On 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; 30-39; 40-49; 50-59; 60-69 Counting to 89 Counting Charts: I Can Count to 50; 100; 99; 120
Understand place value. (1.NBT.B)		
1.NBT.B.2 Understand that the two digits of a two-digit number represents amounts of tens and ones. Understand the following as special cases: 1.NBT.B.2.A 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 	 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.B.2.B 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 Place Value of 2-digit Numbers Expanded Notation Add with Manipulatives 	 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





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Understand place value. (1.NBT.B)	continued	
1.NBT.B.2.C 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). (1.NBT.B.2) (DOK 2)	Expanded NotationPlace ValuePlace Value of 2-digit Numbers	 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.B.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. (1.NBT.B.3) (DOK 2)	 Place Value Greater Than, Less Than (2-digit Numbers) 	 Compare two-digit numbers.pdf: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. More or Less Spinner Catch Me if You Can! What Are You Looking For? Two-Pile Sort
Use place value understanding and	properties of operations to add and subtract. (1.NBT.	
1.NBT.C.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 and tens, ones and ones; and sometimes it is necessary to compose a ten. (1.NBT.C.4) (DOK 1,2,3)	 Addition Add Tens Doubles Doubles Plus 1 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 Add 2-digit Numbers with Regrouping 	 Adding within 100.pdf: The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). 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





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Use place value understanding and	properties of operations to add and subtract. (1.NB	T.C) continued
1.NBT.C.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. (1.NBT.C.5) (DOK 2,3)	 Song: Skip Counting Book: Navajo Beads Add Subtract Add Tens Subtract Tens Skip Count by 10 Number Chart 	 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
1.NBT.C.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. (1.NBT.C.6) (DOK 2,3)	 Subtraction Subtract Tens Subtraction Patterns Subtract Place Value Addition and Subtraction Relationship Use Manipulatives 	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





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Measurement and Data 1.MD		
Measure lengths indirectly and by i	terating length units. (1.MD.A)	
1.MD.A.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object. (1.MD.A.1) (DOK 2,3)	 Length Nonstandard Units of Length 	 Order by length.pdf: Order three objects by length; compare the lengths of two objects indirectly by using a third object. Estimating Length A Fruit and Vegetable Measure
1.MD.A.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. (1.MD.A.2) (DOK 1,2)	Length Nonstandard Units of Length	 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
Tell and write time. (1.MD.B)		
1.MD.B.3 Tell and write time in hours and half-hours using analog and digital clocks. (1.MD.B.3) (DOK 1)	 Song: Clock Hands Books: Mr. Romano's Secret: A Time Story; How Long Is a Minute? Tell Time to the Hour Tell Time to the Half-Hour Compare Minutes to Hours 	 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





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Represent and interpret data. (1.MD	O.C)	
1.MD.C.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. (1.MD.C.4) (DOK 2,3)	 Songs: Tallying; Graphing Books: Painting by Number; One More Cat Tally Marks Graphs Make a Table 	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 Our Favorite Foods Make a Graph Make a table How Many? Bugs! Use Graphs and Tables How Big is Your Family?
Geometry 1.G		
Reason with shapes and their attrib	outes. (1.G.A)	
1.G.A.1 Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. (1.G.A.1) (DOK 2)	Songs: Corners and Sides; KitesGeoboardSpace Shapes	 Attributes.pdf: Distinguish between defining attributes versus non-defining attributes; build and draw shapes to possess defining attributes. Sorting Shapes
1.G.A.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or 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. (1.G.A.2) (DOK 2,3)	Song: KitesSpace ShapesGeoboardTangrams	





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Reason with shapes and their attrik	outes. (1.G.A) continued	
1.G.A.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 of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares. (1.G.A.3)(DOK 1,2)	 Song: Fractions Book: Halves and Fourths and Thirds Equal-part Fractions Label Parts of Fractions 	 Equal shares.pdf: Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares. Make It Equal Fraction Friends Fraction Train Halves, Thirds, Fourths Equal Parts
GRADE 2		
Operations and Algebraic Thinking	2.OA	
Represent and solve problems invo	lving addition and subtraction. (2.OA.A)	
2.OA.A.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, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. 2.OA.A.1) (DOK 2)	 Book: Painting by Number Addition Subtraction Problem Solving Strategies Story Problem Strategies Missing Addends and Subtrahends Subtraction Sentences Addition and Subtraction Facts 	 One- and two-step word problems within 100. pdf: Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Add and subtract within 20.		
2.OA.B.2 Fluently add and subtract within 20 using mental strategies. By end of grade 2, know from memory all sums of two one-digit numbers. (2.OA.B.2) (DOK 1)	 Songs: Fact Families; Doubles Subtraction Patterns Addition Facts to 2 	 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; _ and 6-10 Order Property of Addition Add Doubles +1 to 11 Add Doubles to 20 Add Doubles to 20 Subtract _ from Subtract Subtract on Patterns Fact Families to 10; to 20 Add and Subtract Doubles to 10; Doubles to 20
	to gain foundations for multiplication. (2.OA.C)	
2.OA.C.3 Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends. (2.OA.C.3) (DOK 2)	Song: Odd Todd and Even StevenSkip Count by 2Addition Facts	 Odd and even recognition.pdf: Determine whether a group of objects (up to 20) has an odd or even numbe of members. Missing Patterns Counting by 2s What's My Number?





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Work with equal groups of objects	to gain foundations for multiplication. (2.OA.C) contin	ued
2.OA.C.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. (2.OA.C.4) (DOK 2)	 Addition Multiply Using Repeated Addition Multiply Using Arrays 	
Numbers and Operations In Base T	en 2.NBT	
Understand place value. (2.NBT.A)		
2.NBT.A.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: 2.NBT.1.A 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
2.NBT.1.B 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). (2.NBT.A.1) (DOK 2)	Song: Place ValuePlace Value of 3-digit Numbers	 Grouping hundreds: 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.A.2 Count within 1000; skip- count by 5s, 10s, and 100s. (2.NBT.A.2) (DOK 1)	 Song: Skip Counting Skip Count Skip Count by 10 Skip Count by 5 Number Sequences and Patterns 	 Counting within 1000.pdf: Count within 1,000; skip-count by 5s, 10s, and 100s. Chart Patterns My 199 Picture; 200 Picture; 299 Picture; 300 Picture; 399 Picture; 400 Picture; 499 Picture; 500 Picture; 599 Picture; 600 Picture; 699 Picture; 700 Picture 900 Chart
2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. (2.NBT.A.3) (DOK 1,2)	 Sequences of 2-digit Numbers Sequences of 3-digit Numbers Number Chart Place Value 	 Read and write numbers to 1000.pdf: Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. Cube Trails Race for a Flat High/Low Number Cube Throw Lucky Five





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Understand place value. (2.NBT.A)	continued	
2.NBT.A.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. (2.NBT.A.4) (DOK 2)	 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
Use place value understanding and	d properties of operations to add and subtract. (2.N	IBT.B)
2.NBT.B.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction (2.NBT.B.5) (DOK 1,2)	 Place Value Addition and Subtraction Relationship Commutative Properties of Addition Addition Subtraction Add without Regrouping Add with Regrouping Subtract without regrouping Subtract with Regrouping Subtract with Regrouping 	 Add and subtract 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 of Two-Digit Numbers Tic Tac Toe Subtraction of Two-Digit Numbers
2.NBT.B.6 Add up to four two-digit numbers using strategies based on place value and properties of operations. (2.NBT.B.6) (DOK 2)	Add Two-digit Numbers with RegroupingCommutative Properties of AdditionPlace Value	 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





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Use place value understanding and	properties of operations to add and subtract. (2.NBT	.B) continued
2.NBT.B.7 Add and subtract within 1000, 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. (2.NBT.B.7) (DOK 2)	 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 	 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
2.NBT.B.8 Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900. (2.NBT.B.8) (DOK 2)	Skip CountPlace ValueNumber ChartNumber Patterns	 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.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. (2.NBT.B.9) (DOK 3)	 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 	





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Measurement and Data 2.MD		
Measure and estimate lengths in st	andard units. (2.MD.A)	
2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. (2.MD.A.1) (DOK 1)	 Song: Measuring Plants Book: Birds at My House Length 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.A.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. (2.MD.A.2) (DOK 2,3)	LengthStandard Units of LengthMeasurement Tools	 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
2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters. (2.MD.A.3) (DOK 2)	 Song: Measuring Plants Length Standard Units of Length Measurement Tools 	 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.A.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. (2.MD.A.4) (DOK 1,2)	Length Standard Units of Length	 Measure length.pdf: Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. Ready, Set, Measure Treasure Hunt





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Relate addition and subtraction to	length. (2.MD.B)	
2.MD.B.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem. (2.MD.B.5)(DOK 2)	 Book: Yangshi's Perimeter Story Problem Strategies Addition Subtraction Length Standard Units of Length 	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 Color the Chart Think About it Differently Act it Out Guess and Check
2.MD.B.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,, and represent wholenumber sums and differences within 100 on a number line diagram. (2.MD.B.6) (DOK 1,2)	Number LineLength	
Work with time and money. (2.MD.	C)	
2.MD.C.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. (2.MD.C.7) (DOK 1)	 Songs: Telling Time; Clock Hands Tell Time Tell Time to Five Minutes Tell Time to the Quarter Hour Tell Time to the Minute Tell Time to the Hour Tell Time to the Half-hour 	 Tell and write time.pdf: Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. Matching Clocks Cartoon Captions Time to 5 Minutes





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Work with time and money. (2.MD.0	C) continued	
IA.1. Describe the relationship among standard units of time: minutes, hours, days, weeks, months and years. (2.MD.C.IA.1) (DOK 2,3)	 Songs: Telling Time; Clock Hands Books: Mr. Romano's Secret: A Time Story; How Long Is a Minute? 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 Hour Compare Minutes to Hours Days of the Week Days in a Month 	
2.MD.C.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have? (2.MD.C.8) (DOK 2)	 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 	 Solve 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¢





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES	
Represent and interpret data. (2.M	Represent and interpret data. (2.MD.D)		
2.MD.D.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. (2.MD.D.9) (DOK 2)		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!	
IA.2 Use interviews, surveys, and observations to collect data that answer questions about students' interests and/or their environment. (2.MD.D.IA.2) (DOK 2,3)	 Song: Graphing Graphing Bar Graphs Picture Graphs Use Graphs and Tables 	 Graphs.pdf: Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. Questions and Answers Library Book Survey Playground Survey Rock Collections Use Graphs and Tables 	
2.MD.D.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 compare problems using information presented in a bar graph. (2.MD.D.10) (DOK 2)	 Song: Graphing Graphing Bar Graphs Picture Graphs Use Graphs and Tables 	Graphs.pdf: Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. Guestions and Answers Library Book Survey Playground Survey Rock Collections Use Graphs and Tables	





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Geometry 2.G		
Reason with shapes and their attrik	outes. (2.G.A)	
2.G.A.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. (2.G.A.1) (DOK 1,2)	 Song: Kites Geoboard Songs: Shapes, Shapes; Corners and Sides Book: The Shape of Things Space Shapes World Shapes 	 Draw shapes.pdf: Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. Making Shapes Shapes Review
2.G.A.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. (2.G.A.2) (DOK 2)	Song: FractionsFractions of RegionsYou Be the Teacher	
2.G.A.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, four fourths. Recognize that equal shares of identical wholes need not have the same shape. (2.G.A.3) (DOK 2,3)	 Song: Fractions Books: Halves and Fourths and Thirds; The Fraction Twins Fractions Label Parts of Fractions Geoboard Fractions of Regions Fractions of Groups You Be the Teacher 	 Fractions.pdf: Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. Frenzied Fraction Fun Fabulous Fractions





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
	SCIENCE	
KINDERGARTEN		
K-PS2 Motion and Stability: Forces	and Interactions	
K-PS2-1 Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.	Song: Push and PullBook: Mr. Mario's NeighborhoodPush and Pull	Learning Together: How It Works
K-PS2-2 Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.	Song: Push and Pull Push and Pull	
K-PS3 Energy		
K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface.	Songs: Water; Plants Are Growing; Sun BluesSunWater	
K-PS3-2. Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.	Waterford encourages everyone to have writing, drawing, and art materials available for children's creations.	
K-LS1 From Molecules to Organisms: Structures and Processes		
K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.	Song: WaterBook: Mela's Water PotSunPlantsWater	 More to Explore Experiment: Water for Plants Learning Together: Green and Growing





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
K-ESS2 Earth's Systems		
K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.	 Song: Seasons Book: That's What I Like: A Book About Seasons Calendar/Graph Weather Weather Patterns Clouds Spring Summer Fall Winter 	 Learning Together: Weather; The Weather Around Us Weather Cards
K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.	Books: Winter Snoozers; Birds at my House; The Old Maple Tree	
K-ESS3 Earth and Human Activity		
K-ESS3-1. Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.	 Song: Four Ecosystems Book: Where in the World Would You Go Today? Oceans Mountains Deserts Rainforests 	Learning Together: Our Earth
K-ESS3-2. Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.	Songs: Precipitation; StormsBook: Whatever the WeatherWeather ToolsCalendar/Graph Weather	
K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.	 Songs: Conservation; Pollution Rap Pollution and Recycling Care of Water Care of Earth 	 More to Explore Experiment: Recycling Learning Together: Our Earth





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
K-2-ETS1 Engineering Design		
K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.	 Song: Inventing Books: Inventions All Around; I Want to Be a Scientist Like Wilbur and Orville Wright Inventions 	More to Explore Experiment: Recycling; Simple Machines
K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.	Waterford encourages everyone to have writing, drawing, and art materials available for children's creations. • Book: How Did the Chicken Cross the Road? • Simple Machines	
K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	Book: Warm Soup for DedushkaHeat MovementMovement of HeatHeat Experiment	More to Explore Experiment: Evaporation
GRADE 1		
1-PS4 Waves and Their Application	s in Technologies for Information Transfer	
1-PS4-1. Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.	Song: SoundBook: What Sounds SaySound Waves	More to Explore Experiment: Sound
1-PS4-2. Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated.	Book: Lightning Bugs	
1-PS4-3. Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light.	 Book: My Family Campout Light Properties Properties of Light 	





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
1-PS4 Waves and Their Application	s in Technologies for Information Transfer continued	
1-PS4-4. Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.	 Song: Inventing Books: I Want to Be a Scientist Like Thomas Edison; Inventions All Around 	
1-LS1 From Molecules to Organisms	s: Structures and Processes	
1-LS1-1. Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.	 Books: I Wish I Had Ears Like a Bat; Animal Bodies; Fawn Eyes Deserts 	
1-LS1-2. Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.	Song: Animal BodiesAnimal BehaviorAnimal Bodies	
1-LS3 Heredity: Inheritance and Va	riation of Traits	
1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.	Books: George and Jack; A Seed GrowsBuild Knowledge: Mine	More to Explore Experiment: Traits
1-ESS1 Earth's Place in the Universe		
1-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted.	 Songs: The Moon; Sun Blues Books: Moon Song; Star Pictures; My Family Campout Sun Moon Constellations 	 More to Explore Experiment: The Moon Learning Together: The Sky Above Us
1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.	SunSpringSummerFallWinter	





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
K-2-ETS1 Engineering Design		
K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.	 Song: Inventing Books: Inventions All Around; I Want to Be a Scientist Like Wilbur and Orville Wright Inventions 	More to Explore Experiment: Recycling; Simple Machines
K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.	Waterford encourages everyone to have writing, drawing, and art materials available for children's creations. • Book: How Did the Chicken Cross the Road? • Simple Machines	
K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	Book: Warm Soup for DedushkaHeat MovementMovement of HeatHeat Experiment	More to Explore Experiment: Evaporation
GRADE 2		
2-PS1 Matter and Its Interactions		
2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.	 Book: Warm Soup for Dedushka Changes in Matter Movement of Heat States of Water Materials 	
2-PS1-2. Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.	 Book: Warm Soup for Dedushka Heat Movement Movement of Heat Heat Experiment 	
2-PS1-3. Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.	GeoboardTangrams	





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
2-PS1 Matter and Its Interactions co	ontinued	
2-PS1-4. Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.	Book: Warm Soup for DedushkaChanges in MatterMovement of Heat	
2-LS2 Ecosystems: Interactions, En	ergy, and Dynamics	
2-LS2-1. Plan and conduct an investigation to determine if plants need sunlight and water to grow.	Song: Plants Are GrowingSunWater	More to Explore Experiment: Light for Plants
2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.	Waterford encourages everyone to have writing, drawing, and art materials available for children's creations.	
2-LS4 Biological Evolution: Unity a	nd Diversity	
2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.	 Songs: Animal Bodies; Four Ecosystems Books: Animal Bodies; Where in the World Would You Go Today? Ecosystems Animal Bodies Animal Behavior 	Learning Together: Places on Earth
2-ESS1 Earth's Place in the Universe		
2-ESS1-1. Use information from several sources to provide evidence that Earth events can occur quickly or slowly.	 Songs: The Four Seasons; Rock Cycle Books: That's What I Like: A Book About Seasons; Whatever the Weather; Fossils Under Our Feet Rock Cycle Fossils Spring Summer Fall Winter Water 	More to Explore Experiment: Rocks
2-ESS2 Earth's Systems		
2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.	Waterford encourages everyone to have writing, drawing, and art materials available for children's creations.	





IOWA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
2-ESS2 Earth's Systems continued		
2-ESS2-2. Develop a model to represent the shapes and kinds of land and bodies of water in an area.	 Songs: Water; Precipitation; Water is All Around Water Sources Water Water Cycle Care of Water Oceans 	
2-ESS2-3. Obtain information to identify where water is found on Earth and that it can be solid or liquid.	 Songs: Water; Uses of Water; Precipitation; Water is All Around Water Sources Water Water Cycle Care of Water States of Water Heat Changes Water 	
K-2-ETS1 Engineering Design		
K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.	 Song: Inventing Books: Inventions All Around; I Want to Be a Scientist Like Wilbur and Orville Wright Inventions 	More to Explore Experiment: Recycling; Simple Machines
K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.	Waterford encourages everyone to have writing, drawing, and art materials available for children's creations. • Book: How Did the Chicken Cross the Road? • Simple Machines	
K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	 Book: Warm Soup for Dedushka Heat Movement Movement of Heat Heat Experiment 	More to Explore Experiment: Evaporation

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

SUPPORT



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

CONTINUAL DEVELOPMENT

As a nonprofit research institute, <u>Waterford.org</u> is continually developing resources with the latest research findings. Please note that this correlation is accurate as of the date on the cover.

WATERFORD Family Engagement Resources



SPANISH FAMILY ENGAGEMENT RESOURCES

All Waterford books and many of the resources available to families at mentor.waterford.org can be found in Spanish or with Spanish support.

SONGS

Beginning Math Songs

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

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

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)

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.

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