

CURRICULUM *Correlation*

*Waterford Reading
Academy:
Math & Science*

100%

*North Dakota
Mathematics
Content
Standards 2023
& Science 2019*

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

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NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
MATHEMATICS		
KINDERGARTEN		
Number and Operations (NO) Learners will a develop foundational understanding of the number system, operations, and computational fluency to create connections and solve problems within and across concepts.		
Counting and Cardinality (CC) Learners will understand the relationship between numerical symbols, names, quantities, and counting sequences.		
K.NO.CC.1 Count verbally in sequential order by ones and tens to 100, making accurate decuple transitions (e.g., 89 to 90). Count verbally forward from any given number within 100.	<ul style="list-style-type: none"> • Number Songs • Counting Songs • Number Counting • Counting On • Number Instruction • Skip Counting 	<ul style="list-style-type: none"> • Count to 100 by ones and tens.pdf: Count to 100 by ones and tens. <ul style="list-style-type: none"> - 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 • Count forward.pdf: Count forward beginning with a given number within the known sequence. <ul style="list-style-type: none"> - Let's Count On - Toss and Count - Count On by 1
K.NO.CC.2 Count backward from 20 by ones and from a given number within 10.	<ul style="list-style-type: none"> • Song: Counting Backward • Book: A Space Adventure • Counting Back • Count Down 	
K.NO.CC.3 Identify and write any given numeral within 20.	<ul style="list-style-type: none"> • Math Books • Counting Songs • Number Songs • Number Counting • Number Instruction 	<ul style="list-style-type: none"> • Write numbers 0-20.pdf: Write numbers from 0 to 20. Represent a number of objects with a written numeral. <ul style="list-style-type: none"> - Numbers Practice - Numbers - Add groups - Count on by 1 - Number Writing Practice

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Counting and Cardinality (CC) Learners will understand the relationship between numerical symbols, names, quantities, and counting sequences <i>continued</i> .		
K.NO.CC.4 Recognize and verbally label arrangements, without counting, for briefly shown collections up to 10 (e.g., “I saw 5.” How do you know?” “I saw 3 and 2, that is 5.”).	<ul style="list-style-type: none"> • Moving Target (Dots) • Make and Count Groups 	
K.NO.CC.5 Count and tell how many objects up to 20 are in an arranged pattern or up to 10 objects in a scattered configuration. Represent a quantity of up to 20 with a numeral.	<ul style="list-style-type: none"> • Counting Songs • Number Songs • Make and Count Groups • Number Counting • Number Instruction • Numbers Review • One-to-one Correspondence 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Hoop Addition
Base Ten (NBT) Learners will understand the place value structure of the base-ten number system and represent, compare, and perform operations with multi-digit whole numbers and decimals.		
K.NO.NBT.1 Compose and decompose numbers from 11 to 19 using a group of ten ones and some more ones using a model, drawing, or equation.	<ul style="list-style-type: none"> • Place Value 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Place Value 11-19
K.NO.NBT.2 Compare two numbers between 1 and 20 using words greater than, less than, or equal to.	<ul style="list-style-type: none"> • Song: Greater Than, Less Than • Book: For the Birds • Greater Than, Less Than • More Than, Fewer Than • More Than • Fewer Than 	<ul style="list-style-type: none"> • Compare two numbers.pdf: Compare two numbers between 1 and 10 presented as written numerals. <ul style="list-style-type: none"> - More or Less Spinner - Catch Me If You Can! - Greater or Less - Less or Greater
Fractions (NF) Learners will understand fractions and equivalency to represent, compare, and perform operations of fractions and decimals.		
NOTE: Standards begin at first grade.		

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<p>Algebraic Reasoning (AR) Learners will look for, generate, and make sense of patterns, relationships, and algebraic symbols to represent mathematical models while adopting approaches and solutions in novel situations.</p>		
<p>Operations and Algebraic Thinking (OA) Learners will analyze patterns and relationships to generate and interpret numerical expressions.</p>		
<p>K.AR.OA.1 Automatically add and subtract within 5.</p>	<ul style="list-style-type: none"> • Songs: On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction • Book: Five Delicious Muffins • Add Groups • Subtract Groups • Minuends • Sums • Act Out Addition • Act Out Subtraction 	
<p>K.AR.OA.2 For any number from 1 to 9, find the number that makes 10 when added to the given number, sharing the answer with a model, drawing, or equation.</p>	<ul style="list-style-type: none"> • Make 10 • Missing Addends • Count On • Act Out Addition 	<ul style="list-style-type: none"> • Numbers that make 10.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. <ul style="list-style-type: none"> - How Many More?
<p>K.AR.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way using verbal explanations, objects, or drawings.</p>	<ul style="list-style-type: none"> • Make and Count Groups • Add Groups • Subtract Groups • Act Out Subtraction • Make 10 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Addition Cubes - Fact Families

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<p>Operations and Algebraic Thinking (OA) Learners will analyze patterns and relationships to generate and interpret numerical expressions <i>continued</i>.</p>		
<p>K.AR.OA.4 Solve authentic problems with addition by putting together or adding to within 10.</p>	<ul style="list-style-type: none"> • Songs: On the Bayou; Pirates Can Add • Add Groups • Sums • Act Out Addition 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - 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
<p>K.AR.OA.5 Solve authentic problems with subtraction by taking apart or taking from within 10.</p>	<ul style="list-style-type: none"> • Songs: Bakery Subtraction; Subtract Those Cars; Circus Subtraction • Book: Five Delicious Muffins • Subtract Groups • Minuends • Act Out Subtraction 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - 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

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Operations and Algebraic Thinking (OA) Learners will analyze patterns and relationships to generate and interpret numerical expressions <i>continued</i> .		
K.AR.OA.6 Recognize, duplicate, complete, and extend repeating patterns in a variety of contexts (e.g., shape, color, size, objects, sounds, movements).	<ul style="list-style-type: none"> • Song: Train Station Patterns • Patterns • Pattern: AB; ABB; ABC 	
Geometry and Measurement (GM) Learners will use visualization, spatial reasoning, geometric modeling, and measurement to investigate the characteristics of figures, perform transformations, and construct logical arguments.		
Geometry (G) Learners will compose and classify figures and shapes based on attributes and properties; represent and solve problems using a coordinate plane.		
K.GM.G.1 Name shapes and identify them as two-dimensional (squares, circles, triangles, rectangles) regardless of their orientations or overall sizes.	<ul style="list-style-type: none"> • Songs: Marmot Shapes; Shapes, Shapes, Shapes • Books: The Shape of Things; Imagination Shapes • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Rhombus • Simple Shapes 	<ul style="list-style-type: none"> • Shape recognition.pdf: Correctly name shapes regardless of their orientations or overall size. <ul style="list-style-type: none"> - Shapes Scavenger Hunt - Shapes and Positioning
K.GM.G.2 Name shapes and identify them as three-dimensional (cubes and spheres) regardless of their orientations or overall sizes.	<ul style="list-style-type: none"> • Song: Kites • Space Shapes • Geoboard • Tangrams 	<ul style="list-style-type: none"> • Two-dimensional shapes.pdf: Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”). <ul style="list-style-type: none"> - Shapes and Positioning
K.GM.G.3 Compare and classify two-dimensional shapes to describe their similarities, differences, and attributes (squares, circles, triangles, rectangles).	<ul style="list-style-type: none"> • Song: Corners and Sides • Simple Shapes • Solid Shapes • Tangrams • Similar Figures 	<ul style="list-style-type: none"> • 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). <ul style="list-style-type: none"> - Comparing Shapes
K.GM.G.4 Compose a geometric shape by combining two or more simple shapes.	<ul style="list-style-type: none"> • Geoboard • Tangrams 	<ul style="list-style-type: none"> • Form larger shapes.pdf: Compose simple shapes to form larger shapes. <ul style="list-style-type: none"> - Combining Shapes

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<p>Measurement (M) Learners will represent and calculate measurement data, including time, money, and geometric measurement, and convert like measurement units within a given system.</p>		
<p>K.GM.M.1 Compare and order two objects with a common measurable attribute.</p>	<ul style="list-style-type: none"> • Songs: Savanna Size, Measuring Plants • Capacity • Length • Big and Little • Tall and Short • Heavy and Light • Size 	<ul style="list-style-type: none"> • Comparing objects.pdf: Directly compare two objects with a measurable attribute in common, to see which object has “more of”/”less of” the attribute, and describe the difference. <ul style="list-style-type: none"> - 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
<p>K.GM.M.2 Tell time related to daily life (today, yesterday, tomorrow, morning, afternoon, night).</p>	<ul style="list-style-type: none"> • Yesterday/Tomorrow • Today 	
<p>Data, Probability, and Statistics (DPS) Learners will ask and answer questions by collecting, organizing, and displaying relevant data, drawing inferences and conclusions, making predictions, and understanding and applying basic probability concepts</p>		
<p>Data (D) Learners will represent and interpret data.</p>		
<p>K.DPS.D.1 Sort and classify objects (up to 10) based on attributes and explain the reasoning used.</p>	<ul style="list-style-type: none"> • Songs: Same and Different; All Sorts of Laundry • Book: Buttons, Buttons • Sort • Make and Count Groups 	<ul style="list-style-type: none"> • Classifying objects.pdf: Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. <ul style="list-style-type: none"> - Let’s Sort - Sort

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FIRST GRADE		
Number and Operations (NO) Learners will develop a foundational understanding of the number system, operations, and computational fluency to create connections and solve problems within and across concepts.		
Counting and Cardinality (CC) Learners will understand the relationship between numerical symbols, names, quantities, and counting sequences.		
1.NO.CC.1 Count forward by ones and tens from any given point within 120.	<ul style="list-style-type: none"> • Songs: Counting On; Skip Counting • Count On • Number Chart • Skip Count by 10 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - 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
1.NO.CC.2 Count backward by ones and tens from a given number within 120.	<ul style="list-style-type: none"> • Songs: Counting Backward • Counting Back 	
1.NO.CC.3 Represent several objects with a written numeral up to 120.	<ul style="list-style-type: none"> • Song: Counting On • Count On • Number Chart 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - 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
1.NO.CC.4 Recognize and verbally label arrangements, without counting, for briefly shown collections up to 20 (e.g., “I saw 16.” How do you know?” “I saw 10 and 6, that is 16.”)	<ul style="list-style-type: none"> • Moving Target (Dots) • Make and Count Groups 	
1.NO.CC.5 Skip count by 5s and 10s from multiples and recognize the patterns of up to 10 skip counts.	<ul style="list-style-type: none"> • Song: Skip Counting • Book: Jump Rope Rhymes • Skip Count by 5 • Skip Count by 10 	

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Base Ten (NBT) Learners will understand the place value structure of the base-ten number system and represent, compare, and perform operations with multi-digit whole numbers and decimals.		
1.NO.NBT.1 Understand that the two digits of a two-digit number represent a composition of some tens and some ones.	<ul style="list-style-type: none"> • Song: Place Value • Place Value of 2-digit Numbers • Add with Manipulatives 	<ul style="list-style-type: none"> • Tens as a bundle of ones.pdf: 10 can be thought of as a bundle of ten ones—called a “ten.” <ul style="list-style-type: none"> - Popsicles to Ten
1.NO.NBT.2 Compare two two-digit numbers using symbols $>$, $=$,	<ul style="list-style-type: none"> • Place Value • Greater Than, Less Than (2-digit Numbers) 	<ul style="list-style-type: none"> • Compare two-digit numbers.pdf: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$. <ul style="list-style-type: none"> - More or Less Spinner - Catch Me if You Can! - What Are You Looking For? - Two-Pile Sort
1.NO.NBT.3 Add within 100 using a two-digit number and a one-digit number using concrete models, drawings, and strategies that reflect an understanding of place value.	<ul style="list-style-type: none"> • Addition • Add Tens • Add with Manipulatives • Add Vertical Squares • Add with Beads • Addition and Subtraction Relationship • Add with Regrouping Concept • Add 2-digit and 1-digit Numbers with Regrouping 	<ul style="list-style-type: none"> • 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). <ul style="list-style-type: none"> - 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.NO.NBT.4 Subtract multiples of 10 within 100 using concrete models, drawings, and strategies that reflect an understanding of place value.	<ul style="list-style-type: none"> • Subtraction • Subtract Tens • Subtraction Patterns • Subtract • Place Value • Addition and Subtraction Relationship • Use Manipulatives 	<ul style="list-style-type: none"> • Subtracting in 10s.pdf: Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90. <ul style="list-style-type: none"> - Ten-O - Bingo - Subtract Multiples of 10

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<p>Base Ten (NBT) Learners will understand the place value structure of the base-ten number system and represent, compare, and perform operations with multi-digit whole numbers and decimals <i>continued</i>.</p>		
<p>1.NO.NBT.5 Mentally add or subtract 10 to or from a given two-digit number and explain the reasoning used.</p>	<ul style="list-style-type: none"> • Song: Skip Counting • Book: Navajo Beads • Add • Subtract • Add Tens • Subtract Tens • Skip Count by 10 • Number Chart 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Ten-O - Toss It - Make a Number - Subtract 10 - Flashcards - Bingo - Addition of Tens
<p>Fractions (NF) Learners will understand fractions and equivalency to represent, compare, and perform operations of fractions and decimals.</p>		
<p>1.NO.NF.1 Partition circles and rectangles into two and four equal shares using the language halves and fourths.</p>	<ul style="list-style-type: none"> • Song: Fractions • Books: Halves and Fourths and Thirds; Half For You and Half For Me • Equal-part Fractions • Label Parts of Fractions 	<ul style="list-style-type: none"> • Equal shares.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. <ul style="list-style-type: none"> - Make It Equal - Fraction Friends - Fraction Train - Halves, Thirds, Fourths - Equal Parts

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<p>Algebraic Reasoning (AR) Learners will look for, generate, and make sense of patterns, relationships, and algebraic symbols to represent mathematical models while adopting approaches and solutions in novel situations.</p>		
<p>Operations and Algebraic Thinking (OA) Learners will analyze patterns and relationships to generate and interpret numerical expressions.</p>		
<p>1.AR.OA.1 Automatically add and subtract within 10.</p>	<ul style="list-style-type: none"> • Songs: Fact Families; Counting On • Books: Facts about Families • Addition and Subtraction Fact Families • Addition Sentences • Subtraction Sentences • Commutative Property of Addition • Addition and Subtraction Relationship • Missing Addends • Missing Minuends and Subtrahends • Add 3 One-digit Numbers • Subtraction Patterns 	<ul style="list-style-type: none"> • Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. <ul style="list-style-type: none"> - 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
<p>1.AR.OA.2 For any number from 11 to 19, find the number that makes 20 when added to the given number, sharing the answer with a model, drawing, or equation.</p>	<ul style="list-style-type: none"> • Missing Addends • Count On • Act Out Addition • Addition and Subtraction Fact Families 	<ul style="list-style-type: none"> • Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. <ul style="list-style-type: none"> - 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
<p>1.AR.OA.3 Decompose numbers less than or equal to 20 into pairs in more than one way.</p>	<ul style="list-style-type: none"> • Make and Count Groups • Add Groups • Subtract Groups • Act Out Subtraction 	

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<p>Operations and Algebraic Thinking (OA) Learners will analyze patterns and relationships to generate and interpret numerical expressions <i>continued</i>.</p>		
<p>1.AR.OA.4 Solve authentic problems with addition, including three numbers and unknowns, within 20.</p>	<ul style="list-style-type: none"> Add 3 One-digit Numbers 	<ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> Draw a Picture
<p>1.AR.OA.5 Solve authentic problems with subtraction, including unknowns, within 20.</p>	<ul style="list-style-type: none"> Songs: Fact Families; Doubles Book: Facts About Families Addition and Subtraction Fact Families Addition and Subtraction Relationship 	<ul style="list-style-type: none"> Word problems using subtraction within 20.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. <ul style="list-style-type: none"> Guess and Check Model the Story
<p>1.AR.OA.6 Use the +, -, and = symbols accurately in an equation.</p>	<ul style="list-style-type: none"> Addition Sentences Subtraction Sentences 	<ul style="list-style-type: none"> Equal sign.pdf: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. <ul style="list-style-type: none"> Show Me! Tricky Total Domino Addition Domino Subtraction Playground Fact Snake
<p>1.AR.OA.7 Identify, create, complete, and extend repeating, increasing, and decreasing patterns in a variety of contexts.</p>	<ul style="list-style-type: none"> Song: Train Station Patterns Book: How King Snake Got His Pattern Patterns Pattern: AB; ABB; ABC Logic Game 	<ul style="list-style-type: none"> Look for a pattern: Practice filling in missing patterns.

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<p>Geometry and Measurement (GM) Learners will use visualization, spatial reasoning, geometric modeling, and measurement to investigate the characteristics of figures, perform transformations, and construct logical arguments.</p>		
<p>Geometry (G) Learners will compose and classify figures and shapes based on attributes and properties; represent and solve problems using a coordinate plane.</p>		
<p>1.GM.G.1 Name shapes and identify them as two-dimensional (trapezoids, rhombuses, pentagons, hexagons, octagons).</p>	<ul style="list-style-type: none"> • Songs: Shapes, Shapes, Shapes; Kites • Books: The Shape of Things; Imagination Shapes • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Rhombus • Simple Shapes 	<ul style="list-style-type: none"> • Shape recognition.pdf: Correctly name shapes regardless of their orientations or overall size. <ul style="list-style-type: none"> - Shapes Scavenger Hunt - Shapes and Positioning
<p>1.GM.G.2 Name and identify solids as three-dimensional (cylinders, cones, triangular prisms, and rectangular prisms).</p>	<ul style="list-style-type: none"> • Songs: Shapes, Shapes, Shapes; Kites • Book: Imagination Shapes • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Rhombus • Space Shapes • World Shapes 	<ul style="list-style-type: none"> • Two-dimensional shapes.pdf: Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”). <ul style="list-style-type: none"> - Shapes and Positioning
<p>1.GM.G.3 Determine geometric attributes of two-dimensional and three-dimensional shapes (squares, circles, triangles, rectangles, trapezoids, rhombuses, pentagons, hexagons, octagons, cubes, spheres, cylinders, cones, triangular prisms, and rectangular prisms).</p>	<ul style="list-style-type: none"> • Song: Corners and Sides • Simple Shapes • Solid Shapes • Space Shapes • Congruence • Tangrams • Similar Figures 	<ul style="list-style-type: none"> • Attributes.pdf: Distinguish between defining attributes versus non-defining attributes; build and draw shapes to possess defining attributes. <ul style="list-style-type: none"> - Sorting Shapes
<p>1.GM.G.4 Compose a geometric shape or solid by combining multiple two-dimensional shapes and/or three-dimensional solids (squares, circles, triangles, rectangles, trapezoids, rhombuses, pentagons, hexagons, octagons, cubes, spheres, cylinders, cones, triangular prisms, and rectangular prisms).</p>	<ul style="list-style-type: none"> • Song: Kites • Space Shapes • Geoboard • Tangrams 	<ul style="list-style-type: none"> • Form larger shapes.pdf: Compose simple shapes to form larger shapes. <ul style="list-style-type: none"> - Combining Shapes

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<p>Measurement (M) Learners will represent and calculate measurement data, including time, money, and geometric measurement; and convert like measurement units within a given system.</p>		
<p>1.GM.M.1 Measure the length of an object as a whole number of same-size, non-standard units from end to end.</p>	<ul style="list-style-type: none"> • Length • Nonstandard Units of Length 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Measures of Me - Measure a Handful - Estimating Length - A Fruit and Vegetable - Measure Up! - Inches/Centimeters Rulers
<p>1.GM.M.2 Compare the lengths of three objects.</p>	<ul style="list-style-type: none"> • Length • Nonstandard Units of Length 	<ul style="list-style-type: none"> • Order by length.pdf: Order three objects by length; compare the lengths of two objects indirectly by using a third object. <ul style="list-style-type: none"> - Estimating Length - A Fruit and Vegetable Measure
<p>1.GM.M.3 Tell and write time to the hour and half-hour (including o'clock and half past) using analog and digital clocks.</p>	<ul style="list-style-type: none"> • Song: Clock Hands • Books: Mr. Romano's Secret: A Time Story • Tell Time to the Hour • Tell Time to the Half-Hour 	<ul style="list-style-type: none"> • Hours and half-hours.pdf: Tell and write time in hours and half-hours using analog and digital clocks. <ul style="list-style-type: none"> - 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
<p>1.GM.M.4 Identify and tell the value of a dollar bill, quarter, dime, nickel, and penny.</p>	<ul style="list-style-type: none"> • Song: Money • Book: Bugs For Sale • Coin Identification • Coin Value 	

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<p>Measurement (M) Learners will represent and calculate measurement data, including time, money, and geometric measurement; and convert like measurement units within a given system <i>continued</i>.</p>		
<p>1.GM.M.5 Count collections of coins (pennies, nickels, and dimes) relating to counting patterns by 1s, 5s, and 10s up to one dollar.</p>	<ul style="list-style-type: none"> • Song: Money • Book: Bugs For Sale • Coin Value • Count Quarters, Dimes, Nickels, and Pennies • Count Dimes, Nickels, and Pennies • Count Nickels and Pennies or Dimes and Pennies • Quarters • Skip Counting 	
<p>Data, Probability, and Statistics (DPS) Learners will ask and answer questions by collecting, organizing, and displaying relevant data, drawing inferences and conclusions, making predictions, and understanding and applying basic concepts of probability.</p>		
<p>1.DPS.D.1 Collect, organize, and represent data with up to three categories using picture and bar graphs.</p>	<ul style="list-style-type: none"> • Song: Graphing • Book: The Boonville Nine • Graphs • Bar Graphs • Picture Graphs 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - 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?

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<p>Data, Probability, and Statistics (DPS) Learners will ask and answer questions by collecting, organizing, and displaying relevant data, drawing inferences and conclusions, making predictions, and understanding and applying basic concepts of probability <i>continued</i>.</p>		
<p>1.DPS.D.2 Analyze data by answering descriptive questions.</p>	<ul style="list-style-type: none"> • Songs: Tallying; Graphing • Books: One More Cat; The Boonville Nine • Tally Marks • Make a Table 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - 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?
<p>SECOND GRADE</p>		
<p>Number and Operations (NO) Learners will develop a foundational understanding of the number system, operations, and computational fluency to create connections and solve problems within and across concepts.</p>		
<p>Counting and Cardinality (CC) Learners will understand the relationship between numerical symbols, names, quantities, and counting sequences.</p>		
<p>2.NO.CC.1 Count forward from any given number within 1000.</p>	<ul style="list-style-type: none"> • Skip Count • Number Sequences and Patterns 	<ul style="list-style-type: none"> • Counting within 1000.pdf: Count within 1,000; skip-count by 5s, 10s, and 100s. <ul style="list-style-type: none"> - Chart Patterns - My 199; 200; 299; 300; 399; 400; 499; 500; 599; 600; 699; and 700 Picture - 900 Chart
<p>2.NO.CC.2 Count backward from any given number within 1000.</p>	<ul style="list-style-type: none"> • Song: Counting Backward • Book: A Space Adventure • Counting Back • Count Down 	

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Counting and Cardinality (CC) Learners will understand the relationship between numerical symbols, names, quantities, and counting sequences <i>continued</i> .		
2.NO.CC.3 Read and write numbers up to 1000 using standard, word, and expanded forms.	<ul style="list-style-type: none"> • Number Instruction • Number Recognition and Sense 	<ul style="list-style-type: none"> • Read and write numbers to 1000.pdf: Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form. <ul style="list-style-type: none"> - Cube Trails - Race For A Flat - High/Low Number Cube Throw - Lucky Five
2.NO.CC.4 Skip count by 2s and 100s and recognize the patterns of skip counts.	<ul style="list-style-type: none"> • Song: Skip Counting • Skip Count • Number Chart • Number Patterns 	
Base Ten (NBT) Learners will understand the place value structure of the base-ten number system and represent, compare, and perform operations with multi-digit whole numbers and decimals.		
2.NO.NBT.1 Understand that the three digits of a three-digit number represent a composition of some hundreds, some tens, and some ones.	<ul style="list-style-type: none"> • Song: Place Value • Place Value • Place Value of 3-digit Numbers 	<ul style="list-style-type: none"> • Thinking of 100 as a bundle of ten 10s.pdf: 100 can be thought of as a bundle of ten tens—called a “hundred.” <ul style="list-style-type: none"> - The Kingdom of Popsicle Stick-Filled Purses
2.NO.NBT.2 Compare two three-digit numbers using symbols $>$, $=$,	<ul style="list-style-type: none"> • Greater Than, Less Than (3-digit Numbers) • Place Value of 3-digit Numbers 	<ul style="list-style-type: none"> • Less than, equal to, or greater than.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. <ul style="list-style-type: none"> - More or Less - The Hands Have It! - Larger or Smaller? - Comparing Number Cards - $<$, $>$, $=$ Cards - Greater Than, Less Than, Equal To
2.NO.NBT.3 Add within 100 using place value strategies and/or the relationship between addition and subtraction.	<ul style="list-style-type: none"> • Place Value • Addition and Subtraction Relationship • Addition • Add without Regrouping • Add with Regrouping 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Addition of Two-Digit Numbers - Tic Tac Toe - Subtraction of Two-Digit Numbers

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<p>Base Ten (NBT) Learners will understand the place value structure of the base-ten number system and represent, compare, and perform operations with multi-digit whole numbers and decimals <i>continued</i>.</p>		
<p>2.NO.NBT.4 Subtract within 100 using place value strategies and/or the relationship between addition and subtraction.</p>	<ul style="list-style-type: none"> • Place Value • Addition and Subtraction Relationship • Subtraction • Subtract without regrouping • Subtract with Regrouping 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Addition of Two-Digit Numbers - Tic Tac Toe - Subtraction of Two-Digit Numbers
<p>2.NO.NBT.5 Mentally add or subtract 10 or 100 to or from a given number between 100 and 900.</p>	<ul style="list-style-type: none"> • Mental Math Games • Skip Count • Place Value • Number Chart • Number Patterns 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Spin and Solve
<p>Fractions (NF) Learners will understand fractions and equivalency to represent, compare, and perform operations of fractions and decimals.</p>		
<p>2.NO.NF.1 Partition circles and rectangles into two, three, or four equal shares. Describe the shares using the language of halves, thirds, fourths, half of, a third of, and a fourth of.</p>	<ul style="list-style-type: none"> • Song: Fractions • Books: The Fraction Twins; Halves and Fourths and Thirds • Label Parts of Fractions • Fractions of Regions • Fractions of Groups 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Frenzied Fraction Fun - Fabulous Fractions
<p>2.NO.NF.2 Recognize that identical wholes can be equally divided in different ways.</p>	<ul style="list-style-type: none"> • Song: Fractions • Books: The Fraction Twins; Halves and Fourths and Thirds • Label Parts of Fractions • Fractions of Regions • Fractions of Groups 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Frenzied Fraction Fun - Fabulous Fractions
<p>2.NO.NF.3 Recognize that partitioning shapes into more equal shares creates smaller shares.</p>	<ul style="list-style-type: none"> • Song: Fractions • Book: The Fraction Twins • Label Parts of Fractions • Fractions of Regions • Fractions of Groups 	

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<p>Algebraic Reasoning (AR) Learners will look for, generate, and make sense of patterns, relationships, and algebraic symbols to represent mathematical models while adopting approaches and solutions in novel situations.</p>		
<p>Operations and Algebraic Thinking (OA) Learners will analyze patterns and relationships to generate and interpret numerical expressions.</p>		
<p>2.AR.OA.1 Automatically add and subtract within 20.</p>	<ul style="list-style-type: none"> • Song: Fact Families • Addition and Subtraction Relationship • Addition and Subtraction Fact Families • Speed Games 	<ul style="list-style-type: none"> • Adding and subtracting within 20.pdf: Fluently add and subtract within 20 using mental strategies. <ul style="list-style-type: none"> - Addition and Subtraction—horizontal - Addition and Subtraction—vertical - Addition and subtraction—horizontal and vertical
<p>2.AR.OA.2 Apply the properties of operations to solve addition and subtraction equations and justify thoughts.</p>	<ul style="list-style-type: none"> • Song: Fact Families • Addition and Subtraction Relationship • Addition and Subtraction Fact Families 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Addition of Two-Digit Numbers - Tic Tac Toe - Subtraction of Two-Digit Numbers
<p>2.AR.OA.3 Solve one- and two-step authentic word problems with addition within 100.</p>	<ul style="list-style-type: none"> • Book: Painting by Number • Addition • Missing Addends and Subtrahends • Addition Sentences • Addition and Subtraction Facts 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Animal Math - Picture Problems - Color the Chart - Think About it Differently - Act it Out - Guess and Check

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<p>Operations and Algebraic Thinking (OA) Learners will analyze patterns and relationships to generate and interpret numerical expressions <i>continued</i>.</p>		
<p>2.AR.OA.4 Solve one- and two-step authentic word problems with subtraction within 100.</p>	<ul style="list-style-type: none"> • Book: Circus 20 • Subtraction • Missing Addends and Subtrahends • Subtraction Sentences • Addition and Subtraction Facts 	<ul style="list-style-type: none"> • One- and two-step word problems within 100. 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. <ul style="list-style-type: none"> - Animal Math - Picture Problems - Color the Chart - Think About it Differently - Act it Out - Guess and Check
<p>2.AR.OA.5 Use repeated addition to find the total number of objects arranged in a rectangular array.</p>	<ul style="list-style-type: none"> • Addition • Multiply Using Repeated Addition • Multiply Using Arrays 	
<p>2.AR.OA.6 Identify a group of objects from 0 to 20 as even or odd by showing even numbers as a sum of two equal parts.</p>	<ul style="list-style-type: none"> • Song: Odd Todd and Even Steven • Skip Count by 2 • Addition Facts 	<ul style="list-style-type: none"> • Odd and even recognition.pdf: Determine whether a group of objects (up to 20) has an odd or even number of members. <ul style="list-style-type: none"> - Missing Patterns - Counting by 2s - What's My Number?
<p>Geometry and Measurement (GM) Learners will use visualization, spatial reasoning, geometric modeling, and measurement to investigate the characteristics of figures, perform transformations, and construct logical arguments.</p>		
<p>Geometry (G) Learners will compose and classify figures and shapes based on attributes and properties; represent and solve problems using a coordinate plane.</p>		
<p>2.GM.G.1 Identify two-dimensional shapes (parallelograms and quadrilaterals).</p>	<ul style="list-style-type: none"> • Songs: Marmot Shapes; Shapes, Shapes, Shapes; Corners and Sides • Books: The Shape of Things; Imagination Shapes • Simple Shapes 	<ul style="list-style-type: none"> • Shape recognition.pdf: Correctly name shapes regardless of their orientations or overall size. <ul style="list-style-type: none"> - Shapes Scavenger Hunt - Shapes and Positioning - Shapes Flashcards

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<p>Geometry (G) Learners will compose and classify figures and shapes based on attributes and properties; represent and solve problems using a coordinate plane <i>continued</i>.</p>		
<p>2.GM.G.2 Identify two-dimensional shapes found within three-dimensional shapes.</p>	<ul style="list-style-type: none"> • Songs: Corners and Sides; Kites • Book: The Shape of Things; Imagination Shapes • Space Shapes • World Shapes • Geoboard • Tangrams 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Making Shapes - Shapes Review
<p>2.GM.G.3 Compose geometric shapes having specified geometric attributes, such as a given number of edges, angles, faces, vertices, and/or sides.</p>	<ul style="list-style-type: none"> • Songs: Kites; Corners and Sides • Space Shapes 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Making Shapes - Shapes Review
<p>Measurement (M) Learners will represent and calculate measurement data, including time, money, and geometric measurement, and convert like measurement units within a given system.</p>		
<p>2.GM.M.1 Measure the length of an object using two different standard units of measurement. Describe how the two measurements relate to the size of the units chosen.</p>	<ul style="list-style-type: none"> • Length • Standard Units of Length • Measurement Tools 	<ul style="list-style-type: none"> • Measuring the same object two ways.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. <ul style="list-style-type: none"> - Ready, Set, Measure
<p>2.GM.M.2 Estimate and measure to determine how much longer one object is than another, expressing the difference with a standard unit of measurement.</p>	<ul style="list-style-type: none"> • Length • Standard Units of Length 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Ready, Set, Measure - Treasure Hunt
<p>2.GM.M.3 Tell and write time to the nearest five minutes (including quarter after and quarter to) with a.m. and p.m. using analog and digital clocks.</p>	<ul style="list-style-type: none"> • Songs: Telling Time; Clock Hands • Tell Time • Tell Time to Five Minutes • Tell Time to the Quarter Hour • Tell Time to the Minute • Tell Time to the Hour • Tell Time to the Half-hour 	<ul style="list-style-type: none"> • Tell and write time.pdf: Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. <ul style="list-style-type: none"> - Matching Clocks - Cartoon Captions - Time to 5 Minutes

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<p>Measurement (M) Learners will represent and calculate measurement data, including time, money, and geometric measurement, and convert like measurement units within a given system <i>continued</i>.</p>		
<p>2.GM.M.4 Count collections of money (quarters, dimes, nickels, and pennies) relating to counting patterns by 1s, 5s, and 10s up to one dollar.</p>	<ul style="list-style-type: none"> • Song: Money • Book: Bugs For Sale • Count Quarters, Dimes, Nickels, and Pennies • Count Dimes, Nickels, and Pennies • Count Nickels and Pennies or Dimes and Pennies • Quarters • Skip Counting 	
<p>Data, Probability, and Statistics (DPS) Learners will ask and answer questions by collecting, organizing, and displaying relevant data, drawing inferences and conclusions, making predictions, and understanding and applying basic concepts of probability.</p>		
<p>Data (D) Learners will represent and interpret data.</p>		
<p>2.DPS.D.1 Formulate questions to collect, organize, and represent data with up to four categories using a single unit scaled picture and bar graphs.</p>	<ul style="list-style-type: none"> • Song: Graphing • Graphing • Bar Graphs • Picture Graphs • Use Graphs and Tables 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Questions and Answers - Library Book Survey - Playground Survey - Rock Collections - Use Graphs and Tables

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<p>Data (D) Learners will represent and interpret data <i>continued</i>.</p>		
<p>2.DPS.D.2 Generate data and create line plots marked in whole-number units.</p>	<ul style="list-style-type: none"> • Number Line 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - 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?
<p>2.DPS.D.3 Analyze data and interpret the results to solve one-step comparison problems using information from the graphs.</p>	<ul style="list-style-type: none"> • Book: Painting By Number • Bar Graphs • Picture Graphs 	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - Questions and Answers - Library Book Survey - Playground Survey - Rock Collections - Use Graphs and Tables

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SCIENCE		
KINDERGARTEN		
Motion and Stability: Forces and Interactions		
K-PS2-1 Conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.	<ul style="list-style-type: none"> • Song: Push and Pull • Book: Mr. Mario's Neighborhood • Push and Pull 	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • Song: Push and Pull • Push and Pull 	
Energy		
K-PS3-1 Make observations to determine the effect of sunlight on Earth's surface.	<ul style="list-style-type: none"> • Songs: Water; Plants Are Growing; Sun Blues • Sun • Water 	
K-PS3-2 Use tools and materials provided to design and build a structure that will reduce the warming effect of sunlight on Earth's surface.	Waterford encourages everyone to have writing, drawing, and art materials available for children's creations.	<ul style="list-style-type: none"> • Sun and Shade Pictures
From Molecules to Organisms: Structures and Processes		
K-LS1-1 Describe patterns, through observation, of what plants and animals (including humans) need to survive.	<ul style="list-style-type: none"> • Songs: Water; Food From Plants • Books: Mela's Water Pot; Everybody Needs to Eat • Sun • Plants • Water • Plants and Animals Need Air • Healthy Plants' Needs 	<ul style="list-style-type: none"> • More to Explore Experiment: Water for Plants • Learning Together: Green and Growing

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Earth's Systems		
<p>K-ESS2-1 Use and share observations of local weather conditions to describe patterns over time.</p>	<ul style="list-style-type: none"> • Song: Seasons • Book: That's What I Like: A Book About Seasons • Weather • Calendar/Graph Weather • Weather Patterns • Clouds • Spring • Summer • Fall • Winter 	<ul style="list-style-type: none"> • Learning Together: Weather; The Weather Around Us • Weather Cards
<p>K-ESS2-2 Construct an argument supported by evidence for how plants and animals (including humans) can change their environment to meet their needs.</p>	<ul style="list-style-type: none"> • Books: Winter Snoozers; Birds at my House; The Old Maple Tree; Turtle's Pond 	
Earth and Human Activity		
<p>K-ESS3-1 Represent the relationship between the needs of different plants and animals (including humans) and the places they live using a model.</p>	<ul style="list-style-type: none"> • Song: Four Ecosystems • Book: Where in the World Would You Go Today? • Oceans • Mountains • Deserts • Rainforests 	<ul style="list-style-type: none"> • Learning Together: Our Earth
<p>K-ESS3-2 Ask questions to obtain information about the purpose of weather forecasting to prepare for and respond to weather.</p>	<ul style="list-style-type: none"> • Songs: Precipitation; Storms • Book: Whatever the Weather • Weather Tools • Calendar/Graph Weather 	
<p>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.</p>	<ul style="list-style-type: none"> • Songs: Conservation; Pollution Rap • Pollution and Recycling • Care of Water • Care of Earth • Care of Air 	<ul style="list-style-type: none"> • More to Explore Experiment: Recycling • Learning Together: Our Earth

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Engineering & Technology		
K-2-ET1-1 Ask questions, make observations, and gather information to define a simple problem (a situation people want to change) that can be solved through the development of a new or improved object or tool.	<ul style="list-style-type: none"> • Song: Inventing • Books: Inventions All Around; I Want to Be a Scientist Like Wilbur and Orville Wright; I Want to Be a Scientist Like Thomas Edison • Inventions 	<ul style="list-style-type: none"> • More to Explore Experiment: Recycling; Simple Machines
K-2-ET1-2 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.	<ul style="list-style-type: none"> • Books: How Did the Chicken Cross the Road?; Inventions All Around • Simple Machines 	
K-2-ET1-3 Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Heat Movement • Movement of Heat • Properties of Light • Heat Experiment • Light Experiment 	<ul style="list-style-type: none"> • More to Explore Experiment: Evaporation
FIRST GRADE		
Waves and Their Applications in Technologies for Information Transfer		
1-PS4-1 Plan and conduct investigations to provide evidence that sound can make materials vibrate and that vibrating materials can make sound.	<ul style="list-style-type: none"> • Song: Sound • Book: What Sounds Say • Sound Waves 	<ul style="list-style-type: none"> • More to Explore Experiment: Sound
1-PS4-2 Construct an evidence-based account, through observation, that objects can be seen only when illuminated.	<ul style="list-style-type: none"> • Books: My Family Campout; Lightning Bugs • Light Properties • Properties of Light 	
1-PS4-3 Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.	<ul style="list-style-type: none"> • Book: My Family Campout • Light Properties • Properties of Light 	

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Waves and Their Applications in Technologies for Information Transfer <i>continued</i>		
1-PS4-4 Design and build a device that uses light or sound to solve the problem of communicating over a distance.	<ul style="list-style-type: none"> • Song: Inventing • Books: I Want to Be a Scientist Like Thomas Edison; Inventions All Around 	
From Molecules to Organisms: Structures and Processes		
1-LS1-1 Construct an evidence-based argument with the use of a drawing or a model that illustrates how structures of plants or animals help them survive in their habitat.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • Song: Animal Bodies • Animal Behavior • Animal Bodies 	
Heredity: Inheritance and Variation of Traits		
1-LS3-1 Construct an evidence-based account, through observation, that young plants and animals are alike, but not exactly like, their parents.	<ul style="list-style-type: none"> • Books: George and Jack; A Seed Grows • Build Knowledge: Mine 	<ul style="list-style-type: none"> • More to Explore Experiment: Traits
Earth's Place in the Universe		
1-ESS1-1 Describe patterns that can be predicted through observations of the sun, moon, and stars.	<ul style="list-style-type: none"> • Songs: The Moon; Sun Blues • Books: Moon Song; Star Pictures; My Family Campout • Sun • Moon • Constellations 	<ul style="list-style-type: none"> • More to Explore Experiment: The Moon • Learning Together: The Sky Above Us
1-ESS1-2 Make observations at different times of the year to relate the amount of daylight to the time of year.	<ul style="list-style-type: none"> • Sun • Spring • Summer • Fall • Winter 	

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Engineering & Technology		
K-2-ET1-1 Ask questions, make observations, and gather information to define a simple problem (a situation people want to change) that can be solved through the development of a new or improved object or tool.	<ul style="list-style-type: none"> • Song: Inventing • Books: Inventions All Around; I Want to Be a Scientist Like Wilbur and Orville Wright • Inventions 	<ul style="list-style-type: none"> • More to Explore Experiment: Recycling; Simple Machines
K-2-ET1-2 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.	<ul style="list-style-type: none"> • Books: How Did the Chicken Cross the Road?; Inventions All Around • Simple Machines 	
K-2-ET1-3 Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Heat Movement • Movement of Heat • Heat Experiment 	<ul style="list-style-type: none"> • More to Explore Experiment: Evaporation
SECOND GRADE		
Matter & Its Interactions		
2-PS1-1 Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Changes in Matter • 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.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • Books: I Want to Be a Scientist Like Wilbur and Orville Wright; Inventions All Around • Geoboard • Tangrams 	
2-PS1-4 Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.	<ul style="list-style-type: none"> • Books: Warm Soup for Dedushka; Pancakes Matter • Matter • Changes in Matter • Movement of Heat 	

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Ecosystems: Interactions, Energy, and Dynamics		
2-LS2-1 Plan an investigation to determine if plants need sunlight and water to grow.	<ul style="list-style-type: none"> • Song: Plants Are Growing • Sun • Water • Plant Experiment • Healthy Plants' Needs 	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • Books: The Bee's Secret; The Old Maple Tree 	
Biological Evolution: Unity and Diversity		
2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.	<ul style="list-style-type: none"> • Songs: Animal Bodies; Four Ecosystems • Books: Animal Bodies; Where in the World Would You Go Today? • Ecosystems • Animal Bodies • Animal Behavior 	<ul style="list-style-type: none"> • Learning Together: Places on Earth
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.	<ul style="list-style-type: none"> • Songs: The Four Seasons; Rock Cycle • Books: That's What I Like: A Book About Seasons; Whatever the Weather; Fossils Under Our Feet • Rock Cycle • Fossils • Spring • Summer • Fall • Winter • Water 	<ul style="list-style-type: none"> • More to Explore Experiment: Rocks
Earth's Systems		
2-ESS2-1 Compare and contrast 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.	

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
<i>Earth's Systems continued</i>		
2-ESS2-2 Develop a model to represent the shapes and kinds of land and bodies of water in an area.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • Songs: Water; Uses of Water; Precipitation; Water Is All Around • Water Sources • Water • Water Cycle • Care of Water • States of Water • Heat Changes Water 	
<i>Engineering & Technology</i>		
K-2-ET1-1 Ask questions, make observations, and gather information to define a simple problem (a situation people want to change) that can be solved through the development of a new or improved object or tool.	<ul style="list-style-type: none"> • Song: Inventing • Books: Inventions All Around; I Want to Be a Scientist Like Wilbur and Orville Wright • Inventions 	<ul style="list-style-type: none"> • More to Explore Experiment: Recycling; Simple Machines
K-2-ET1-2 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.	<ul style="list-style-type: none"> • Books: How Did the Chicken Cross the Road?; Inventions All Around • Simple Machines 	
K-2-ET1-3 Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Heat Movement • Movement of Heat • Heat Experiment 	<ul style="list-style-type: none"> • More to Explore Experiment: Evaporation

PRE-MATH & SCIENCE

Math Books

Zero In My Toybox; One Day on the Farm; Two Feet; Look for Three; Four Fine Friends; Grandpa's Great Athlete: A Book About 5; Hide and Seek Six; Just Seven; Eight at the Lake; 9 Cat Night; Ten for My Machine; The Search for Eleven; The Tasty Number Twelve; Thirteen in My Garden; Fourteen Camel Caravan; Fifteen on a Spring Day; Dinner for Sixteen; The Seventeen Machine; Eighteen Carrot Stew; Nineteen Around the World; Twenty Clay Children; Poor Wandering 1; Snowy Twos Day; 1, 2, 3, 4 in the Jungle; Give Me 5; Suzy Ladybug; 7 Train; 8 Octopus Legs; Highway 9; 10 Astronauts; When I Saw 11; I Love the Number 12; 13 Clues; 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; Zero Is a Big Round Hole; Poor Wandering 1; Snowy Twos Day; 1, 2, 3, 4 in the Jungle; Give Me 5; Suzy Ladybug; 7 Train; 8 Octopus Legs; Highway 9; 10 Astronauts; When I Saw 11; I Love the Number 12; 13 Clues; 14 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, Waterford.org is continually developing resources with the latest research findings. Please note that this correlation is accurate as of the date on the cover.

SPANISH FAMILY ENGAGEMENT RESOURCES

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

SONGS

Beginning Math Songs

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

Nursery Songs and Rhymes

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

Beginning Reading Songs

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

Many of these songs are available on the [Waterford.org YouTube channel](https://www.youtube.com/channel/UC...).

WEEKLY HOMELINK NEWSLETTERS

Weekly newsletters (28 in all) are available for teachers to share with families. The newsletters explain what children are learning during the week and provide resources and activities to involve families.

MATH HOMELINK NEWSLETTERS

Match, Position, Shapes, Counting, Patterns Sort, Size, Number Sense (1-10), Order (1-10), Count On, Measurement (length), Count Down, Addition (10), Numbers 11-15, Numbers 16-20

SCIENCE HOMELINK NEWSLETTERS

The World Around Us (5 senses), Living Things (living v. non-living), Plants, Vertebrates, Invertebrates, The Sky Above Us (sun, moon, stars), Our Earth (recycle, ecosystems), How it Works (push/pull, solid/liquid, magnets, materials)

READING HOMELINK NEWSLETTERS

Alphabet Knowledge

Comprehension and Vocabulary

Sum Up: Remember Order, Sum Up: Remember Details, Peek at the Story, Guess and Check, Connect to Me, Build Knowledge

Readiness Skills Letters

Naming Parts of the Body; First, Next, Last; One-to-One Correspondence; Opposites; Look at Details (identify same and different)

Phonological Awareness Letters

What Is Rhyming?, Which Words Rhyme?, Sentences Are Made Up of Words, Making Compound Words, Breaking Compound Words, What Is a Syllable?, Put Syllables Together to Make Words, Break Words into Syllables, The First Sound in a Word, Words with the Same First Sound, Making Words from First Sounds and the Rest

WATERFORD MENTOR

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



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