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CURRICULUM

*Correlation Criteria:* MINNESOTA ACADEMIC STANDARDS IN MATHEMATICS 2022 (VERSION TWO) & SCIENCE 2019 *for* KINDERGARTEN, 1ST, AND 2ND GRADES

DECEMBER 2022

# CURRICULUM *Correlation*


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

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| MINNESOTA STANDARDS | WATERFORD DIGITAL RESOURCES | WATERFORD TEACHER RESOURCES |
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| **MATHEMATICS** | | |
| Kindergarten | | |
| 1. Determine quantities, relationships between quantities and number systems and their representations, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities; relate to the properties of operations; assess reasonableness of the results. | | |
| K.1.1 1. Recognize that a number can be used to represent how many objects are in a set or to represent the position of an object in a sequence. (MP1) {CC1} | • Make and Count Groups<br>• Number Counting<br>• One-to-One Correspondence<br>• Order Numbers | |
| K.1.2 2. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number and with one and only one object. (MP6) {CC1, CC2} | • Counting Songs<br>• Number Songs<br>• Number Counting<br>• Order Numbers<br>• One-to-one Correspondence<br>• Make and Count Groups<br>• Number Instruction | • 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.<br>– Number Walk |
| K.1.3 3. Read, write, compare, order and represent whole numbers from 0 to at least 31. Representations may include numerals, pictures, real objects and picture graphs, spoken words and manipulatives such as connecting cubes. (MP4) | • Math Books<br>• Counting Songs<br>• Number Songs<br>• Number Instruction<br>• Order Numbers<br>• Greater Than, Less Than<br>• More Than, Fewer Than<br>• More Than<br>• Fewer Than | • Write numbers 0-20.pdf: Write numbers from 0 to 20. Represent a number of objects with a written numeral.<br>– Numbers Practice<br>– Numbers<br>– Add groups<br>– Count on by 1<br>– Number Writing Practice<br>– Compare two numbers.pdf: Compare two numbers between 1 and 10 presented as written numerals.<br>– More or Less Spinner<br>– Catch Me If You Can!<br>– Greater or Less<br>– Less or Greater |

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| **1. Determine quantities, relationships between quantities and number systems and their representations, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities; relate to the properties of operations; assess reasonableness of the results** ***continued*****.** | | |
| K.1.4 4. Compose and decompose numbers up to 10 with objects and pictures. (MP7) | • Make 10<br>• Missing Addends<br>• Count On<br>• Act Out Addition<br>• Make and Count Groups<br>• Add Groups<br>• Subtract Groups<br>• Act Out Subtraction | • 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.<br>– How Many More?<br>– 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.<br>– Addition Cubes<br>– Fact Families |
| K.1.5 5. Count, with or without objects, to at least 31. (MP6) {CC2} | • Count to 31<br>• Number Songs<br>• Counting Songs<br>• Number Instruction | |
| K.1.6 6. Count forward beginning from a given number within the known sequence (instead of having to begin at 1). (MP7) | • Count On<br>• Counting Songs<br>• Counting Puzzle<br>• Dot-to-Dot | • Count forward.pdf: Count forward beginning with a given number within the known sequence.<br>– Let's Count On<br>– Toss and Count<br>– Count On by 1<br>– Math Newsletter: Count On<br>– Flashcards |
| **2. Select and apply procedures accurately, efficiently and flexibly to solve mathematical and real-world problems; explaining one's solution pathway. Analyze results, evaluate progress and check answers. Transfer procedures to different problems and contexts; and recognize when one is more strategic to apply than another.** | | |
| K.2.1 1. Fluently add and subtract within 5. (MP2) | • Songs: Addition; On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction<br>• Book: Five Delicious Muffins<br>• Add Groups<br>• Subtract Groups<br>• Minuends<br>• Sums<br>• Act Out Addition<br>• Act Out Subtraction | |

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| **2. Select and apply procedures accurately, efficiently and flexibly to solve mathematical and real-world problems; explaining one's solution pathway. Analyze results, evaluate progress and check answers. Transfer procedures to different problems and contexts; and recognize when one is more strategic to apply than another *continued*.** | | |
| K.2.2 2. Find a number that is 1 more or 1 less than a given number. (MP7) | • Songs: Counting Backward<br>• Book: A Space Adventure<br>• Count On<br>• Count On by 1<br>• Counting Songs<br>• Count Down<br>• Counting Back | |
| **3. Represent proportional relationships in mathematical and real-world situations, using graphs, diagrams, tables, symbols and verbal descriptions, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities.** | | |
| K.3.1 1. Count collections of objects by grouping in 10s using ten-frames, cups or other tools. (MP7) {CC1, CC2} | • Make and Count Groups<br>• Place Value<br>• Use Manipulatives | • Ten Frames.pdf |
| K.3.2 2. Identify, create, complete and extend growing patterns involving 10s. (MP1) {CC1, CC2} | • Add Tens<br>• Number Chart<br>• Number Patterns<br>• Skip Count by 10 | 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).<br>– Toss It |
| **4. Use concepts and properties of equivalence and relational thinking to represent and compare numerical expressions, algebraic expressions or equations.** | | |
| K.4.1 1. Compare and order whole numbers, with and without objects from 0 to at least 31. (MP1) {CC2} | • Greater Than, Less Than<br>• More Than, Fewer Than<br>• Number Line<br>• Order Numbers | • Compare two numbers.pdf: Compare two numbers between 1 and 10 presented as written numerals.<br>– More or Less Spinner<br>– Catch Me If You Can!<br>– Greater or Less<br>– Less or Greater |

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| **4. Use concepts and properties of equivalence and relational thinking to represent and compare numerical expressions, algebraic expressions or equations *continued*.** | | |
| K.4.2 2. Identify whether the number of objects in one group is greater than, less than or equal to the number of objects in another group (by using matching, counting strategies and numberline) (MP2) | • Song: Greater Than, Less Than<br>• Book: For the Birds<br>• Greater Than, Less Than<br>• More Than, Fewer Than<br>• More Than<br>• Fewer Than<br>• 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.<br>– Beans and More<br>– More Than Buttons<br>– Short Names, Long Names<br>– Noodle Necklaces<br>– Groups Do Count!<br>– More Than, Fewer Than, Equal<br>– Which Has More?<br>– Fewer Than |
| K.4.3 3. Compose and decompose numbers from 11-19 into 10s and ones with objects and drawings. (Understand that these numbers are composed of 10 ones and one, two, three, four, five, six, seven, eight or nine ones.) (MP7) | • 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.<br>– Place Value 11–19 |
| **5. Represent and connect mathematical patterns and relationships using verbal descriptions, generalizations, tables and graphs. Use representations to solve mathematical and realworld situations, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities.** | | |
| K.5.1 1. Identify, create, complete and extend simple patterns using shape, color, size, number, sounds and movements. Patterns may be repeating, growing or shrinking such as ABB, ABB, ABB or ●, ●●, ●●●. (MP1, MP7) {CC1, CC2} | • Song: Train Station Patterns<br>• Patterns<br>• Pattern: AB; ABC; ABB<br>• Extend Patterns | • Patterns.pdf: Practice simple patterns with pictures, objects, sounds, or actions. |
| K.5.2 2. Recognize patterns in counting. Skip count by 10s starting at zero. (MP7) {CC1, CC2} | • Song: Skip Counting<br>• Book: Navajo Beads<br>• Skip Count by 10 | |

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| **6. Investigate measurement using a variety of tools, units, systems, processes and techniques, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities. Explain and reason with attributes, estimations and formulas. Justify decisions and consider the reasonableness of results.** | | |
| K.6.1 1. Compare objects with a measurable attribute in common, to see which object has "more of," "less of" or the "same as" the attribute and explain reasoning. (MP1, MP3, MP5) {CC1, CC2} | • Songs: Savanna Size, Measuring Plants<br>• Capacity<br>• Length<br>• Big and Little<br>• Tall and Short<br>• Heavy and Light<br>• Size | • 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.<br>– Filling Table<br>– Order It Up<br>– Straw Rulers<br>– Measuring Walk<br>– Heavy or Light<br>– Make A Balance<br>– Size Scavenger Hunt<br>– Big and Little Sort<br>– Boxes in a Line<br>– Teddy Bear Line-Up<br>– Magazine Sorting<br>– Tall and Short |
| K.6.2 2. Describe several measurable attributes of objects, such as length or weight. (MP4, MP6) {CC1, CC2} | • Song: Measuring Plants<br>• Length<br>• Weight | • Measurable attributes.pdf: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.<br>– Filling Table<br>– Order It Up<br>– Straw Rulers<br>– Measuring Walk<br>– Heavy or Light<br>– Make A Balance<br>– Measurable Attributes |

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| **7. Analyze characteristics of geometric shapes to make mathematical arguments and justifications about geometric relationships. Use visualization and geometric modeling to solve problems, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities.** | | |
| K.7.1 1. Sort objects using characteristics such as shape, size, color and thickness. (MP1) {CC1, CC2} | • Songs: All Sorts of Laundry; Marmot Shapes<br>• Book: Buttons, Buttons<br>• Sort<br>• Size | |
| K.7.2 2. Identify two- and three dimensional shapes such as squares, circles, triangles, rectangles, trapezoids, hexagons, cubes, cones, cylinders and spheres.(MP2) {CC1, CC2} | • Songs: Shapes, Shapes, Shapes; Marmot Shapes; Kites<br>• Books: The Shape of Things; Imagination Shapes<br>• Circle, Square, Triangle, Rectangle<br>• Star, Semicircle, Octagon, Oval, Rhombus<br>• Simple Shapes<br>• Solid Shapes<br>• World Shapes | • Shape recognition.pdf: Correctly name shapes regardless of their orientations or overall size.<br>– Shapes Scavenger Hunt<br>– Shapes and Positioning<br>– Shapes Flashcards |
| **8. Develop mental images and spatial sense of quantity, shape, location and orientation to make estimates, distinguish patterns and reason with relationships. Apply concepts and properties of space, tools of representation, processes of reasoning and communicate solutions.** | | |
| K.8.1 1. Compose and name numbers and simple shapes. (MP1) | • Songs: Marmot Shapes; Shapes, Shapes, Shapes; On the Bayou<br>• Circle, Square, Triangle, Rectangle<br>• Simple Shapes<br>• Place Value<br>• Counting Songs<br>• Number Songs<br>• Number Instruction | • 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.<br>– Number Walk<br>– Shape recognition.pdf: Correctly name shapes regardless of their orientations or overall size.<br>– Shapes Scavenger Hunt<br>– Shapes and Positioning<br>– Shapes Flashcards |

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| **8. Develop mental images and spatial sense of quantity, shape, location and orientation to make estimates, distinguish patterns and reason with relationships. Apply concepts and properties of space, tools of representation, processes of reasoning and communicate solutions *continued*.** | | |
| K.8.2 2. 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. (MP1, MP6) {CC2} | • Songs: Position Cat; Kites; Get Over the Bugs; Shapes, Shapes, Shapes<br>• Books: The Shape of Things; Imagination Shapes; Up In the Air<br>• Position<br>• Over, Under, Above, Below<br>• Inside, Outside, Between<br>• Circle, Square, Triangle, Rectangle<br>• Star, Semicircle, Octagon, Oval, Rhombus<br>• Simple Shapes<br>• Solid Shapes<br>• World Shapes<br>• 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.<br>– Shapes Scavenger Hunt |
| K.8.3 3. Name shapes regardless of their overall size. (MP2) | • Songs: Kites; Shapes, Shapes, Shapes<br>• Books: The Shape of Things; Imagination Shapes<br>• Circle, Square, Triangle, Rectangle<br>• Star, Semicircle, Octagon, Oval, Rhombus<br>• Simple Shapes<br>• Solid Shapes<br>• World Shapes | • Shape recognition.pdf: Correctly name shapes regardless of their orientations or overall size.<br>– Shapes Scavenger Hunt<br>– Shapes and Positioning<br>– Shapes Flashcards |
| K.8.4 4. Model shapes in the environment by building shapes from components (e.g., sticks and clay balls) and sketching shapes. (MP4) {CC2} | • Geoboard<br>• Tangrams | • Model shapes.pdf: Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.<br>– Building Shapes |
| K.8.5 5. Decompose numbers less than or equal to five into pairs in more than one way, e.g., by using objects or drawings and recording each decomposition by a drawing or equation. (MP7, MP2) | • Make and Count Groups<br>• Add Groups<br>• Subtract Groups<br>• Act Out Subtraction | • 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.<br>– Addition Cubes<br>– Fact Families |

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| **9. Identify, formulate and investigate statistical questions by collecting data considering cultural perspectives, analyzing and interpreting data and communicating the results.** | | |
| K.9.1 1. Notice and wonder about data rich situations to generate ideas and ask questions, with the teacher helping refine, direct and create statistical investigative questions; understand the purpose of data. (MP1, MP7) | • Books: Milton's Mittens; The Booneville Nine; One More Cat | • Collect and Study Data.pdf: Ask a question. Then collect, organize, and study the data to find an answer. |
| K.9.2 2. Classify and sort objects, including historical and contemporary objects from Dakota and Anishinaabe Tribal Nations and other communities, into categories and communicate reasoning for the sorting system used, recognizing variability, such as difference sizes in a counting collection; Count the numbers of objects in each category and sort the categories by count. (MP3, MP7, MP8) | • Songs: Same and Different; All Sorts of Laundry<br>• Book: Buttons, Buttons<br>• Sort<br>• Make and Count Groups<br>• Size | • Classifying objects.pdf: Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.<br>– Let's Sort<br>– Sort |
| K.9.3 3. Use tally marks or pictures to represent data; make inferences and summarize results to answer initial statistical questions; communicate results. (MP1, MP3, MP6) | • Books: Milton's Mittens; The Booneville Nine; One More Cat | • Collect and Study Data.pdf: Ask a question. Then collect, organize, and study the data to find an answer. |
| **11. Explore and analyze financial problems using appropriate technology tools. Apply mathematical concepts to make informed decisions about how to earn, track, save, borrow, share and invest money, while considering a range of acceptable solutions as well as constraints which may affect individual and generational wealth, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities.** | | |
| K.11.1 Recognize that money has worth, i.e. value. (MP2) {CC1, CC2} | • Songs: Money; Save Your Pennies<br>• Book: Bugs For Sale<br>• Coin Identification<br>• Coin Value | |
| K.11.2 Define money earned as income. (MP7) | • Books: Bugs For Sale; Follow the Apples | |

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| **11. Explore and analyze financial problems using appropriate technology tools. Apply mathematical concepts to make informed decisions about how to earn, track, save, borrow, share and invest money, while considering a range of acceptable solutions as well as constraints which may affect individual and generational wealth, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities *continued*.** | | |
| K.11.3 Distinguish between wants and needs and identify income as a source to meet one's wants and needs. (MP1) {CC1, CC2} | • Books: Bugs For Sale; Fudge For Sale | |
| K.11.4 Identify pennies and dimes; find the value of dimes up to one dollar. (MP1) | • Book: Bugs For Sale<br>• Coin Identification<br>• Coin Value<br>• Count Dimes, Nickels, and Pennies | • Money.pdf: Learn to identify pennies, nickels, dimes, and quarters.<br>– Identify Coins |
| **Grade 1** | | |
| **1. Determine quantities, relationships between quantities and number systems and their representations, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities; relate to the properties of operations; assess reasonableness of the results.** | | |
| 1.1.1 1. Use place value to describe whole numbers between 10 and 120 in terms of 10s and ones. (MP2) | • Song: Skip Counting<br>• Place Value<br>• Number Chart<br>• Skip Count by 10 | • Count to 100 by ones and tens.pdf: Count to 100 by ones and tens.<br>– Missing Numbers<br>– Count On By 1<br>– Numbers 1–5<br>– Numbers 6–10<br>– Math Newsletters<br>– Count By 10s<br>– Numbers 60–69<br>– I Can Count to 100 |
| 1.1.2 2. Read, write, compare, order and represent whole numbers from 0 to 120. Representations may include numerals, addition and subtraction, pictures, tally marks, number lines and manipulatives, such as bundles of sticks and base 10 blocks. | • Songs: Addition; Subtract Those Cars; Tallying<br>• Greater Than, Less Than<br>• More Than, Fewer Than<br>• Number Line<br>• Order Numbers | • 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.<br>– Mystery Numbers<br>• 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 <.<br>– More or Less Spinner<br>– Catch Me if You Can!<br>– What Are You Looking For?<br>– Two-Pile Sort |

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| **1. Determine quantities, relationships between quantities and number systems and their representations, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities; relate to the properties of operations; assess reasonableness of the results *continued*.** | | |
| 1.1.2 2.a. The numbers from 11 to 19 are composed of a 10 and one, two, three, four, five, six, seven, eight or nine ones. (MP7, MP8) | • Song: Place Value<br>• Place Value of 2-digit Numbers<br>• 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.<br>– Toss It<br>– Make a Number<br>– Numbers Flashcards<br>– Numbers 10–19<br>– More Numbers 10–19 |
| 1.1.2 2.b. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight or nine 10s (and 0 ones) (MP7, MP8) | • Place Value<br>• Place 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).<br>– Toss It |
| 1.1.3 3. Count, with or without objects, forward and backward from any given number up to 120. {CC2} (MP7) | • Songs: Counting Backward<br>• Book: A Space Adventure<br>• Count On<br>• Counting Songs<br>• Count Down<br>• Counting Back | • Count forward.pdf: Count forward beginning with a given number within the known sequence.<br>– Let's Count On<br>– Toss and Count<br>– Count On by 1<br>– Math Newsletter: Count On |
| **2. Select and apply procedures accurately, efficiently and flexibly to solve mathematical and real-world problems; explaining one's solution pathway. Analyze results, evaluate progress and check answers. Transfer procedures to different problems and contexts; and recognize when one is more strategic to apply than another.** | | |
| 1.2.1 1. Use strategies to generate addition and subtraction facts including making 10s, fact families, doubles, doubles plus or minus one, counting on, counting back and the commutative and associative properties. Use the relationship between addition and subtraction to generate basic facts. (MP1, MP7) | • Songs: Fact Families; Counting On<br>• Books: Facts about Families<br>• Addition and Subtraction Fact Families<br>• Addition Sentences<br>• Subtraction Sentences<br>• Doubles<br>• Commutative Property of Addition<br>• Addition and Subtraction Relationship<br>• Missing Addends<br>• Missing Minuends and Subtrahends<br>• Subtraction Patterns<br>• Counting Back | • Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10.<br>– The Three Little Bears<br>– Fact Family Bingo<br>– A Graph of Fact Families<br>– Bean Facts<br>– Draw a Picture<br>– Addition<br>– Number Pyramid<br>– Subtraction Sentences<br>– Model the Story<br>– Fact Families |

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| **2. Select and apply procedures accurately, efficiently and flexibly to solve mathematical and real-world problems; explaining one's solution pathway. Analyze results, evaluate progress and check answers. Transfer procedures to different problems and contexts; and recognize when one is more strategic to apply than another *continued*.** | | |
| 1.2.2 2. Fluently add and subtract within 12. (MP7) | • Songs: Fact Families; Counting On<br>• Books: Facts about Families<br>• Addition and Subtraction Fact Families<br>• Addition Sentences<br>• Subtraction Sentences<br>• Commutative Property of Addition<br>• Addition and Subtraction Relationship<br>• Missing Addends<br>• Missing Minuends and Subtrahends<br>• Subtraction Patterns | • Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10.<br>– The Three Little Bears<br>– Fact Family Bingo<br>– A Graph of Fact Families<br>– Bean Facts<br>– Draw a Picture<br>– Addition<br>– Number Pyramid<br>– Subtraction Sentences<br>– Model the Story<br>– Fact Families |
| 1.2.3 3. Find a number that is 10 more or 10 less than a given number. (MP7) | • Song: Skip Counting<br>• Book: Navajo Beads<br>• Add<br>• Subtract<br>• Add Tens<br>• Subtract Tens<br>• Skip Count by 10<br>• 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.<br>– Ten-O<br>– Toss It<br>– Make a Number<br>– Subtract 10<br>– Flashcards<br>– Bingo<br>– Addition of Tens |
| **3. Represent proportional relationships in mathematical and real-world situations, using graphs, diagrams, tables, symbols and verbal descriptions, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities.** | | |
| 1.3.1 1. Count collections of objects using groups of 5s or 10s to 100. (MP1) | • Song: Skip Counting<br>• Make and Count Groups<br>• Skip Count by 5s<br>• Skip Count by 10s | |
| 1.3.2 2. Represent the counting strategy and the total using words, symbols and pictures. (MP7, MP8) {CC1, CC2} | • Books: Look For Three; Eight at the Lake; Just Seven; 9 Cat Night; One More Cat; The Circus Came to Town<br>• Match Numbers<br>• Make and Count Groups | |

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| **3. Represent proportional relationships in mathematical and real-world situations, using graphs, diagrams, tables, symbols and verbal descriptions, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities *continued*.** | | |
| 1.3.3 3. Skip count by 2s, 5s and 10s to 100. (MP7) | • Song: Skip Counting<br>• Book: Jump Rope Rhymes<br>• Skip Count<br>• Skip Count by 10<br>• Skip Count by 5<br>• Skip Count by 2<br>• Number Sequences and Patterns | |
| 1.3.4 4. Determine the double of any single digit number. (MP8) | • Doubles (Sums to 10)<br>• Subtract Doubles to 10 | |
| 1.3.5 5. Create simple patterns using objects, pictures, numbers and rules. Patterns have rules like add 2, add 5, add 10 beginning at 0. (MP7) {CC1, CC2} | • Song: Train Station Patterns<br>• Patterns<br>• Pattern: AB; ABC; ABB<br>• Extend Patterns<br>• Number Patterns<br>• Counting Chart | |
| **4. Use concepts and properties of equivalence and relational thinking to represent and compare numerical expressions, algebraic expressions or equations.** | | |
| 1.4.1 1. Compare and order whole numbers to 120. (MP1) | • Greater Than, Less Than 2-digit Numbers<br>• Greater Than, Less Than 3-digit Numbers<br>• More Than, Fewer Than<br>• Order Numbers<br>• Number Chart | |
| 1.4.2 2. Compare two, two-digit numbers based on meanings of the 10s and ones digits, recording the results of comparisons with the symbols >, = and | • Place Value<br>• 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 <.<br>– More or Less Spinner<br>– Catch Me if You Can!<br>– What Are You Looking For?<br>– Two-Pile Sort |

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| **4. Use concepts and properties of equivalence and relational thinking to represent and compare numerical expressions, algebraic expressions or equations *continued.*** | | |
| 1.4.3 3. Apply the commutative and associative properties of addition as strategies to add and subtract. (MP8) | • Addition and Subtraction Fact Families<br>• Addition Sentences<br>• Subtraction Sentences<br>• Commutative Property of Addition<br>• Addition and Subtraction Relationship<br>• Missing Addends<br>• Subtraction Patterns | |
| 1.4.4 4. Determine if equations involving addition and subtraction are true or false. (MP2) | • Song: Fact Families<br>• Book: Facts About Families<br>• Addition and Subtraction Fact Families<br>• Addition and Subtraction Relationship<br>• Commutative Property of Addition<br>• Addition Sentences<br>• Subtraction Sentences | • Equal sign.pdf: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.<br>– Show Me!<br>– Tricky Total<br>– Domino Addition<br>– Domino Subtraction<br>– Playground Fact Snake |
| 1.4.5 5. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. (MP7) | • Addition Sentences<br>• Subtraction Sentences<br>• Addition and Subtraction Fact Families<br>• Missing Addends<br>• Missing Minuends and Subtrahends | |
| **5. Represent and connect mathematical patterns and relationships using verbal descriptions, generalizations, tables and graphs. Use representations to solve mathematical and realworld situations, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities.** | | |
| 1.5.1 1. Create simple patterns using objects, pictures, numbers and rules. Identify possible rules to complete or extend patterns. Patterns may be repeating, growing or shrinking. Calculators can be used to create and explore patterns. (MP7) {CC1, CC2} | • Song: Train Station Patterns<br>• Patterns<br>• Pattern: AB; ABC; ABB<br>• Extend Patterns<br>• Number Patterns<br>• Counting Chart<br>• Logic Game | |

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| **5. Represent and connect mathematical patterns and relationships using verbal descriptions, generalizations, tables and graphs. Use representations to solve mathematical and realworld situations, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities *continued*.** | | |
| 1.5.2 2. Describe what is changing and what is staying the same in a visual growing pattern. (MP1, MP8) {CC1, CC2} | • Song: Train Station Patterns<br>• Patterns<br>• Pattern: AB; ABC; ABB<br>• Extend Patterns<br>• Number Patterns<br>• Counting Chart<br>• Logic Game | |
| 1.5.3 3. Recognize patterns in counting by 10s starting at a non-zero number (i.e. 7, 17, 27, ...). (MP7) {CC1, CC2} | • Number Patterns<br>• Skip Count<br>• Number Chart<br>• Number Sequences and Patterns | |
| **6. Investigate measurement using a variety of tools, units, systems, processes and techniques, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities. Explain and reason with attributes, estimations and formulas. Justify decisions and consider the reasonableness of results.** | | |
| 1.6.1 1. Order three objects by length; compare the lengths of two objects indirectly by using a third object. (MP2, MP5) {CC1, CC2} | • Length<br>• 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.<br>– Estimating Length<br>– A Fruit and Vegetable Measure |
| 1.6.2 2. Measure the length of an object in terms of non-standard units. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps. (MP5) {CC2} | • Length<br>• 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.<br>– Measures of Me<br>– Measure a Handful<br>– Estimating Length<br>– A Fruit and Vegetable<br>– Measure Up!<br>– Inches/Centimeters Rulers |

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| **7. Analyze characteristics of geometric shapes to make mathematical arguments and justifications about geometric relationships. Use visualization and geometric modeling to solve problems, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities.** | | |
| 1.7.1 1. Describe characteristics of two and three-dimensional objects, such as triangles, squares, rectangles, circles, rectangular prisms, cylinders, cones and spheres. (MP7, MP8) {CC1, CC2} | • Song: Corners and Sides<br>• Simple Shapes<br>• Solid Shapes<br>• Space Shapes<br>• Congruence<br>• Tangrams | • 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).<br>– Comparing Shapes |
| 1.7.2 2. 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. (MP1, MP2) {CC1, CC2} | • Songs: Corners and Sides; Kites<br>• Geoboard<br>• Space Shapes | • Attributes.pdf: Distinguish between defining attributes versus non-defining attributes; build and draw shapes to possess defining attributes.<br>– Sorting Shapes |
| **8. Develop mental images and spatial sense of quantity, shape, location and orientation to make estimates, distinguish patterns and reason with relationships. Apply concepts and properties of space, tools of representation, processes of reasoning and communicate solutions.** | | |
| 1.8.1 1. Estimate amounts up to 100 by using visual images of benchmarks of fives and 10s. (MP1, MP2) | • Songs: Skip Counting; At the Market<br>• Book: Navajo Beads<br>• Skip Count by 5<br>• Skip Count by 10 | • Estimate.pdf: Practice estimation by making careful guesses.<br>– Egg Carton Estimation<br>– Guess and Count<br>– Estimate |
| 1.8.2 2. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count by ones; justify reasoning by referencing a model. (MP2, MP3) | • Song: Skip Counting<br>• Book: Navajo Beads<br>• Add<br>• Subtract<br>• Add Tens<br>• Subtract Tens<br>• Skip Count by 10<br>• 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.<br>– Ten-O<br>– Toss It<br>– Make a Number<br>– Subtract 10<br>– Flashcards<br>– Bingo<br>– Addition of Tens |

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| **8. Develop mental images and spatial sense of quantity, shape, location and orientation to make estimates, distinguish patterns and reason with relationships. Apply concepts and properties of space, tools of representation, processes of reasoning and communicate solutions *continued*.** | | |
| 1.8.3 3. Describe objects in the environment using names of shapes and describe the relative positions of these objects using left and right. (MP6) {CC2} | • Songs: Position Cat; Kites; Get Over the Bugs; Shapes, Shapes, Shapes; Right and Left<br>• Books: The Shape of Things; Imagination Shapes; Up In the Air<br>• Position<br>• Over, Under, Above, Below<br>• Inside, Outside, Between<br>• Circle, Square, Triangle, Rectangle<br>• Star, Semicircle, Octagon, Oval, Rhombus<br>• Simple Shapes<br>• Solid Shapes<br>• World Shapes<br>• Above, Below, Next to, On<br>• Right, Left | • 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.<br>– Shapes Scavenger Hunt |
| 1.8.4 4. 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. (MP7) | • Make 10<br>• Missing Addends<br>• Count On<br>• Act Out Addition<br>• Make and Count Groups<br>• Add Groups<br>• Subtract Groups<br>• Act Out Subtraction | • 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.<br>– How Many More?<br>• 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.<br>– Addition Cubes<br>– Fact Families |
| 1.8.5 5. Describe representations of numbers using benchmarks like fives and 10s. (MP7, MP6) | • Song: Skip Counting<br>• Books: The 50 Bug Ball; Jump Rope Rhymes<br>• Skip Count | |

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| **8. Develop mental images and spatial sense of quantity, shape, location and orientation to make estimates, distinguish patterns and reason with relationships. Apply concepts and properties of space, tools of representation, processes of reasoning and communicate solutions *continued*.** | | |
| 1.8.6 6. Name shapes regardless of their orientations. (MP1) | • Songs: Kites; Shapes, Shapes, Shapes<br>• Books: The Shape of Things; Imagination Shapes<br>• Circle, Square, Triangle, Rectangle<br>• Star, Semicircle, Octagon, Oval, Rhombus<br>• Simple Shapes<br>• Solid Shapes<br>• World Shapes | • Shape recognition.pdf: Correctly name shapes regardless of their orientations or overall size.<br>– Shapes Scavenger Hunt<br>– Shapes and Positioning<br>– Shapes Flashcards |
| 1.8.7 7. Compose (combine) two dimensional shapes (rectangles, squares, trapezoids, triangles, half circles and quarter-circles) to create a composite shape and decompose (take apart) composite shapes into triangles, rectangles, squares and sectors. (MP7) | • Geoboard<br>• Tangrams | • Form larger shapes.pdf: Compose simple shapes to form larger shapes.<br>– Combining Shapes |
| 1.8.8 8. 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. (MP4) | • Song: Fractions<br>• Books: Halves and Fourths and Thirds; Half For You and Half For Me<br>• Equal-part Fractions<br>• 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.<br>– Make It Equal<br>– Fraction Friends<br>– Fraction Train<br>– Halves, Thirds, Fourths<br>– Equal Parts |

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| **9. Identify, formulate and investigate statistical questions by collecting data considering cultural perspectives, analyzing and interpreting data and communicating the results.** | | |
| 1.9.1 1. Notice and wonder about data rich situations to refine, direct and create statistical investigative questions with teacher guidance. (MP7) | • Books: Milton's Mittens; The Booneville Nine; One More Cat | • Collect and Study Data.pdf: Ask a question. Then collect, organize, and study the data to find an answer. |
| 1.9.2 2. Have awareness of what counts as data and understand that people collect data to answer questions and that data can vary (e.g. objects have different colors or sizes). (MP1) | • Songs: Tallying; Graphing<br>• Books: Painting by Number; One More Cat: The Booneville Nine<br>• Tally Marks<br>• Graphs<br>• Make a Table | |
| 1.9.3 3. Collect survey data and use given data to consider and decide what data will answer a question; Represent the same data as tally marks, drawings or digitally. (MP1, MP3) | • Songs: Tallying; Graphing<br>• Books: Painting by Number; One More Cat: The Booneville Nine<br>• Tally Marks<br>• Graphs<br>• Make a Table | • Collect and Study Data.pdf: Ask a question. Then collect, organize, and study the data to find an answer. |
| 1.9.4 4. Make predictions using patterns from data visualizations, including data from Dakota and Anishinaabe tribal nations and other communities. (MP4, MP7, MP8) | • Songs: Tallying; Graphing<br>• Books: Painting by Number; One More Cat: The Booneville Nine<br>• Tally Marks<br>• Graphs<br>• Make a Table | • Collect and Study Data.pdf: Ask a question. Then collect, organize, and study the data to find an answer. |
| 1.9.5 5. Decide key results that answer students' initial questions and ask additional questions that may arise to report to others and solve problems; use data to provide evidence for conclusions. (MP3, MP6) | • Songs: Tallying; Graphing<br>• Books: Painting by Number; One More Cat: The Booneville Nine<br>• Tally Marks<br>• Graphs<br>• Make a Table | • Collect and Study Data.pdf: Ask a question. Then collect, organize, and study the data to find an answer. |

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| **10. Apply and explain the concepts of probability to interpret data and make informed decisions to solve mathematical and real-world problems.** | | |
| 1.10.1 1. Describe outcomes of events as impossible, possible or certain. (MP1) {CC2} | • Song: Probability<br>• Book: Heads or Tails<br>• Probability<br>• Logic Game | |
| **11. Explore and analyze financial problems using appropriate technology tools. Apply mathematical concepts to make informed decisions about how to earn, track, save, borrow, share and invest money, while considering a range of acceptable solutions as well as constraints which may affect individual and generational wealth, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities.** | | |
| 1.11.1 1. Identify ways to earn income. (MP1) {CC1, CC2} | • Books: Bugs For Sale; Fudge For Sale | |
| 1.11.2 2. Distinguish between spending and saving and consider charitable giving. (MP1) {CC1, CC2} | • Songs: Save Your Pennies<br>• Book: Bugs for Sale | |
| 1.11.3 3. Identify pennies, nickels and dimes; find the value of a group of these coins, up to one dollar. (MP1, MP7) | • Songs: Money; Save Your Pennies<br>• Book: Bugs For Sale<br>• Coin Identification<br>• Coin Value<br>• Count Dimes, Nickels, and Pennies<br>• Count Nickels and Pennies or Dimes and Pennies<br>• Count Coins | |

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| **Grade 2** | | |
| **1. Determine quantities, relationships between quantities and number systems and their representations, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities; relate to the properties of operations; assess reasonableness of the results.** | | |
| 2.1.1 1. Read, write, compare, order and represent whole numbers up to 1,000. Representations may include numerals, addition, subtraction, multiplication, words, pictures, tally marks, number lines and manipulatives, such as bundles of sticks and base 10 blocks. (MP4) {CC1, CC2} | • Songs: Tallying; Multiplication<br>• Book: One More Cat<br>• Sequences of 2-digit Numbers<br>• Sequences of 3-digit Numbers<br>• Number Chart<br>• Place Value<br>• Greater Than, Less Than (3-digit Numbers)<br>• Place Value of 3-digit Numbers<br>• Tally Marks<br>• Addition<br>• Subtraction<br>• Expanded Notation | • Read and write numbers to 1000.pdf: Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.<br>– Cube Trails<br>– Race for a Flat<br>– High/Low Number Cube Throw<br>– Lucky Five<br>• 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.<br>– More or Less<br>– The Hands Have It!<br>– Larger or Smaller?<br>– Comparing Number Cards<br>– Number Cards<br>– <,>, = Cards<br>– Greater Than, Less Than, Equal To |
| 2.1.2 2. Use place value to describe whole numbers between 10 and 1,000 in terms of hundreds, 10s and ones. Know that 100 is 10 tens and 1,000 is 10 hundreds. (MP2) | • Song: Place Value<br>• Place Value<br>• 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.”<br>– The Kingdom of Popsicle Stick-Filled Purses |

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| **1. Determine quantities, relationships between quantities and number systems and their representations, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities; relate to the properties of operations; assess reasonableness of the results *continued*.** | | |
| 2.1.3 3. Compare two and three-digit numbers based on meanings of the hundreds, tens and ones digits, using >, = and < symbols to record the results of comparisons. {CC2} | • Greater Than, Less Than (2-digit Numbers)<br>• Greater Than, Less Than (3-digit Numbers)<br>• Place Value<br>• Place Value of 2-digit Numbers<br>• Place Value of 3-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 <.<br>– More or Less Spinner<br>– Catch Me if You Can!<br>– What Are You Looking For?<br>– Two-Pile Sort<br>• 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.<br>– More or Less<br>– The Hands Have It!<br>– Larger or Smaller?<br>– Comparing Number Cards<br>– Number Cards<br>– <,>, = Cards<br>– Greater Than, Less Than, Equal To |
| 2.1.4 4. Use mental strategies and algorithms based on knowledge of place value and equality to add and subtract two-digit numbers. Strategies may include decomposition, expanded notation and partial sums and differences. (MP1, MP7) | • Place Value<br>• Addition and Subtraction Relationship<br>• Commutative Properties of Addition<br>• Addition<br>• Subtraction<br>• Add without Regrouping<br>• Add with Regrouping<br>• Subtract without regrouping<br>• 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.<br>– Addition of Two-Digit Numbers<br>– Tic Tac Toe<br>– Subtraction of Two-Digit Numbers |

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| **1. Determine quantities, relationships between quantities and number systems and their representations, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities; relate to the properties of operations; assess reasonableness of the results *continued*.** | | |
| 2.1.5 5. Add and subtract within 1,000 using strategies based on place value, properties of operations and/or the relationship between addition and subtraction or 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. (MP7) {CC2} | • Place Value<br>• Addition and Subtraction Relationship<br>• Commutative Properties of Addition<br>• Addition<br>• Subtraction<br>• Add without Regrouping<br>• Add with Regrouping<br>• Subtract without regrouping<br>• Subtract with Regrouping<br>• Act Out Addition<br>• 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.<br>– Choose and Add<br>– Mix and Match Addition<br>– Expanded Subtraction<br>– Subtracting Repeats<br>– 999<br>– Prediction<br>– Up and Away<br>– Regrouping Treasure Hunt<br>– Play Ball<br>– Squirrel Facts |
| 2.1.6 6. Explain why addition and subtraction strategies work, using place value and the properties of operations. (MP6) | • Addition<br>• Subtraction<br>• Add with Regrouping Concept<br>• Subtract with Regrouping Concept<br>• Place Value<br>• Number Line<br>• Addition and Subtraction Relationship<br>• Commutative Properties of Addition<br>• Act Out Addition<br>• Act Out Subtraction | |

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| **2. Select and apply procedures accurately, efficiently and flexibly to solve mathematical and real-world problems; explaining one's solution pathway. Analyze results, evaluate progress and check answers. Transfer procedures to different problems and contexts; and recognize when one is more strategic to apply than another.** | | |
| 2.2.1 1. Find 10 more or 10 less than a given three-digit number. Find 100 more or 100 less than a given three-digit number. (MP7) | • Skip Count<br>• Place Value<br>• Number Chart<br>• Number 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.<br>– Spin and Solve |
| 2.2.2 2. Fluently add and subtract within 20. (MP7) | • Songs: Fact Families; Doubles<br>• Subtraction Patterns<br>• Addition Facts to 20 | • Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10.<br>– The Three Little Bears<br>– Fact Family Bingo<br>– A Graph of Fact Families<br>– Bean Facts<br>– Draw a Picture<br>– Addition<br>– Number Pyramid<br>– Subtraction Sentences<br>– Model the Story<br>– Fact Families |
| **3. Represent proportional relationships in mathematical and real-world situations, using graphs, diagrams, tables, symbols and verbal descriptions, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities.** | | |
| 2.3.1 1. Identify, create and describe simple number patterns involving repeated addition or subtraction, skip counting and arrays of objects such as counters or tiles. Use patterns to solve problems in various contexts. (MP1, MP7, MP8) {CC1, CC2} | • Number Patterns<br>• Number Sequences and Patterns<br>• Patterns of 2-digit Numbers<br>• Patterns of 3-digit Numbers<br>• Addition Patterns<br>• Subtraction Patterns<br>• Skip Count<br>• Logic Game | |
| 2.3.2 2. Count collections of objects using groups of 10's and 100's to 1,000. Represent the counting strategy and the total using words, symbols and pictures. (MP1) {CC1, CC2} | • Song: Skip Counting<br>• Book: Jump Rope Rhymes<br>• Make and Count Groups<br>• Skip Count<br>• Skip Count by 10<br>• Number Sequences and Patterns | • Counting within 1000.pdf: Count within 1,000; skip-count by 5s, 10s, and 100s.<br>– Chart Patterns<br>– 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<br>– 900 Chart |

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| **3. Represent proportional relationships in mathematical and real-world situations, using graphs, diagrams, tables, symbols and verbal descriptions, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities *continued*.** | | |
| 2.3.3 3. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write a numerical equation to express the total as a sum of equal addends. (MP8) {CC2} | • Addition<br>• Multiply Using Repeated Addition<br>• Multiply Using Arrays | |
| **4. Use concepts and properties of equivalence and relational thinking to represent and compare numerical expressions, algebraic expressions or equations.** | | |
| 2.4.1 1. Compare and order whole numbers up to 1,000. (MP4) | • Greater Than, Less Than (3-digit Numbers)<br>• 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.<br>– More or Less<br>– The Hands Have It!<br>– Larger or Smaller?<br>– Comparing Number Cards<br>– Number Cards<br>– <,>, = Cards<br>– Greater Than, Less Than, Equal To |
| 2.4.2 2. Interpret number sentences involving addition, subtraction and unknowns represented by letters. (MP4) | • Addition Sentences<br>• Subtraction Sentences | |
| 2.4.3 3. Apply mental strategies and algorithms based on knowledge of place value and equality to add and subtract two-digit numbers. Strategies may include decomposition, expanded notation and partial sums and differences. (MP1, MP7) | • Place Value<br>• Addition and Subtraction Relationship<br>• Commutative Properties of Addition<br>• Addition<br>• Subtraction<br>• Add without Regrouping<br>• Add with Regrouping<br>• Subtract without regrouping<br>• 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.<br>– Addition of Two-Digit Numbers<br>– Tic Tac Toe<br>– Subtraction of Two-Digit Numbers |

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| **4. Use concepts and properties of equivalence and relational thinking to represent and compare numerical expressions, algebraic expressions or equations *continued*.** | | |
| 2.4.4 4. Use number sentences involving addition, subtraction and unknowns to represent given problem situations. Use the relationship of addition and subtraction to find values for the unknowns that make the number sentences true. (MP4) {CC2} | • Addition Sentences<br>• Subtraction Sentences<br>• Addition and Subtraction Fact Families<br>• Missing Addends<br>• Missing Minuends and Subtrahends | |
| **5. Represent and connect mathematical patterns and relationships using verbal descriptions, generalizations, tables and graphs. Use representations to solve mathematical and realworld situations, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities.** | | |
| 2.5.1 1. Identify, create and describe simple number patterns involving repeated addition or subtraction, skip counting and arrays of objects such as counters or tiles. Use patterns to solve problems in various contexts. (MP1, MP7, MP8) {CC1, CC2} | • Number Patterns<br>• Number Sequences and Patterns<br>• Patterns of 2-digit Numbers<br>• Patterns of 3-digit Numbers<br>• Addition Patterns<br>• Subtraction Patterns<br>• Skip Count<br>• Logic Game | |
| 2.5.2 2. Use numeric expressions to describe a visual growing pattern. (MP8) {CC1, CC2} | • Number Patterns<br>• Number Sequences and Patterns<br>• Patterns of 2-digit Numbers<br>• Patterns of 3-digit Numbers<br>• Addition Patterns<br>• Subtraction Patterns<br>• Skip Count<br>• Logic Game | |

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| **5. Represent and connect mathematical patterns and relationships using verbal descriptions, generalizations, tables and graphs. Use representations to solve mathematical and realworld situations, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities *continued*.** | | |
| 2.5.3 3. Use addition and subtraction to create and obtain information from tables, bar graphs and tally charts. (MP5) {CC1, CC2} | • Song: Graphing<br>• Graphing<br>• Bar Graphs<br>• Picture Graphs<br>• 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.<br>– Questions and Answers<br>– Library Book Survey<br>– Playground Survey<br>– Rock Collections<br>– Use Graphs and Tables |
| 2.5.4 4. Skip count by 2s, 5s and 10s from any given number. Skip count from a non-zero number (i.e. 3, 13, 23, 33). (MP7) | • Number Patterns<br>• Number Sequences and Patterns<br>• Addition Patterns<br>• Subtraction Patterns<br>• Skip Count by 2<br>• Skip Count by 5<br>• Skip Count by 10<br>• Logic Game | |
| **6. Investigate measurement using a variety of tools, units, systems, processes and techniques, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities. Explain and reason with attributes, estimations and formulas. Justify decisions and consider the reasonableness of results.** | | |
| 2.6.1 1. Estimate lengths using units of inches, feet, centimeters and meters. (MP1, MP2, MP5) {CC2} | • Song: Measuring Plants<br>• Length<br>• Standard Units of Length<br>• Measurement Tools | • Estimating lengths.pdf: Estimate lengths using units of inches, feet, centimeters, and meters.<br>– Ready, Set, Measure<br>– Treasure Hunt<br>– Let's Measure in Centimeters!<br>– Let's Measure in Inches!<br>– Measuring Perimeter |

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| **6. Investigate measurement using a variety of tools, units, systems, processes and techniques, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities. Explain and reason with attributes, estimations and formulas. Justify decisions and consider the reasonableness of results *continued*.** | | |
| 2.6.2 2. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks and measuring tapes. (MP5) {CC1, CC2} | • Song: Measuring Plants<br>• Book: Birds at My House<br>• Length<br>• Measurement Tools<br>• 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.<br>– Ready, Set, Measure<br>– Treasure Hunt<br>– Centimeter Ruler<br>– Inch Ruler<br>– Let's Measure in Centimeters!<br>– Let's Measure in Inches! |
| 2.6.3 3. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. Relate addition and subtraction to length. (MP5) {CC2} | • Length<br>• 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.<br>– Ready, Set, Measure<br>– Treasure Hunt |
| 2.6.4 4. 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 whole-number sums and differences within 100 on a number line diagram. (MP1, MP4, MP5) | • Number Line<br>• Length | |
| **7. Analyze characteristics of geometric shapes to make mathematical arguments and justifications about geometric relationships. Use visualization and geometric modeling to solve problems, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities.** | | |
| 2.7.1 1. Classify two- and three dimensional figures according to the number and shape of faces and the number of sides, edges and vertices (corners). (MP1, MP2) {CC1, CC2} | • Songs: Shapes, Shapes, Shapes; Corners and Sides; Kites<br>• Book: The Shape of Things<br>• Space Shapes<br>• World Shapes<br>• Geoboard | |

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| **7. Analyze characteristics of geometric shapes to make mathematical arguments and justifications about geometric relationships. Use visualization and geometric modeling to solve problems, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities *continued*.** | | |
| 2.7.2 2. Sketch basic two-dimensional shapes, such as squares, circles, triangles, rectangles, trapezoids, hexagons. (MP5) {CC2} | • Songs: Shapes, Shapes, Shapes; Corners and Sides; Kites<br>• Book: The Shape of Things<br>• Space Shapes<br>• World Shapes<br>• Geoboard | • 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.<br>– Making Shapes<br>– Shapes Review |
| **8. Develop mental images and spatial sense of quantity, shape, location and orientation to make estimates, distinguish patterns and reason with relationships. Apply concepts and properties of space, tools of representation, processes of reasoning and communicate solutions.** | | |
| 2.8.1 1. Describe the location of an object in relation to another object. (MP1, MP6) {CC2} | • Songs: Position Cat; Get Over the Bugs<br>• Book: Up In the Air<br>• Position<br>• Over, Under, Above, Below<br>• Inside, Outside, Between<br>• Above, Below, Next to, On | |
| 2.8.2 2. Estimate sums and differences of two-digit numbers. (MP1) | • Song: At the Market<br>• Logic Games | |
| 2.8.3 3. Given a three-digit number, mentally find 10 more or 10 less; 100 more or 100 less than the number; justify reasoning by referencing a model. (MP2, MP3) | • Skip Count<br>• Place Value<br>• Number Chart<br>• Number 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.<br>– Spin and Solve |
| 2.8.4 4. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. (MP8) | • Song: Fractions<br>• Fractions of Regions | |

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| **8. Develop mental images and spatial sense of quantity, shape, location and orientation to make estimates, distinguish patterns and reason with relationships. Apply concepts and properties of space, tools of representation, processes of reasoning and communicate solutions *continued*.** | | |
| 2.8.5 5. 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. (MP1, MP7) | • Song: Fractions<br>• Books: Halves and Fourths and Thirds; The Fraction Twins<br>• Fractions<br>• Label Parts of Fractions<br>• Fractions of Regions<br>• Fractions of Groups | • 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.<br>– Frenzied Fraction Fun<br>– Fabulous Fractions |
| 2.8.6 6. Draw the line of symmetry on a 2D regular polygon and simple 2D figures. (MP5) | • Song: Symmetry<br>• Symmetry<br>• Symmetry and Me | • Congruence, Symmetry, and Fractions.pdf: Explore congruence, symmetry, and fractions.<br>– Shape Hunt<br>– Origami Snowflakes<br>– Folded Paintings |
| **9. Identify, formulate and investigate statistical questions by collecting data considering cultural perspectives, analyzing and interpreting data and communicating the results.** | | |
| 2.9.1 1. Notice and wonder about data rich situations to refine, direct and create statistical investigative questions with teacher guidance. (MP7) | • Books: Milton's Mittens; The Booneville Nine; One More Cat | • Collect and Study Data.pdf: Ask a question. Then collect, organize, and study the data to find an answer. |
| 2.9.2 2. Be informed about what counts as data and understand that people collect data to answer questions and that data can vary (e.g. objects have different colors or sizes). (MP1) | • Songs: Tallying; Graphing<br>• Books: Painting by Number; One More Cat: The Booneville Nine<br>• Tally Marks<br>• Graphs<br>• Make a Table | • Collect and Study Data.pdf: Ask a question. Then collect, organize, and study the data to find an answer. |
| 2.9.3 3. Collect survey data and use given data to consider and decide what data will answer a question; represent the same data as tally marks, drawings, picture graphs, bar graphs, tables and digitally. (MP5) | • Songs: Tallying; Graphing<br>• Books: Painting by Number; One More Cat: The Booneville Nine<br>• Tally Marks<br>• Graphs<br>• Make a Table | • Collect and Study Data.pdf: Ask a question. Then collect, organize, and study the data to find an answer. |

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| **9. Identify, formulate and investigate statistical questions by collecting data considering cultural perspectives, analyzing and interpreting data and communicating the results *continued*.** | | |
| 2.9.4 4. Generate measurement data, including historical and present day ways of measuring from Dakota and Anishinaabe Tribal Nations and other communities, with whole unit lengths (using a variety of tools and the body) and display data on a line plot. (MP 5) | • Song: Measuring Plants<br>• Measurement Tools | • 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.<br>– Measuring Inches<br>– Ready, Set, Measure<br>– Let's Measure in Centimeters!<br>– Let's Measure in Inches! |
| 2.9.5 5. Make predictions using patterns from data visualizations. (MP4, MP7, MP8) | • Songs: Tallying; Graphing<br>• Books: Painting by Number; One More Cat: The Booneville Nine<br>• Tally Marks<br>• Graphs<br>• Make a Table | • Collect and Study Data.pdf: Ask a question. Then collect, organize, and study the data to find an answer. |
| 2.9.6 6. Decide key results that answer students' initial questions to report to others; draw conclusions and construct an argument. (MP3, MP6) | • Songs: Tallying; Graphing<br>• Book: One More Cat<br>• Tally Marks<br>• Graphs<br>• Make a Table | • Collect and Study Data.pdf: Ask a question. Then collect, organize, and study the data to find an answer. |
| **10. Apply and explain the concepts of probability to interpret data and make informed decisions to solve mathematical and real-world problems.** | | |
| 2.10.1 1. Describe the difference between possible and probable. (MP1) | • Song: Probability<br>• Book: Heads or Tails<br>• Probability | |

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| **11. Explore and analyze financial problems using appropriate technology tools. Apply mathematical concepts to make informed decisions about how to earn, track, save, borrow, share and invest money, while considering a range of acceptable solutions as well as constraints which may affect individual and generational wealth, in various cultures, especially in historical and contemporary Dakota and Anishinaabe communities.** | | |
| 2.11.1 1. Calculate how money saved or earned can accumulate into a larger amount over time. (MP8) {CC2} | • Song: Save Your Pennies<br>• Book: Bugs for Sale | |
| 2.11.2 2. Identify pennies, nickels, dimes and quarters. Find the value of a group of coins and determine combinations of coins that equal a given amount, using $ and ¢ symbols appropriately. (MP7) | • Songs: Money; Save Your Pennies<br>• Book: Bugs For Sale<br>• Coin Identification<br>• Coin Value<br>• Quarters<br>• Count Dimes, Nickels, and Pennies<br>• Count Quarters, Dimes, Nickels, and Pennies<br>• Count Nickels and Pennies or Dimes and Pennies<br>• Count Coins<br>• Count Bills and Coins<br>• Equivalent Sums of Money | • Solve money word problems.pdf: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.<br>– Supermarket Hunt<br>– Shopping for My Family<br>– Money Combinations<br>– Money Sums<br>– Pizza Parlor<br>– How Much Back?<br>– Coin Count<br>– Bills and Coins<br>– Let's Count Coins<br>– Money Addition<br>– Change is Good!<br>– Make 45¢ |
| **SCIENCE** | | |
| **Kindergarten** | | |
| **Earth and Space Science** | | |
| 0E.1.1.1.1 Ask questions to obtain information from weather forecasts to prepare for and respond to severe weather. (P: 1, CC: 7, CI: ESS3, ETS2) | • Songs: Precipitation; Storms<br>• Book: Whatever the Weather<br>• Weather Tools<br>• Calendar/Graph Weather | |
| 0E.1.1.1.2 Ask questions about how a person may reduce the amount of natural resources the individual uses. (P: 1, CC: 2, CI: ESS3) | • Songs: Conservation; Pollution Rap<br>• Pollution and Recycling<br>• Care of Water<br>• Care of Earth | • More to Explore Experiment: Recycling<br>• Learning Together: Our Earth |

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| **Earth and Space Science *continued*** | | |
| 0E.2.1.1.2 Make daily and seasonal observations of local weather conditions to describe patterns over time. (P: 4, CC: 1, CI: ESS2) | • Songs: Seasons; Precipitation<br>• Book: That's What I Like: A Book About Seasons<br>• Weather<br>• Calendar/Graph Weather<br>• Weather Patterns<br>• Clouds<br>• Spring<br>• Summer<br>• Fall<br>• Winter | • Learning Together: Weather; The Weather Around Us<br>• Weather Cards |
| **Physical Science** | | |
| 0P.1.2.1.1 Collect and organize observational data to determine the effect of sunlight on Earth's surface. (P: 3, CC: 2, CI: PS3, ETS2) | • Songs: Water; Plants Are Growing; Sun Blues<br>• Sun<br>• Water<br>• Rocks | |
| 0P.2.1.1.1 Sort objects in terms of natural/human-made, color, size, shape, and texture, then communicate the reasoning for the sorting system. (P: 4, CC: 2, CI: PS1) | • Song: All Sorts of Laundry<br>• Book: Buttons, Buttons<br>• Sort<br>• Natural Resources<br>• Materials | • Is It a Natural Resources?.pdf: Practice Identifying natural resources.<br>• By Nature or by People?.pdf: Practice identifying natural resources and resources made by people. |
| 0P.2.2.1.1 Identify and describe patterns that emerge from the effects of different strengths or different directions of pushes and pulls on the motion of an object. (P: 5, CC: 2, CI: PS2) | • Song: Push and Pull<br>• Book: Mr. Mario's Neighborhood<br>• Push and Pull | • Learning Together: How It Works |
| 0P.3.2.2.1 Design and build a structure to reduce the warming effect of sunlight on Earth's surface. (P: 6, CC: 2, CI: PS3, ETS1) | Waterford encourages everyone to have writing, drawing, and art materials available for children's creations. | |

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| **Physical Science *continued*** | | |
| 0P.4.1.1.1 Construct an argument supported by evidence for whether a design solution works as intended to change the speed or direction of an object with a push or a pull. (P: 7, CC: 2, CI: PS2, ETS1) | • Song: Push and Pull<br>• Push and Pull | |
| 0P.4.2.1.1 Communicate design ideas for a structure that reduces the warming effect of sunlight on Earth's surface. (P: 8, CC: 2, CI: PS3, ETS1) | Waterford encourages everyone to have writing, drawing, and art materials available for children's creations. | |
| **Life Science** | | |
| 0L.1.2.1.2 Make observations of plants and animals to compare the diversity of life in different habitats. (P: 3, CC: 1, CI: LS4) | • Songs: Animal Bodies; Four Ecosystems<br>• Books: Animal Bodies; Where in the World Would You Go Today?<br>• Ecosystems<br>• Animal Bodies<br>• Animal Behavior | • Learning Together: Places on Earth |
| 0L.2.1.1.3 Record and use observations to describe patterns of what plants and animals (including humans) need to survive. (P: 4, CC: 1, CI: LS1) | • Songs: Water; Food From Plants<br>• Books: Mela's Water Pot; Everybody Needs to Eat<br>• Sun<br>• Plants<br>• Water<br>• Plants and Animals Need Air<br>• Healthy Plants' Needs | • More to Explore Experiment: Water for Plants<br>• Learning Together: Green and Growing |
| 0L.3.1.1.1 Develop a simple model to represent the relationship between the needs of different plants and animals (including humans) and the places they live. (P: 2, CC: 4, CI: LS2) | • Song: Four Ecosystems<br>• Book: Where in the World Would You Go Today?<br>• Oceans<br>• Mountains<br>• Deserts<br>• Rainforests | • Learning Together: Our Earth |

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| **Grade 1** | | |
| **Earth and Space Science** | | |
| 1E.2.2.1.1 Use quantitative data to identify and describe patterns in the amount of time it takes for Earth processes to occur and determine whether they occur quickly or slowly. (P: 5, CC: 7, CI: ESS1) | • Songs: The Four Seasons; Rock Cycle<br>• Books: That's What I Like: A Book About Seasons; Whatever the Weather; Fossils Under Our Feet<br>• Rock Cycle<br>• Fossils<br>• Spring<br>• Summer<br>• Fall<br>• Winter<br>• Water | • More to Explore Experiment: Rocks |
| 1E.4.1.1.1 Construct an argument based on observational evidence for how plants and animals (including humans) can change the non-living aspects of the environment to meet their needs. (P: 7, CC: 4, CI: ESS2) | • Books: Winter Snoozers; Birds at my House; The Old Maple Tree; Turtle's Pond | |
| 1E.4.1.2.1 Construct an argument with evidence to evaluate multiple solutions designed to slow or prevent wind or water from changing the shape of the land. (P: 7, CC: 7, CI: ESS2, ETS2) | Waterford encourages everyone to have writing, drawing, and art materials available for children's creations. | |
| 1E.4.2.1.1 Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment. (P: 8, CC: 4, CI: ESS3) | • Songs: Conservation; Pollution Rap<br>• Pollution and Recycling<br>• Care of Water<br>• Care of Earth | • More to Explore Experiment: Recycling<br>• Learning Together: Our Earth |
| **Physical Science** | | |
| 1P.1.2.1.1 Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate. (P: 3, CC: 2, CI: PS4) | • Song: Sound<br>• Book: What Sounds Say<br>• Sound Waves | • More to Explore Experiment: Sound |

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| **Physical Science *continued*** | | |
| 1P.2.1.1.1 Identify and describe patterns obtained from testing different materials and determine which materials have the properties that are best suited for producing and/or transmitting sound. (P: 4, CC: 1, CI: PS1, ETS1) | • Song: Sound<br>• Book: What Sounds Say<br>• Sound Waves<br>• Materials | • More to Explore Experiment: Sound |
| 1P.3.2.2.1 Design and build a device that uses light or sound to solve the problem of communicating over a distance. (P: 6, CC: 6, CI: PS4, ETS1, ETS2) | • Song: Inventing<br>• Books: I Want to Be a Scientist Like Thomas Edison; Inventions All Around | |
| 1P.4.2.2.1 Communicate solutions that use materials to provide shelter, food, or warmth needs for communities including Minnesota American Indian Tribes and communities. (P: 8, CC: 2, CI: PS1, ETS2) | • Song: Four Ecosystems<br>• Book: Where in the World Would You Go Today?<br>• Oceans<br>• Mountains<br>• Deserts<br>• Rainforests | • Learning Together: Our Earth |
| **Life Science** | | |
| 1L.1.1.1.1 Ask questions based on observations about the similarities and differences between young plants and animals and their parents. (P: 1, CC: 2, CI: LS3) | • Books: George and Jack; A Seed Grows<br>• Build Knowledge: Mine | • More to Explore Experiment: Traits |
| 1L.3.1.1.1 Develop a simple model based on evidence to represent how plants or animals use their external parts to help them survive, grow, and meet their needs. (P: 2, CC: 6, CI: LS1) | • Books: I Wish I Had Ears Like a Bat; Animal Bodies; Fawn Eyes<br>• Deserts | |
| 1L.3.2.2.2 Plan and 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. (P: 6, CC: 6, CI: LS1, ETS2) | • Books: I Wish I Had Ears Like a Bat; Animal Bodies; Fawn Eyes<br>• Deserts | |

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| **Life Science *continued*** | | |
| 1L.4.2.1.2 Obtain information using various features of texts and other media to determine patterns in the behavior of parents and offspring that help offspring survive. (P: 8, CC: 1, CI: LS1) | • Song: Animal Bodies<br>• Animal Behavior<br>• Animal Bodies | |
| **Grade 2** | | |
| **Earth and Space Science** | | |
| 2E.2.1.1.1 Represent data to describe typical weather conditions expected during a particular season. (P: 4, CC: 1, CI: ESS2) | • Songs: Seasons; Precipitation<br>• Book: That's What I Like: A Book About Seasons<br>• Weather<br>• Calendar/Graph Weather<br>• Weather Patterns<br>• Clouds<br>• Spring<br>• Summer<br>• Fall<br>• Winter | • Learning Together: Weather; The Weather Around Us<br>• Weather Cards |
| 2E.2.1.1.2 Analyze data from tests of objects designed to reduce the impacts of weather-related hazards and compare the strengths and weaknesses of how each performs. (P: 4, CC: 2, CI: ESS3, ETS1) | • Songs: Precipitation; Storms<br>• Book: Whatever the Weather<br>• Weather Tools<br>• Calendar/Graph Weather | |
| 2E.4.2.1.1 Obtain and use information from multiple sources to identify where water is found on Earth. (P: 8, CC: 1, CI: ESS2) | • Songs: Water; Uses of Water; Precipitation; Water IsAll Around<br>• Water Sources<br>• Water<br>• Water Cycle<br>• Care of Water<br>• States of Water<br>• Heat Changes Water | |

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| **Life Science *continued*** | | |
| 2E.4.2.1.2 Obtain and use information from multiple sources, including electronic sources, to describe climates in different regions of the world. (P: 8, CC: 1, CI: ESS2) | • Song: Four Ecosystems<br>• Book: Where in the World Would You Go Today?<br>• Oceans<br>• Mountains<br>• Deserts<br>• Rainforests | • Learning Together: Our Earth |
| **Physical Science** | | |
| 2P.1.1.1.1 Ask questions about an object's motion based on observation that can be answered by an investigation. (P: 1, CC: 1, CI: PS2) | • Song: Push and Pull<br>• Book: Mr. Mario's Neighborhood<br>• Push and Pull | • Learning Together: How It Works |
| 2P.1.2.1.1 Plan and conduct an investigation to describe how heating and cooling affects different kinds of materials based upon their observable properties. (P: 3, CC: 1, CI: PS1) | • Book: Warm Soup for Dedushka<br>• Changes in Matter<br>• Movement of Heat<br>• States of Water<br>• Materials | |
| 2P.2.2.1.1 Identify and predict quantitative patterns of the effects of balanced and unbalanced forces on the motion of an object. (P: 5, CC: 1, CI: PS2) | • Song: Push and Pull<br>• Book: Mr. Mario's Neighborhood<br>• Push and Pull | • Learning Together: How It Works |
| 2P.3.1.1.1 Develop a simple diagram or physical model to illustrate how some changes caused by heating or cooling can be reversed and some cannot. (P: 2, CC: 2, CI: PS3) | • Books: Warm Soup for Dedushka; Pancakes Matter<br>• Changes in Matter<br>• Movement of Heat | |
| 2P.4.2.2.1 Obtain information and communicate how Minnesota American Indian Tribes and communities and other cultures apply knowledge of the natural world in determining which materials have the properties that are best suited for an intended purpose. (P: 8, CC: 2, CI: PS1, ETS1) | • Book: Warm Soup for Dedushka<br>• Changes in Matter<br>• Movement of Heat<br>• States of Water<br>• Materials | |

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| **Life Science** | | |
| 2L.3.2.2.1 Engineer a device that mimics the structures and functions of plants or animals in seed dispersal. (P: 6, CC: 6, CI: LS2, ETS1) | • Books: The Bee's Secret; The Old Maple Tree | |
| 2L.4.1.1.1 Construct an argument with evidence that evaluates how in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all. (P: 7, CC: 2, CI: LS4, ETS2) | • Song: Four Ecosystems<br>• Books: Where in the World Would You Go Today?; I Want to Be a Scientist Like Alexander Von Humboldt<br>• Oceans<br>• Mountains<br>• Deserts<br>• Rainforests | |

## 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



## 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; 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

*Many of these songs are available on the Waterford.org YouTube channel.*

### WEEKLY HOMELINK NEWSLETTERS

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

### MATH HOMELINK NEWSLETTERS

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

### SCIENCE HOMELINK NEWSLETTERS

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

### 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

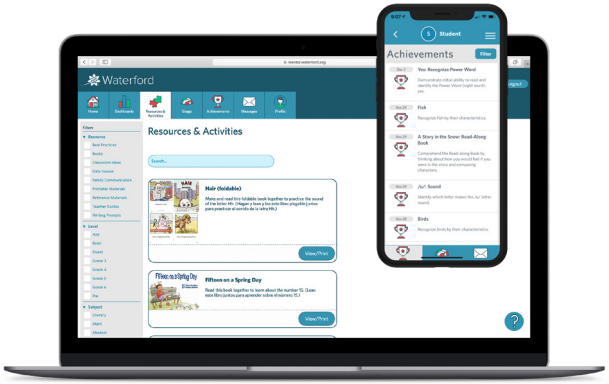
Sum Up: Remember Order, Sum Up: Remember Details, Peek at the Story, Guess and Check, Connect to Me, Build Knowledge

#### 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).