

CURRICULUM *Correlation*

*Waterford Reading
Academy:
Math & Science*

100%

*Ohio's Learning
Standards:
Mathematics
2017 & Science
2019*

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

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| MATHEMATICS | | |
| KINDERGARTEN | | |
| COUNTING AND CARDINALITY | | |
| Know number names and the count sequence. | | |
| K.CC.1 Count to 100 by ones and by tens. | <ul style="list-style-type: none"> • Number Songs • Counting Songs • Number Counting • 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 |
| K.CC.2 Count forward within 100 beginning from any given number other than 1. | <ul style="list-style-type: none"> • Count On • Counting Songs | <ul style="list-style-type: none"> • 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.CC.3 Write numerals from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). | <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 |

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| Count to tell the number of objects. | | |
| Understand the relationship between numbers and quantities; connect counting to cardinality using a variety of objects including pennies. K.CC.4a. When counting objects, establish a one-to-one relationship by saying 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. | <ul style="list-style-type: none"> Counting Songs Number Songs Number Counting Order Numbers One-to-one Correspondence Make and Count Groups Number Instruction | <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> Number Walk |
| K.CC.4b. Understand that the last number name said tells the number of objects counted and that the number of objects is the same regardless of their arrangement or the order in which they were counted. | <ul style="list-style-type: none"> Make and Count Groups Number Counting Number Instruction One-to-One Correspondence | <ul style="list-style-type: none"> Object Counting Grouping.pdf: Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. <ul style="list-style-type: none"> Mixed Up Counting |
| K.CC.4c. Understand that each successive number name refers to a quantity that is one larger. | <ul style="list-style-type: none"> Make and Count Groups Number Counting One-to-One Correspondence Count On by 1 | <ul style="list-style-type: none"> Object Counting Succession.pdf: Understand that each successive number name refers to a quantity that is one larger. <ul style="list-style-type: none"> One by One |
| K.CC.5. Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. | <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 |

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| Compare numbers. | | |
| K.CC.6. Orally identify (without using inequality symbols) whether the number of objects in one group is greater/more than, less/fewer than, or the same as the number of objects in another group, not to exceed 10 objects in each group. | <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 Make and Count Groups | <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> Beans and More More Than Buttons Short Names, Long Names Noodle Necklaces Groups Do Count! More Than, Fewer Than, Equal Which Has More? Fewer Than |
| K.CC.7. Compare (without using inequality symbols) two numbers between 0 and 10 when presented as written numerals. | <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 |
| OPERATIONS AND ALGEBRAIC THINKING | | |
| Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. | | |
| K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds such as claps, acting out situations, verbal explanations, expressions, or equations. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.) | <ul style="list-style-type: none"> Songs: On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction Book: Five Delicious Muffins Make and Count Groups Add Groups Subtract Groups Act Out Addition Act Out Subtraction | <ul style="list-style-type: none"> Represent addition and subtraction with objects. pdf: Represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations. <ul style="list-style-type: none"> Addition Cubes Addition Stories Going Fishing Let's Count On Act it out Stories Manipulative Stories |

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| Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from <i>continued</i> . | | |
| K.OA.2 Solve addition and subtraction problems (written or oral), and add and subtract within 10 by using objects or drawings to represent the problem. | <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 | <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 |
| K.OA.3. Decompose numbers and record compositions for numbers less than or equal to 10 into pairs in more than one way by using objects and, when appropriate, drawings or equations. | <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 |
| K.OA.4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or, when appropriate, an equation. | <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? |

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| Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from <i>continued</i> . | | |
| K.OA.5. Fluently add and subtract within 5. | <ul style="list-style-type: none"> Songs: On the Bayou; Bakery Subtraction; Subtract Those Cars; Circus Subtraction Book: Five Delicious Muffins Add Groups Subtract Groups Minuends Sums Act Out Addition Act Out Subtraction | |
| NUMBER AND OPERATIONS IN BASE TEN | | |
| Work with numbers 11-19 to gain foundations for place value. | | |
| K.NBT.1 Compose and decompose numbers from 11 to 19 into a group of ten ones and some further ones by using objects and, when appropriate, drawings or equations; understand that these numbers are composed of a group of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. | <ul style="list-style-type: none"> Place Value | <ul style="list-style-type: none"> Tens and ones.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 |
| MEASUREMENT AND DATA | | |
| Identify, describe, and compare measurable attributes. | | |
| K.MD.1 Identify and describe measurable attributes (length, weight, and height) of a single object using vocabulary terms such as long/short, heavy/light, or tall/short. | <ul style="list-style-type: none"> Song: Measuring Plants Length | <ul style="list-style-type: none"> Measurable attributes.pdf: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. <ul style="list-style-type: none"> Filling Table Order It Up Straw Rulers Measuring Walk Heavy or Light Make A Balance Measurable Attributes |

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| Identify, describe, and compare measurable attributes <i>continued</i>. | | |
| K.MD.2 Directly compare two objects with a measurable attribute in common to see which object has “more of” or “less of” the attribute, and describe the difference. For example, directly compare the heights of two children, and describe one child as taller/shorter. | <ul style="list-style-type: none"> • Songs: Let’s Compare; 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 |
| Classify objects and count the number of objects in each category. | | |
| K.MD.3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. The number of objects in each category should be less than or equal to ten. Counting and sorting coins should be limited to pennies. | <ul style="list-style-type: none"> • Songs: Same and Different; All Sorts of Laundry • Book: Buttons, Buttons • Match • 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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| GEOMETRY | | |
| Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). | | |
| K.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. | <ul style="list-style-type: none"> Songs: Position Cat; Kites; Get Over the Bugs; Shapes, Shapes, Shapes Books: The Shape of Things; Imagination Shapes; Up In the Air Position Over, Under, Above, Below Inside, Outside, Between Circle, Square, Triangle, Rectangle Star, Semicircle, Octagon, Oval, Rhombus Simple Shapes Solid Shapes World Shapes Above, Below, Next to, On | <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> Shapes Scavenger Hunt |
| K.G.2. Correctly name shapes regardless of their orientations or overall size. | <ul style="list-style-type: none"> Songs: Kites; Shapes, Shapes, Shapes Books: The Shape of Things; Imagination Shapes Circle, Square, Triangle, Rectangle Star, Semicircle, Octagon, Oval, Rhombus Simple Shapes Solid Shapes World 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.G.3. Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid"). | <ul style="list-style-type: none"> Solid Shapes Space Shapes Simple 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 |
| Describe, compare, create, and compose shapes. | | |
| K.G.4. Describe and compare two- or three-dimensional shapes, in different sizes and orientations, using informal language to describe their commonalities, differences, parts, and other attributes. | <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"> 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 |

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| Describe, compare, create, and compose shapes <i>continued</i> . | | |
| K.G.5. Model shapes in the world by building shapes from components, e.g., sticks and clay balls, and drawing shapes. | <ul style="list-style-type: none"> • Geoboard • Tangrams | <ul style="list-style-type: none"> • Model shapes.pdf: Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. <ul style="list-style-type: none"> - Building Shapes |
| K.G.6. Combine simple shapes to form larger 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 |
| GRADE 1 | | |
| OPERATIONS AND ALGEBRAIC THINKING | | |
| Represent and solve problems involving addition and subtraction. | | |
| 1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. | <ul style="list-style-type: none"> • Songs: Fact Families; Doubles • Book: Facts About Families • Addition and Subtraction Fact Families • Addition and Subtraction Relationship | <ul style="list-style-type: none"> • Word problems using subtraction within 20.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 |
| 1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.) | <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 |

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| Understand and apply properties of operations and the relationship between addition and subtraction. | | |
| 1.OA.3 Apply properties of operations as strategies to add and subtract. For example, If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known (Commutative property of addition); to add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$ (Associative property of addition). Students need not use formal terms for these properties. | <ul style="list-style-type: none"> Addition and Subtraction Relationship Addition and Subtraction Fact Families Subtraction Patterns Commutative Property of Addition | <ul style="list-style-type: none"> Strategies to add and subtract.pdf: Apply properties of operations as strategies to add and subtract. <ul style="list-style-type: none"> - Adding and Subtracting Bugs - Concentration - Related Facts |
| 1.OA.4 Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8. | <ul style="list-style-type: none"> Missing Addends Subtraction Patterns Addition and Subtraction Fact Families | <ul style="list-style-type: none"> Understand subtraction as an unknown addend problem.pdf: Understand subtraction as an unknown-addend problem. Add and subtract within 20. <ul style="list-style-type: none"> - Write each subtraction problem as an addition problem and solve it. |
| Add and subtract within 20. | | |
| 1.OA.5 Relate counting to addition and subtraction, e.g., by counting on 2 to add 2. | <ul style="list-style-type: none"> Song: Counting On Book: Circus 20 Skip Count by 2 Count On Make and Count Groups Add Groups Subtract Groups | <ul style="list-style-type: none"> Relate counting to addition and subtraction.pdf: Relate counting to addition and subtraction. <ul style="list-style-type: none"> - Skip Counting Chant - Jump Rope Counting - Related Facts - Count by 2s; 5s; 10s |
| 1.OA.6 Add and subtract within 20, demonstrating fluency with various strategies for addition and subtraction within 10. Strategies may include counting on; making ten, e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$; decomposing a number leading to a ten, e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$; using the relationship between addition and subtraction, e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$; and creating equivalent but easier or known sums, e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$. | <ul style="list-style-type: none"> Songs: Fact Families; Counting On Book: 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 |

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| Work with addition and subtraction equations. | | |
| 1.OA.7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$; $7 = 8 - 1$; $5 + 2 = 2 + 5$; $4 + 1 = 5 + 2$. | <ul style="list-style-type: none"> Song: Fact Families Book: Facts About Families Addition and Subtraction Fact Families Addition and Subtraction Relationship Commutative Property of Addition Addition Sentences Subtraction Sentences Greater Than, Less Than More Than, Fewer Than | <ul style="list-style-type: none"> Equal sign.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 |
| 1.OA.8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations: $8 + ? = 11$; $5 = ? - 3$; $6 + 6 = ?$. | <ul style="list-style-type: none"> Addition Sentences Subtraction Sentences Addition and Subtraction Fact Families Missing Addends Missing Minuends and Subtrahends | |
| NUMBER AND OPERATIONS IN BASE TEN | | |
| Extend the counting sequence. | | |
| 1.NBT.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. | <ul style="list-style-type: none"> Song: Counting On Count On Number Chart | <ul style="list-style-type: none"> Count to 120.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 |

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| Understand place value. | | |
| 1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: 10 can be thought of as a bundle of ten ones — called a “ten”; the numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones; and 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"> • 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.” • 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. • 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). <ul style="list-style-type: none"> - Popsicles to Ten - Toss It - Make a Number - Numbers 10-19 - More Numbers 10-19 |
| 1.NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$. | <ul style="list-style-type: none"> • Place Value • Greater Than, Less Than (2-digit Numbers) | <ul style="list-style-type: none"> • Compare two-digit numbers.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 |

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| Use place value understanding and properties of operations to add and subtract. | | |
| 1.NBT.4. Add within 100, including adding a two-digit number and a one-digit number and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; record the strategy with a written numerical method (drawings and, when appropriate, equations) and explain the reasoning used. Understand that when adding two-digit numbers, tens are added to tens; ones are added to ones; and sometimes it is necessary to compose a ten. | <ul style="list-style-type: none"> Addition Add Tens Add with Manipulatives Add Vertical Squares Add with Beads Addition and Subtraction Relationship Add with Regrouping Concept Add 2-digit and 1-digit Numbers with Regrouping Add 2-digit Numbers without Regrouping Add 2-digit Numbers with Regrouping | <ul style="list-style-type: none"> Adding within 100.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.NBT.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. | <ul style="list-style-type: none"> Song: Skip Counting 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 |
| 1.NBT.6 Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. | <ul style="list-style-type: none"> Subtraction Subtract Tens Subtraction Patterns Subtract Place Value Addition and Subtraction Relationship Use Manipulatives | <ul style="list-style-type: none"> Subtracting in 10s.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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| MEASUREMENT AND DATA | | |
| Measure lengths indirectly and by iterating length units. | | |
| 1.MD.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object. | <ul style="list-style-type: none"> Length Nonstandard Units of Length | <ul style="list-style-type: none"> Order by length.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 |
| 1.MD.2 Express the length of an object as a whole number of length units by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps. | <ul style="list-style-type: none"> Length Nonstandard Units of Length | <ul style="list-style-type: none"> Length Measurement.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 |
| Work with time and money. | | |
| 1.MD.3 Work with time and money. 1.MD.3a Tell and write time in hours and half-hours using analog and digital clocks. | <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 Sequence Times Order Numbers on a Clock | <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 |
| 1.MD.3b Identify pennies and dimes by name and value. | <ul style="list-style-type: none"> Songs: Money; Save Your Pennies Book: Bugs For Sale Coin Identification Count Dimes, Nickels, and Pennies Count Nickels and Pennies or Dimes and Pennies | |

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| Represent and interpret data. | | |
| 1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. | <ul style="list-style-type: none"> Songs: Tallying; Graphing Books: Painting by Number; One More Cat; The Booneville Nine Tally Marks Graphs 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? |
| GEOMETRY | | |
| Reason with shapes and their attributes. | | |
| 1.G.1 Distinguish between defining attributes, e.g., triangles are closed and three-sided, versus non-defining attributes, e.g., color, orientation, overall size; build and draw shapes that possess defining attributes. | <ul style="list-style-type: none"> Songs: Corners and Sides; Kites Geoboard Space Shapes | <ul style="list-style-type: none"> Attributes.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 |
| 1.G.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. Students do not need to learn formal names such as "right rectangular prism." | <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 |

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| Reason with shapes and their attributes <i>continued</i> . | | |
| 1.G.3 Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of or four of the shares in real-world contexts. Understand for these examples that decomposing into more equal shares creates smaller shares. | <ul style="list-style-type: none"> • Song: Fractions • Books: Halves and Fourths and Thirds; Half For You and Half For Me • Equal-part Fractions • Label Parts of Fractions | <ul style="list-style-type: none"> • Equal shares.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 |
| GRADE 2 | | |
| OPERATIONS AND ALGEBRAIC THINKING | | |
| Represent and solve problems involving addition and subtraction. | | |
| 2.OA.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. | <ul style="list-style-type: none"> • Book: Painting by Number; Circus 20 • Addition • 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 |

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| Add and subtract within 20. | | |
| 2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of grade 2, know from memory all sums of two one-digit numbers. | <ul style="list-style-type: none"> Songs: Fact Families; Doubles Subtraction Patterns Addition Facts to 20 | <ul style="list-style-type: none"> Adding and subtracting within 20.pdf: Fluently add and subtract within 20 using mental strategies. By end of grade 2, know from memory all sums of two one-digit numbers. <ul style="list-style-type: none"> Sets of flashcards: Addition—horizontal Subtraction—horizontal Addition—vertical Subtraction—vertical Addition and subtraction—horizontal and vertical |
| Work with equal groups of objects to gain foundations for multiplication. | | |
| 2.OA.3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends. | <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? |
| 2.OA.4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends. | <ul style="list-style-type: none"> Addition Multiply Using Repeated Addition Multiply Using Arrays | |
| NUMBER AND OPERATIONS IN BASE TEN | | |
| Understand place value. | | |
| 2.NBT.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: 2.NBT.1a 100 can be thought of as a bundle of ten tens - called a "hundred." | <ul style="list-style-type: none"> Song: Place Value Place Value Place Value of 3-digit Numbers | <ul style="list-style-type: none"> Thinking of 100 as a bundle of ten 10s.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 |

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| Understand place value <i>continued</i>. | | |
| 2.NBT.1b The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). | <ul style="list-style-type: none"> Song: Place Value Place Value Place Value of 3-digit Numbers | <ul style="list-style-type: none"> Grouping hundreds.pdf: The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). <ul style="list-style-type: none"> My Three-Digit Numbers |
| 2.NBT.2 Count forward and backward within 1,000 by ones, tens, and hundreds starting at any number; skip-count by 5s starting at any multiple of 5. | <ul style="list-style-type: none"> Songs: Skip Counting; Counting Backward; Counting On Books: A Space Adventure; Jump Rope Rhymes Count On Count Down Skip Count Skip Count by 10 Skip Count by 5 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 |
| 2.NBT.3 Read and write numbers to 1,000 using base-ten numerals, number names, expanded form, and equivalent representations, e.g., 716 is $700 + 10 + 6$, or $6 + 700 + 10$, or 6 ones and 71 tens, etc. | <ul style="list-style-type: none"> Sequences of 2-digit Numbers Sequences of 3-digit Numbers Number Chart Place Value | <ul style="list-style-type: none"> Read and write numbers to 1000.pdf: Read and write numbers to 1000 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.NBT.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons. | <ul style="list-style-type: none"> Greater Than, Less Than (3-digit Numbers) Place Value of 3-digit Numbers | <ul style="list-style-type: none"> Less than, equal to, or greater than.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 |

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| Use place value understanding and properties of operations to add and subtract. | | |
| 2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. | <ul style="list-style-type: none"> Place Value Addition and Subtraction Relationship Commutative Properties of Addition Addition Subtraction Add without Regrouping Add with Regrouping Subtract without regrouping Subtract with Regrouping | <ul style="list-style-type: none"> Add and subtract within 100.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 |
| 2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations. | <ul style="list-style-type: none"> Add Two-digit Numbers with Regrouping Commutative Properties of Addition Place Value | <ul style="list-style-type: none"> Adding four 2-digit numbers.pdf: Add up to four two-digit numbers using strategies based on place value and properties of operations. <ul style="list-style-type: none"> Add Four Two-Digit Numbers |
| 2.NBT.7 Add and subtract within 1,000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; record the strategy with a written numerical method (drawings and, when appropriate, equations) and explain the reasoning used. Understand that in adding or subtracting three-digit numbers, hundreds are added or subtracted from hundreds, tens are added or subtracted from tens, ones are added or subtracted from ones; and sometimes it is necessary to compose or decompose tens or hundreds. | <ul style="list-style-type: none"> Place Value Addition and Subtraction Relationship Commutative Properties of Addition Addition Subtraction Add without Regrouping Add with Regrouping Subtract without regrouping Subtract with Regrouping Act Out Addition Act Out Subtraction | <ul style="list-style-type: none"> Add and subtract within 1000.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. <ul style="list-style-type: none"> Choose and Add Mix and Match Addition Expanded Subtraction Subtracting Repeats 999 Prediction Up and Away Regrouping Treasure Hunt Play Ball Squirrel Facts |

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| Use place value understanding and properties of operations to add and subtract <i>continued.</i> | | |
| 2.NBT.8 Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900. | <ul style="list-style-type: none"> Skip Count Place Value Number Chart Number Patterns | <ul style="list-style-type: none"> Mentally adding or subtracting 10 or 100.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 |
| 2.NBT.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. Explanations may be supported by drawings or objects. | <ul style="list-style-type: none"> Addition Subtraction Add with Regrouping Concept Subtract with Regrouping Concept Place Value Number Line Addition and Subtraction Relationship Commutative Properties of Addition Act Out Addition Act Out Subtraction | <ul style="list-style-type: none"> Explaining addition and subtraction strategies.pdf: Explain why addition and subtraction strategies work, using place value and the properties of operations. <ul style="list-style-type: none"> Cube Trails Race for a Flat High/Low Number Cube Throw Lucky Five Hundreds, Tens, Ones Chart Numbers Cards |
| MEASUREMENT AND DATA | | |
| Measure and estimate lengths in standard units. | | |
| 2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. | <ul style="list-style-type: none"> Song: Measuring Plants Book: Birds at My House Length Measurement Tools Standard Units of Length | <ul style="list-style-type: none"> Measurement tools.pdf: Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. <ul style="list-style-type: none"> Ready, Set, Measure Treasure Hunt Centimeter Ruler Inch Ruler Let's Measure in Centimeters! Let's Measure in Inches! |
| 2.MD.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. | <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 |

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| Measure and estimate lengths in standard units <i>continued</i>. | | |
| 2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters. | <ul style="list-style-type: none"> Song: Measuring Plants Length Standard Units of Length Measurement Tools | <ul style="list-style-type: none"> Estimating lengths.pdf: Estimate lengths using units of inches, feet, centimeters, and meters. <ul style="list-style-type: none"> Ready, Set, Measure Treasure Hunt Let's Measure in Centimeters! Let's Measure in Inches! Measuring Perimeter |
| 2.MD.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. | <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 |
| Relate addition and subtraction to length. | | |
| 2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same whole number units, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.) | <ul style="list-style-type: none"> Book: Yangshi's Perimeter Addition Subtraction Length Standard Units of Length | <ul style="list-style-type: none"> One- and two-step word problems within 100. pdf: Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. <ul style="list-style-type: none"> Animal Math Picture Problems Color the Chart Think About it Differently |
| 2.MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole number sums and differences within 100 on a number line diagram. | <ul style="list-style-type: none"> Number Line Length | |

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| Work with time and money. | | |
| 2.MD.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. | <ul style="list-style-type: none"> Songs: Telling Time; Clock Hands Tell Time Tell Time to Five Minutes Tell Time to the Quarter Hour Tell Time to the Minute Tell Time to the Hour Tell Time to the Half-hour | <ul style="list-style-type: none"> Tell and write time.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 |
| 2.MD.8 Solve problems with money. 2.MD.8a Identify nickels and quarters by name and value. | <ul style="list-style-type: none"> Songs: Money; Save Your Pennies Book: Bugs For Sale Coin Identification Coin Value Quarters Count Dimes, Nickels, and Pennies Count Quarters, Dimes, Nickels, and Pennies Count Nickels and Pennies or Dimes and Pennies Make Change Count Coins Count Bills and Coins Equivalent Sums of Money | <ul style="list-style-type: none"> Solve money word problems.pdf: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. <ul style="list-style-type: none"> Supermarket Hunt Shopping for My Family Money Combinations Money Sums Pizza Parlor How Much Back? Coin Count Bills and Coins Let's Count Coins Money Addition Change is Good! Make 45¢ |
| 2.MD.8b Find the value of a collection of quarters, dimes, nickels, and pennies. | <ul style="list-style-type: none"> Songs: Money; Save Your Pennies Book: Bugs For Sale Coin Identification Coin Value Quarters Count Dimes, Nickels, and Pennies Count Quarters, Dimes, Nickels, and Pennies Count Nickels and Pennies or Dimes and Pennies Make Change Count Coins Count Bills and Coins Equivalent Sums of Money | <ul style="list-style-type: none"> Solve money word problems.pdf: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. <ul style="list-style-type: none"> Supermarket Hunt Shopping for My Family Money Combinations Money Sums Pizza Parlor How Much Back? Coin Count Bills and Coins Let's Count Coins Money Addition Change is Good! Make 45¢ |

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| <i>Work with time and money continued.</i> | | |
| 2.MD.8c Solve word problems by adding and subtracting within 100, dollars with dollars and cents with cents (not using dollars and cents simultaneously) using the \$ and ¢ symbols appropriately (not including decimal notation). | <ul style="list-style-type: none"> Songs: Money; Save Your Pennies Book: Bugs For Sale Coin Identification Coin Value Quarters Count Dimes, Nickels, and Pennies Count Quarters, Dimes, Nickels, and Pennies Count Nickels and Pennies or Dimes and Pennies Make Change Count Coins Count Bills and Coins Equivalent Sums of Money | <ul style="list-style-type: none"> Solve money word problems.pdf: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. <ul style="list-style-type: none"> Supermarket Hunt Shopping for My Family Money Combinations Money Sums Pizza Parlor How Much Back? Coin Count Bills and Coins Let's Count Coins Money Addition Change is Good! Make 45¢ |
| <i>Represent and interpret data.</i> | | |
| 2.MD.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit or by making repeated measurements of the same object. Show the measurements by creating a line plot, where the horizontal scale is marked off in whole number units. | <ul style="list-style-type: none"> Measurement Tools | <ul style="list-style-type: none"> Generating measurement data.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. <ul style="list-style-type: none"> Measuring Inches Ready, Set, Measure Let's Measure in Centimeters! Let's Measure in Inches! |
| 2.MD.10 Organize, represent, and interpret data with up to four categories; complete picture graphs when single-unit scales are provided; complete bar graphs when single-unit scales are provided; solve simple put-together, take-apart, and compare problems in a graph. | <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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| GEOMETRY | | |
| Reason with shapes and their attributes. | | |
| 2.G.1 Recognize and identify triangles, quadrilaterals, pentagons, and hexagons based on the number of sides or vertices. Recognize and identify cubes, rectangular prisms, cones, and cylinders. | <ul style="list-style-type: none"> Songs: Shapes, Shapes, Shapes; Corners and Sides; Kites Book: The Shape of Things Space Shapes World Shapes Geoboard | <ul style="list-style-type: none"> Draw shapes.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 |
| 2.G.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. | <ul style="list-style-type: none"> Song: Fractions Fractions of Regions | |
| 2.G.3 Partition circles and rectangles into two, three, or four equal shares; describe the shares using the words halves, thirds, or fourths and quarters, and use the phrases half of, third of, or fourth of and quarter of. Describe the whole as two halves, three thirds, or four fourths in real-world contexts. Recognize that equal shares of identical wholes need not have the same shape. | <ul style="list-style-type: none"> Song: Fractions Books: Halves and Fourths and Thirds; The Fraction Twins Fractions Label Parts of Fractions Fractions of Regions Fractions of Groups | <ul style="list-style-type: none"> Fractions.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 |

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| SCIENCE | | |
| KINDERGARTEN | | |
| EARTH AND SPACE SCIENCE (ESS) | | |
| Topic: Daily and Seasonal Changes | | |
| K.ESS.1: Weather changes are long-term and short-term. | <ul style="list-style-type: none"> • Song: Seasons • Books: That's What I Like: A Book About Seasons; Whatever the Weather • 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 |
| K.ESS.2: The moon, sun and stars can be observed at different times of the day or night. | <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 |
| PHYSICAL SCIENCE (PS) | | |
| Topic: Properties of Everyday Objects and Materials | | |
| K.PS.1: Objects and materials can be sorted and described by their properties. | <ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Materials • Sorting Rocks Experiment • Living or Nonliving • Animal Groups | |
| K.PS.2: Some objects and materials can be made to vibrate to produce sound. | <ul style="list-style-type: none"> • Song: Sound • Book: What Sounds Say • Sound Waves • Sound Exploration | <ul style="list-style-type: none"> • More to Explore Experiment: Sound |

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| LIFE SCIENCE (LS) | | |
| Topic: Physical and Behavioral Traits of Living Things | | |
| K.LS.1: Living things grow and reproduce. Living things are found worldwide. | <ul style="list-style-type: none"> Songs: Animal Bodies; Four Ecosystems; Plants are Growing Books: Animal Bodies; Where in the World Would You Go Today?; A Seed Grows Ecosystems Animal Bodies Animal Behavior Deserts Mountains Oceans Rainforests | <ul style="list-style-type: none"> Learning Together: Places on Earth Learning Together: Green and Growing |
| K.LS.2: Living things have physical traits and behaviors which influence their survival. | <ul style="list-style-type: none"> Songs: Water; Food From Plants; Animal Bodies Books: Mela's Water Pot; Everybody Needs to Eat; I Wish I Had Ears Like a Bat; Animal Bodies; Fawn Eyes Sun Plants Water Plants and Animals Need Air Healthy Plants' Needs Animal Behavior Animal Bodies Deserts | <ul style="list-style-type: none"> More to Explore Experiment: Water for Plants Learning Together: Green and Growing More to Explore Experiment: Traits |
| GRADE 1 | | |
| EARTH AND SPACE SCIENCE (ESS) | | |
| Topic: Sun, Energy, and Weather | | |
| 1.ESS.1: The sun is the principal source of energy. | <ul style="list-style-type: none"> Song: Sun Blues Sun | |
| 1.ESS.2: Water on Earth is present in many forms. | <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 | |

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| PHYSICAL SCIENCE (PS) | | |
| Topic: Motion and Materials | | |
| 1.PS.1: Properties of objects and materials can change. | <ul style="list-style-type: none"> Books: Warm Soup for Dedushka; Pancakes Matter Changes in Matter Heat Changes Water States of Water Matter Experiment | <ul style="list-style-type: none"> More to Explore Experiment: Temperature and Melting |
| 1.PS.2: Objects can be moved in a variety of ways, such as straight, zigzag, circular and back and forth. | <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 |
| LIFE SCIENCE (LS) | | |
| Topic: Basic Needs of Living Things | | |
| 1.LS.1: Living things have basic needs, which are met by obtaining materials from the physical environment. | <ul style="list-style-type: none"> Book: Mela's Water Pot; Everybody Needs to Eat Plants and Animals Need Air Animals Need Water Sun Water Plants Food from Plants | <ul style="list-style-type: none"> More to Explore Experiment: Water for Plants Learning Together: Green and Growing |
| 1.LS.2: Living things survive only in environments that meet their needs. | <ul style="list-style-type: none"> Songs: Animal Bodies; Four Ecosystems Books: Animal Bodies; Where in the World Would You Go Today? Healthy Plants' Needs Oceans Deserts Mountains Rainforests Prairies Animal Bodies Animal Behavior | <ul style="list-style-type: none"> Learning Together: Places on Earth |
| GRADE 2 | | |
| EARTH AND SPACE SCIENCE (ESS) | | |
| Topic: The Atmosphere | | |
| 2.ESS.1: The atmosphere is primarily made up of air. | <ul style="list-style-type: none"> Air Care of Air | |

| OHIO STANDARDS | WATERFORD DIGITAL RESOURCES | WATERFORD TEACHER RESOURCES |
|---|---|--|
| Topic: The Atmosphere <i>continued</i> | | |
| 2.ESS.2: Water is present in the atmosphere. | <ul style="list-style-type: none"> Songs: Water; Uses of Water; Precipitation; Water Is All Around Book: What Is a Cloud? Water Sources Water Water Cycle States of Water Heat Changes Water | |
| 2.ESS.3: Long- and short-term weather changes occur due to changes in energy. | <ul style="list-style-type: none"> Songs: Seasons; Storms Books: That's What I Like: A Book About Seasons; Whatever the Weather; What Is a Cloud? Spring Summer Fall Winter Water | |
| PHYSICAL SCIENCE (PS) | | |
| Topic: Changes in Motion | | |
| 2.PS.1: Forces change the motion of an object. | <ul style="list-style-type: none"> Song: Push and Pull Book: Mr. Mario's Neighborhood Push and Pull Air | |
| LIFE SCIENCE (LS) | | |
| Topic: Interactions within Habitats | | |
| 2.LS.1: Living things cause changes on Earth. | <ul style="list-style-type: none"> Books: Winter Snoozers; Birds at my House; The Old Maple Tree; Turtle's Pond Care of Earth | |
| 2.LS.2: All organisms alive today result from their ancestors, some of which may be extinct. Not all kinds of organisms that lived in the past are represented by living organisms today. | <ul style="list-style-type: none"> Book: A Seed Grows; The Old Maple Tree; Fossils Under Our Feet; A Dinosaur's First Day Animal Life Cycle Observe a Simple System | <ul style="list-style-type: none"> More to Explore Experiment: Traits |

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



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CONTINUAL DEVELOPMENT

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Many of these songs are available on the [Waterford.org YouTube channel](#).