Waterford CURRICULUM

Correlation Criteria: MATHEMATICS STANDARDS OF LEARNING FOR VIRGINIA PUBLIC SCHOOLS—2016 & SCIENCE STANDARDS OF LEARNING—2018 *for* KINDERGARTEN, FIRST AND SECOND GRADES

DECEMBER 2018

CURRICULUM *Correlation*

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OVERVIEW

This document provides a detailed correlation of WATERFORD MATH & SCIENCE *to* MATHEMATICS STANDARDS OF LEARNING FOR VIRGINIA PUBLIC SCHOOLS—2016 & SCIENCE STANDARDS OF LEARNING—2018.

WATERFORD CURRICULUM DETAILS

Waterford Curriculum provides technology-driven curriculum for early learners.

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

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

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

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

EVIDENCE-BASED CURRICULUM

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

STUDENT-CENTERED LEARNING

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

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

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

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

TEACHER RESOURCES

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

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

CORRELATION DESCRIPTION

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

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

CONTINUAL DEVELOPMENT

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

SUPPORT

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

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES*
MATHEMATICS		
KINDERGARTEN		
Number and Number Sense		
K.1 The student will: a) tell how many are in a given set of 20 or fewer objects by counting orally	• Counting Songs • Number Counting • Number Instruction • Counting Puzzle • Make and Count Groups	• Object Counting Grouping.pdf: Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. – Mixed Up Counting
b) read, write, and represent numbers from 0 through 20	• Math Books • Number Books • Number Songs (See titles at end of document.) • Number Instruction • Make and Count Groups	• Writing from 0 to 20.pdf: Write numbers from 0 to 20. Represent a number of objects with a written numeral. – Numbers Practice: 1–20 (one per number) – Numbers 1–5 – Add groups – Count on by 1 – Number Writing Practice: 0–20 (one per number)
K.2 The student, given no more than three sets, each set containing 10 or fewer concrete objects, will: a) compare and describe one set as having more, fewer, or the same number of objects as the other set(s);	• Songs: More Than, Fewer Than; Greater Than, Less Than • Book: For the Birds • Greater Than, Less Than • More Than, Fewer Than • More Than • Fewer Than • Make a Math Story: More Than, Fewer Than	• Greater, less, or equal.pdf: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. – Beans and More – More Than Buttons – Short Names, Long Names – Noodle Necklaces – Groups Do Count! – More Than, Fewer Than, Equal – Which Has More? 1 – Fewer Than – More or Fewer – Which Has More? 2 – Greater or Less – More Than/Fewer Than Flashcard Sets

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

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Number and Number Sense *continued*		
b) compare and order sets from least to greatest and greatest to least	• Songs: More Than, Fewer Than; Greater Than, Less Than • Book: For the Birds • Order Numbers • Greater Than, Less Than • More Than, Fewer Than • More Than • Fewer Than • Make and Count Groups • Make a Math Story: More Than, Fewer Than	
K.3 The student will: a) count forward orally by ones from 0 to 100	• Counting Songs • Number Counting • Number Instruction • Counting Puzzle	• Counting forward.pdf: Count forward beginning with a given number within the known sequence. – Let's Count On – Toss and Count – Count On by 1 – Math Newsletter: Count On – Flashcards
b) count backward orally by ones when given any number between 1 and 10	• Song: Counting Backward • Book: A Space Adventure • Counting Back • Count Down	
c) identify the number after, without counting, when given any number between 0 and100 and identify the number before, without counting, when given any number between 1 and 10	• Counting Songs • Counting Back • Count Down • Count On • Number Line • Number Chart • Number Instruction • Order Numbers	• Counting forward.pdf: Count forward beginning with a given number within the known sequence. – Let's Count On – Toss and Count – Count On by 1 – Math Newsletter: Count On – Flashcards

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Number and Number Sense *continued*		
d) count forward by tens to determine the total number of objects to 100	• Song: Skip Counting • Book: Navajo Beads • Skip Count by 10 • Story Problem Strategies (Skip Count by 10)	• Count to 100 by ones and tens.pdf: Count to 100 by ones and tens. – Missing Numbers – Count On By 1 – Numbers 1–5 – Numbers 6–10 – Math Newsletters – Count By 10s – Numbers 60–69 – I Can Count to 100
K.4 The student will: a) recognize and describe with fluency part-whole relationships for numbers up to 5	• Songs: Addition; Pirates Can Add; On the Bayou; Subtract Those Cars; Bakery Subtraction • Add Groups to 5 • Sums to 5 • Make and Count Groups 1-5 • Dominoes • Subtract From 5 • Minuends to 5	
b) investigate and describe part-whole relationships for numbers up to 10	• Songs: Addition; Pirates Can Add; On the Bayou; Subtract Those Cars; Bakery Subtraction • Add Groups to 10 • Add With Manipulatives • Add With Beads • Dominoes	
K.5 The student will investigate fractions by representing and solving practical problems involving equal sharing with two sharers	• Song: Fractions • Book: Half for You and Half for Me • Halves • Equal-part Fractions	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Computation and Estimation		
K.6 The student will model and solve single-step story and picture problems with sums to 10 and differences within 10, using concrete objects	• Songs: Problem Solving; Addition; Pirates Can Add; On the Bayou; Subtract Those Cars; Bakery Subtraction • Book: Milton's Mittens • Story Problems • Story Problem Strategies • Add With Manipulatives	• Addition and subtraction word problems.pdf: Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. – Additions Stories – Act It Out Stories – Manipulative Stories – Edible Stories – One, Two, Three, Show – Circus Subtraction – Partner Subtraction – Farmer's Market – Green and Speckled Frogs – Cars and Trucks Subtraction – Yummy Subtraction – Act Out Addition – Act Out Subtraction – Addition Newsletter – Subtraction Newsletter – Subtraction Flashcards
Measurement and Geometry		
K.7 The student will recognize the attributes of a penny, nickel, dime, and quarter and identify the number of pennies equivalent to a nickel, a dime, and a quarter	• Song: Save Your Pennies • Coin Identification	
K.8 The student will investigate the passage of time by reading and interpreting a calendar	• Today • Yesterday/Tomorrow	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Measurement and Geometry *continued*		
K.9 The student will compare two objects or events, using direct comparisons, according to one or more of the following attributes: length (longer, shorter), height (taller, shorter), weight (heavier, lighter), temperature (hotter, colder), volume (more, less), and time (longer, shorter).	• Songs: Savanna Size, Measuring Plants • Capacity • Length • Order Size • Big and Little • Tall and Short • Heavy and Light • Size • Match • Tell Time	• Comparing objects.pdf: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. – Filling Table – Order It Up – Straw Rulers – Measuring Walk – Heavy or Light – Make A Balance – Size Scavenger Hunt – Big and Little Sort – Boxes in a Line – Teddy Bear Line-Up – Magazine Sorting – Tall and Short – Big and Little – Tall and Short – Heavy and Light – Small, Medium, Large – Measuring Length – Measurable Attributes
K.10 The student will: a) identify and describe plane figures (circle, triangle, square, and rectangle)	• Songs: Kites; Shapes, Shapes, Shapes • Books: The Shape of Things; Imagination Shapes • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Diamond • Simple Shapes • World Shapes	• Shape recognition.pdf: Correctly name shapes regardless of their orientations or overall size. – Shapes Scavenger Hunt – Shapes and Positioning – Shapes Flashcards
b) compare the size (smaller, larger) and shape of plane figures (circle, triangle, square, and rectangle)	• Songs: Kites; Shapes, Shapes, Shapes • Books: The Shape of Things; Imagination Shapes • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Diamond • Simple Shapes • World Shapes • Similar Figures • Size	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Measurement and Geometry *continued*		
c) describe the location of one object relative to another (above, below, next to) and identify representations of plane figures (circle, triangle, square, and rectangle) regardless of their positions and orientations in space.	• Songs: Positioning; Kites; Get Over the Bugs; Shapes, Shapes, Shapes • Books: Up in the Air; The Shape of Things; Imagination Shapes • Position • Over, Under, Above, Below • Above, Below, Next to, On • Inside, Outside, Between • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Diamond • World Shapes	• Describing objects.pdf: Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. – Shapes Scavenger Hunt
Probability and Statistics		
K.11 The student will : a) collect, organize, and represent data	• Books: Milton's Mittens; One More Cat • Calendar/Graph Weather • Observe a Simple System	
b) read and interpret data in object graphs, picture graphs, and tables	• Books: Milton's Mittens; One More Cat • Calendar/Graph Weather • Observe a Simple System	
Patterns, Functions, and Algebra		
K.12 The student will sort and classify objects according to one attribute	• Song; All Sorts of Laundry • Book: Buttons, Buttons • Sort	• Classifying objects.pdf: Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. – Let's Sort – Sort
K.13 The student will identify, describe, extend, create, and transfer repeating patterns	• Song: Train Station Patterns • Patterns • Pattern: AB; ABB; ABC	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
GRADE ONE		
Number and Number Sense		
1,1 The student will: a) count forward orally by ones to 110, starting at any number between 0 and 110	• Count On • Counting Songs • Number Counting	• Count to 120.pdf: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. – Mystery Numbers – I Can Write Numbers to 99 – Numbers 20–29 – Numbers 30–39 – Numbers 40–49 – Numbers 50–59 – Numbers 60–69 – Counting to 89 – Counting Charts: – I Can Count to 50 – I Can Count to 100 – I Can Count to 99 – I Can Count to 120
b) write the numerals 0 to 110 in sequence and out-of-sequence	• Number Instruction	• Count to 120.pdf: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. – Mystery Numbers – I Can Write Numbers to 99 – Numbers 20–29 – Numbers 30–39 – Numbers 40–49 – Numbers 50–59 – Numbers 60–69 – Counting to 89 – Counting Charts: – I Can Count to 50 – I Can Count to 100 – I Can Count to 99 – I Can Count to 120

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Number and Number Sense *continued*		
c) count backward orally by ones when given any number between 1 and 30	• Song: Counting Backward • Book: A Space Adventure • Counting Back • Count Down	
d) count forward orally by ones, twos, fives, and tens to determine the total number of objects to 110	• Song: Skip Counting • Books: Navajo Beads; Jump Rope Rhymes • Skip Count by 2 • Skip Count by 5 • Skip Count by 10 • Story Problem Strategies (Skip Count)	
1.2 The student, given up to 110 objects, will: a) group a collection into tens and ones and write the corresponding numeral	• Song: Place Value • Place Value	• 11-19 broken down.pdf: The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. – Toss It – Make a Number – Numbers Flashcards – Numbers 10–19 – More Numbers 10–19
b) compare two numbers between 0 and 110 represented pictorially or with concrete objects, using the words greater than, less than or equal to	• Song: Greater Than, Less Than • Greater Than, Less Than • More Than, Fewer Than	
c) order three or fewer sets from least to greatest and greatest to least	• Song: Greater Than, Less Than • Greater Than, Less Than • More Than, Fewer Than	
1.3 The student, given an ordered set of ten objects and/or pictures, will indicate the ordinal position of each object, first through tenth	• Ordinal Numbers	
1.4 The student will: a) represent and solve practical problems involving equal sharing with two or four sharers	• Song: Fractions • Book: Halves and Fourths and Thirds • Equal-part Fractions • Label Parts of Fractions	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Number and Number Sense *continued*		
b) represent and name fractions for halves and fourths, using models	• Song: Fractions • Book: Halves and Fourths and Thirds • Equal-part Fractions • Label Parts of Fractions	
1.5 The student, given a familiar problem situation involving magnitude, will: a) select a reasonable order of magnitude from three given quantities: a one-digit numeral, a two-digit numeral, and a three-digit numeral (e.g., 5, 50, 500)	• Number Chart	
b) explain the reasonableness of the choice	• Number Chart	
Computation and Estimation		
1.6 The student will create and solve single-step story and picture problems using addition and subtraction within 20	• Addition and Subtraction Fact Families to 20 • Doubles, Sums to 20 • Subtract Doubles to 20 • Story Problems (Subtraction Patterns) • Story Problem Strategies (Sums to 20)	• Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. – The Three Little Bears – Fact Family Bingo – A Graph of Fact Families – Bean Facts – Draw a Picture – Addition – Number Pyramid – Subtraction Sentences – Model the Story – Fact Families – Add _ and 1–5 – Add _ and 6–10 – Order Property of Addition – Add Doubles +1 to 11 – Add Doubles to 20 – Add Doubles +1 to 21) – Make 10

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Computation and Estimation *continued*		
1.6 The student will create and solve single-step story and picture problems using addition and subtraction within 20 *continued*		• Add and subtract within 20.pdf: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10 *continued*. – Subtract _ from – Subtract – Subtraction Patterns – Fact Families to 10 – Fact Families to 20 – Add and Subtract Doubles to 10 – Add and Subtract Doubles to 20 – Sets of flashcards: – Addition—horizontal – Subtraction—horizontal – Addition—vertical – Subtraction—horizontal
1.7 The student will: a) recognize and describe with fluency part-whole relationships for numbers up to 10	• Addition and Subtraction Fact Families to 10 • Doubles, Sums to 10 • Subtract Doubles to 10 • Make 10 • Story Problems (Subtraction Patterns) • Story Problem Strategies (Sums to 10)	
b) demonstrate fluency with addition and subtraction within 10	• Mental Math Games • Speed Games • Kingdom of Counting	
Measurement and Geometry		
1.8 The student will determine the value of a collection of like coins (pennies, nickels, or dimes) whose total value is 100 cents or less	• Song: Money • Book: Bugs For Sale • Count Dimes, Nickels, and Pennies • Count Nickels and Pennies or Dimes and Pennies • Quarters • Equivalent Sums of Money • Count Quarters, Dimes, Nickels, and Pennies	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Measurement and Geometry *continued*		
The student will investigate the passage of time and: a) tell time to the hour and half-hour, using analog and digital clocks	• Song: Clock Hands • Books: How Long is a Minute?; Mr. Romano's Secret: A Time Story • Tell Time to the Hour • Tell Time to the Half-hour • Sequence Times	• Hours and Half-hours.pdf: Tell and write time in hours and half-hours using analog and digital clocks. – What Comes After, Before, Or Between? – Make Your Own Clock – Learning to Tell Time – Matching Time – What Numbers are Missing? – What Time Is It? – Time of Day – Clock flashcards
b) read and interpret a calendar	• Song: Days in a Month • Calendar	
1.10 The student will use nonstandard units to measure and compare length, weight, and volume	• Song: Measuring Plants • Length • Nonstandard Units of Length • Weight • Capacity	• Length Measurement.pdf: Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. – Measures of Me – Measure a Handful – Estimating Length – A Fruit and Vegetable – Measure Up! – Inches/Centimeters Rulers
1.11 The student will: a) identify, trace, describe, and sort plane figures (triangles, squares, rectangles, and circles) according to number of sides, vertices, and angles	• Songs: Corners and Sides; Kites; Shapes, Shapes, Shapes • Books: The Shape of Things; Imagination Shapes • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Diamond • Simple Shapes • World Shapes	• Describing objects.pdf: Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. – Shapes Scavenger Hunt
b) identify and describe representations of circles, squares, rectangles, and triangles in different environments, regardless of orientation, and explain reasoning	• Songs: Kites; Shapes, Shapes, Shapes • Books: The Shape of Things; Imagination Shapes • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Diamond • Simple Shapes • World Shapes	• Shape recognition.pdf: Correctly name shapes regardless of their orientations or overall size. – Shapes Scavenger Hunt – Shapes and Positioning – Shapes Flashcards

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Probability and Statistics		
1.12 The student will: a) collect, organize, and represent various forms of data using tables, picture graphs, and object graphs	• Songs: Graphing; Tallying • Book: One More Cat • Graphs • Tally Marks • Problem Solving Strategy (Make a Graph)	• Data Categorization.pdf: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. – Ice Cream Sundae – Make A Real Object Graph – Make a Weather Bar Graph – Weather Flashcards – Our Favorite Foods – Make a Graph – Make a table – How Many? – Bugs! – Use Graphs and Tables – How Big Is Your Family?
b) read and interpret data displayed in tables, picture graphs, and object graphs, using the vocabulary more, less, fewer, greater than, less than, and equal to	• Songs: Graphing; Tallying; More Than, Fewer Than; Greater Than, Less Than • Book: One More Cat • Graphs • Tally Marks • Problem Solving Strategy (Make a Graph) • Greater Than, Less Than	• Data Categorization.pdf: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. – Ice Cream Sundae – Make A Real Object Graph – Make a Weather Bar Graph – Weather Flashcards – Our Favorite Foods – Make a Graph – Make a table – How Many? – Bugs! – Use Graphs and Tables – How Big Is Your Family?

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Patterns, Functions, and Algebra		
1.13 The student will sort and classify concrete objects according to one or two attributes	• Song: Venn Diagrams • Book: The Birds, the Beasts, and the Bat • Venn Diagrams	
1.14 The student will identify, describe, extend, create, and transfer growing and repeating patterns	• Song: Train Station Patterns • Logic Game (Number Patterns) • Subtraction Patterns • Problem Solving Strategies (Look for a Pattern)	
1.15 The student will demonstrate an understanding of equality through the use of the equal symbol	• Songs: Greater Than, Less Than; More Than, Fewer Than • Greater Than, Less Than • More Than, Fewer Than	
GRADE TWO		
Number and Number Sense		
2.1 The student will: a) read, write, and identify the place and value of each digit in a three-digit numeral, with and without models	• Song: Place Value • Place Value of 3-digit Numbers • You Be the Teacher (Place Value)	
b) identify the number that is 10 more, 10 less, 100 more, and 100 less than a given number up to 999	• Number Chart • Skip Count • Number Patterns • Patterns of 2-digit Numbers • Patterns of 3-digit Numbers	• 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.
c) compare and order whole numbers between 0 and 999; and	• Number Chart • Number Line • Number Sequences	
d) round two-digit numbers to the nearest ten	• Song: Rounding • Book: The Fable Fair • Round to Tens	
2.2 The student will: a) count forward by twos, fives, and tens to 120, starting at various multiples of 2, 5, or 10	• Song: Skip Counting • Book: Navajo Beads • Skip Count • Skip Count by 2 • Skip Count by 5 • Skip Count by 10	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Number and Number Sense *continued*		
b) count backward by tens from 120	• Song: Counting Backward • Skip Count by 10	
c) use objects to determine whether a number is even or odd.	• Song: Odd Todd and Even Steven	• Odd and even recognition.pdf: Determine whether a group of objects (up to 20) has an odd or even number of members. – Missing Patterns – Counting by 2's – What's My Number?
2.3 The student will: a) count and identify the ordinal positions first through twentieth, using an ordered set of objects	• Song: Ordinals • Book: The Circus Came to Town • Ordinal Numbers	
b) write the ordinal numbers 1st through 20th	• Song: Ordinals • Book: The Circus Came to Town • Ordinal Numbers	
2.4 The student will: a) name and write fractions represented by a set, region, or length model for halves, fourths, eighths, thirds, and sixths	• Song: Fractions • Books: Halves and Fourths and Thirds; The Fraction Twins • Fractions • Label Parts of Fractions • Geoboard • Fractions of Regions • Fractions of Groups • Story Problem Strategies: Fractions of Regions, Fractions of Groups • You Be the Teacher: Fractions of Regions, Fractions of Groups	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Number and Number Sense *continued*		
b) represent fractional parts with models and with symbols	• Song: Fractions • Books: Halves and Fourths and Thirds; The Fraction Twins • Fractions • Label Parts of Fractions • Geoboard • Fractions of Regions • Fractions of Groups • Story Problem Strategies: Fractions of Regions, Fractions of Groups • You Be the Teacher: Fractions of Regions, Fractions of Groups	
c) compare the unit fractions for halves, fourths, eighths, thirds, and sixths, with models	• Song: Fractions • Books: Halves and Fourths and Thirds; The Fraction Twins • Fractions • Label Parts of Fractions • Geoboard • Fractions of Regions • Fractions of Groups • Story Problem Strategies: Fractions of Regions, Fractions of Groups • You Be the Teacher: Fractions of Regions, Fractions of Groups	
Computation and Estimation		
2.5 The student will: a) recognize and use the relationships between addition and subtraction to solve single-step practical problems, with whole numbers to 20	• Addition and Subtraction Relationship • Commutative Properties of Addition • Addition • Subtraction • Act Out Addition • Act Out Subtraction	• Adding or subtracting within 100.pdf: Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. – Addition Flashcards – Addition of Two-Digit Numbers – Tic Tac Toe – Subtraction of Two-Digit Numbers

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Computation and Estimation *continued*		
b) demonstrate fluency with addition and subtraction within 20.	• Addition and Subtraction Relationship • Commutative Properties of Addition • Addition • Subtraction • Add without Regrouping • Add with Regrouping • Subtract without regrouping • Subtract with Regrouping • Speed Games • Mental Math Games	
2.6 The student will: a) estimate sums and differences	• Song: At the Market	
b) determine sums and differences, using various methods	• Addition and Subtraction Relationship • Commutative Properties of Addition • Addition • Subtraction • Add without Regrouping • Add with Regrouping • Subtract without regrouping • Subtract with Regrouping • Speed Games • Mental Math Games	• Explaining addition and subtraction strategies.pdf: Explain why addition and subtraction strategies work, using place value and the properties of operations. – Cube Trails – Race for a Flat – High/Low Number Cube Throw – Lucky Five – Hundreds, Tens, Ones Chart – Numbers Cards
c) create and solve single-step and two-step practical problems involving addition and subtraction	• Song: Problem Solving • Act Out Addition • Act Out Subtraction • Story Problem Strategies: Add without Regrouping; Add with Regrouping • Story Problem Strategies: Subtract without Regrouping; Subtract with Regrouping • Problem Solving Strategies: Model or Act Out	• Solving one and two step word problems within 100. pdf: Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. – Animal Math – Picture Problems – Act it Out – Guess and Check

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Measurement and Geometry		
2.7 The student will: a) count and compare a collection of pennies, nickels, dimes, and quarters whose total value is $2.00 or less	• Songs: Money; Save Your Pennies • 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 • Story Problem Strategies: Make Change, Count Coins, Count Bills and Coins • You Be the Teacher: Make Change	• Money word pr oblems.pdf: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. – Supermarket Hunt – Shopping for My Family – Money Combinations – Money Sums – Pizza Parlor – How Much Back? – Coin Count – Bills and Coins – Let's Count Coins – Money Addition – Change is Good! – Make 45¢
b) use the cent symbol, dollar symbol, and decimal point to write a value of money	• Songs: Money; Save Your Pennies • 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 • Story Problem Strategies: Make Change, Count Coins, Count Bills and Coins • You Be the Teacher: Make Change	• Money word problems.pdf: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. – Supermarket Hunt – Shopping for My Family – Money Combinations – Money Sums – Pizza Parlor – How Much Back? – Coin Count – Bills and Coins – Let's Count Coins – Money Addition – Change is Good! – Make 45¢

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Measurement and Geometry *continued*		
2.8 The student will estimate and measure: a) length to the nearest inch	• Song: Measuring Plants • Length • Nonstandard Units of Length	• Estimating lengths.pdf: Estimate lengths using units of inches, feet, centimeters, and meters. – Ready, Set, Measure – Treasure Hunt – Let's Measure in Centimeters! – Let's Measure in Inches! – Measuring Perimeter
b) weight to the nearest pound	• Weight	
2.9 The student will tell time and write time to the nearest five minutes, using analog and digital clocks	• Songs: Telling Time; Clock Hands • Tell Time • Tell Time to the Hour • Tell Time to the Half-hour • Tell Time to the Quarter Hour • Tell Time to Five Minutes	
2.10 The student will: a) determine past and future days of the week	• Song: Days of the Week • Daily Calendar	
b) identify specific days and dates on a given calendar	• Songs: Days of the Week; Days in a Month • Daily Calendar	
2.11 The student will read temperature to the nearest 10 degrees	• Science Tools • Skip Count by 2	
2.12 The student will: a) draw a line of symmetry in a figure	• Song: Symmetry • Book: Symmetry and Me • Symmetry	
b) identify and create figures with at least one line of symmetry	• Song: Symmetry • Book: Symmetry and Me • Symmetry	
2.13 The student will identify, describe, compare, and contrast plane and solid figures (circles/spheres, squares/cubes, and rectangles/rectangular prisms)	• Songs: Shapes, Shapes, Shapes; Kites; Corners and Sides • Simple Shapes • Solid Shapes	• Shape recognition.pdf: Correctly name shapes regardless of their orientations or overall size. – Shapes Scavenger Hunt – Shapes and Positioning – Shapes Flashcards

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Probability and Statistics		
2.14 The student will use data from probability experiments to predict outcomes when the experiment is repeated	• Song: Probability • Book: Heads or Tales • Probability • Logic Game (Probability Spinner)	
2.15 The student will: a) collect, organize, and represent data in pictographs and bar graphs	• Song: Graphing • Graphing • Picture Graphs • Bar Graphs	• Data categorization.pdf: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. – Ice Cream Sundae – Make a Real Object Graph – Make a Weather Bar Graph – Our Favorite Foods – Make a Graph – Make a Table – How Many? – Use Graphs and Tables – How Big Is Your Family?
b) read and interpret data represented in pictographs and bar graphs	• Song: Graphing • Problem Solving Strategies (Use Graphs and Tables) • Story Problem Strategies (Picture Graphs) • Story Problem Strategies (Bar Graphs)	• Data categorization.pdf: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. – Ice Cream Sundae – Make a Real Object Graph – Make a Weather Bar Graph – Our Favorite Foods – Make a Graph – Make a Table – How Many? – Use Graphs and Tables – How Big Is Your Family?

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Patterns, Functions, and Algebra		
2.16 The student will identify, describe, create, extend, and transfer patterns found in objects, pictures, and numbers	• Song: Train Station Patterns • Subtraction Patterns • Number Sequences and Patterns • Number Patterns • Patterns of 2-digit Numbers • Patterns of 3-digit Numbers	
2.17 The student will demonstrate an understanding of equality through the use of the equal symbol and the use of the not equal symbol	• Song: Greater Than, Less Than • Greater Than, Less Than	• Less than, equal to, or greater than.pdf: Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons. – More or Less – The Hands Have It! – Larger or Smaller? – Comparing Number Cards – Number Cards – <,>, = Cards – Greater Than, Less Than, Equal To

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
SCIENCE		
KINDERGARTEN		
Scientific and Engineering Practices		
K.1 The student will demonstrate an understanding of scientific and engineering practices by a) asking questions and defining problems – ask questions based on observations – identify a problem based on need – make predictions based on observations	• Song: The Scientific Method • Science Investigation • Observe a Simple System	
b) planning and carrying out investigations – make observations to collect data – identify characteristics and properties of objects through observations – measure the relative length and weight of common objects – record information from investigations	• Science Investigation • Observe a Simple System • Length • Weight • Weather • Calendar/Graph Weather • Solid or Liquid	
c) interpreting, analyzing, and evaluating data – describe patterns – classify and/or sequence objects based on a single physical characteristic or property – organize and represent data – read and interpret data in object graphs, picture graphs, and tables	• Science Investigation • Observe a Simple System • Calendar/Graph Weather • Weather Patterns • Graphing • Sort	
d) constructing and critiquing conclusions and explanations – make simple conclusions based on data or observations	• Song: The Scientific Method • Science Investigation • Observe a Simple System	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Scientific and Engineering Practices *continued*		
e) developing and using models – distinguish between a model and an actual object	• Observe a Simple System	
f) obtaining, evaluating, and communicating information – communicate comparative measures (e.g., heavier, lighter, longer, shorter, more, less, hotter, colder) – communicate observations using pictures, drawings, and/or speech	• Songs: Savanna Size, Large, Larger, Largest • Length • Big and Little • Tall and Short • Heavy and Light • Size	
Force, Motion, and Energy		
K.2 The student will investigate and understand that pushes and pulls affect the motion of objects. Key ideas include: a) pushes and pulls can cause an object to move	• Song: Push and Pull • Book: Mr. Mario's Neighborhood • Push and Pull	
b) pushes and pulls can change the direction of an object	• Song: Push and Pull • Book: Mr. Mario's Neighborhood • Push and Pull	
c) changes in motion are related to the strength of the push or pull	• Song: Push and Pull • Book: Mr. Mario's Neighborhood • Push and Pull	
Matter		
K.3 The student will investigate and understand that physical properties of an object can be described. Properties include: a) colors	• Science Investigation • Sort	
b) shapes and forms	• Songs: Kites; Shapes, Shapes, Shapes • Books: The Shape of Things; Imagination Shapes • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Diamond • Simple Shapes • World Shapes	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Matter *continued*		
c) textures and feel	• Song: Five Senses • Touch	
d) relative sizes and weights of objects	• Songs: Savanna Size, Large, Larger, Largest • Length • Big and Little • Tall and Short • Heavy and Light • Size	
K.4 The student will investigate and understand that water is important in our daily lives and has properties. Key ideas include: a) water has many uses	• Song: Water • Books: Mela's Water Pot; Water Is All Around • Water	
b) water can be found in many places	• Song: Water • Book: Water Is All Around • Water • Water Sources	
c) water occurs in different phases	• Song: Water • Book: Water Is All Around • Water	
d) water flows downhill	• Song: Water • Book: Water Is All Around • Water	
Living Systems and Processes		
K.5 The students will investigate and understand that senses allow humans to seek, find, take in, and react or respond to different information. Key ideas include: a) the five basic senses correspond to specific human body structures	• Song: Five Senses • Book: I Wish I Had Ears Like a Bat • Sight • Hearing • Touch • Smell • Taste	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Living Systems and Processes *continued*		
b) senses are used in our daily lives	• Song: Five Senses • Book: I Wish I Had Ears Like a Bat • Sight • Hearing • Touch • Smell • Taste	
K.6 The student will investigate and understand that there are differences between living organisms and nonliving objects. Key ideas include: a) all things can be classified as living or nonliving	• Song: Living and Nonliving • Living or Nonliving	
b) living organisms have certain characteristics that distinguish them from nonliving objects	• Song: Living and Nonliving • Living or Nonliving	
K.7 The student will investigate and understand that plants and animals have basic needs and life processes. Key ideas include: a) living things need adequate food, water, shelter, air, and space to survive	• Books: The Watermelon Seed; A Seed Grows • Plants • Plant or Animal • Animals Need Water • Plants Need Water • Food From Plants • Mammals • Birds • Amphibians • Sun	
b) plants and animals have life cycles	• Song: Plants Are Growing • Plants • Mammals • Amphibians	
c) offspring of plants and animals are similar but not identical to their parents or to one another	• Song: Plants Are Growing • Plants • Mammals	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Earth and Space Systems		
K.8 The student will investigate and understand that light influences temperature on Earth's surfaces and can cause shadows. Key ideas include: a) the sun provides light and warms Earth's surface	• Song: Sun Blues • Sun • Sources of Light	
b) shadows can be produced when sunlight or artificial light is blocked by an object	• Sun • Light Exploration • Properties of Light	
c) objects in shadows and objects in sunlight have different temperatures	• Sun • Heat Sources and Uses	
K.9 The student will investigate and understand that there are patterns in nature. Key patterns include: a) daily weather	• Weather Patterns	
b) seasonal changes	• Song: Seasons • Book: That's What I Like: A Book About Seasons • Spring • Summer • Fall • Winter	
c) day and night	• Sun • Moon • Sun, Moon, and Earth	
K.10 The student will investigate and understand that change occurs over time. Key ideas include: a) natural and human-made things change over time	• Observe a Simple System • Spring • Summer • Fall • Winter	
b) living and nonliving things change over time	• Song: Plants Are Growing • Plants • Observe a Simple System	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Earth and Space Systems *continued*		
c) changes can be observed and measured	• Song: Measuring Plants; Plants Are Growing • Observe a Simple System	
d) changes may be fast or slow	• Song: Plants Are Growing • Book: Follow the Apples!	
Earth Resources		
K.11 The student will investigate and understand that humans use resources. Key ideas include: a) some materials and objects can be used over and over again	• Song: Conservation; Pollution Rap • Pollution and Recycling	
b) materials can be recycled	• Song: Conservation; Pollution Rap • Pollution and Recycling	
c) choices we make impact the air, water, land and living things	• Song: Conservation; Pollution Rap • Pollution and Recycling • Care of Water • Care of Air • Care of Earth	
GRADE ONE		
Scientific and Engineering Practices		
1.1 The student will demonstrate an understanding of scientific and engineering practices by: a) asking questions and defining problems – ask questions and make predictions based on observations – identify a simple problem that can be solved through the development of a new tool or improved object	• Song: The Scientific Method • Book: I Want to Be a Scientist Like Antoni van Leeuwenhoek • Science Investigation • Science Tools	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Scientific and Engineering Practices *continued*		
b) planning and carrying out investigations – with guidance, conduct investigations to produce data – identify characteristics and properties of objects by observations – use tools to measure relative length, weight, volume, and temperature of common objects	• Song: The Scientific Method • Book: Pancakes Matter • Science Investigation • Science Tools • Matter • Gravity • Solid, Liquid, Gas • Experiments: Weather; Ecosystems; Pollution; Plant; Matter; Buoyancy; Density; Health	
c) interpreting, analyzing, and evaluating data – use and share pictures, drawings, and/or writings of observations – describe patterns and relationships – classify and arrange objects based on a single physical characteristic or property – organize and represent various forms of data using tables, picture graphs, and object graphs – read and interpret data displayed in tables, picture graphs, and object graphs, using the vocabulary more, less, fewer, greater than, less than, and equal to	• Song: Graphing • Book: The Birds, the Beasts, and the Bat • Graphs • Venn Diagrams • Weather Patterns • Greater Than, Less Than • Picture Graphs • Bar Graphs • Sort • Experiments: Weather; Ecosystems; Pollution; Plant; Matter; Buoyancy; Density; Health	
d) constructing and critiquing conclusions and explanations – make simple conclusions based on data or observations – recognize unusual or unexpected results	• Song: The Scientific Method • Science Investigation • Experiments: Weather; Ecosystems; Pollution; Plant; Matter; Buoyancy; Density; Health	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Scientific and Engineering Practices *continued*		
e) developing and using models – use physical models to demonstrate simple phenomena and natural processes	• Experiments: Weather; Ecosystems; Pollution; Plant; Matter; Buoyancy; Density	
f) obtaining, evaluating, and communicating information – communicate observations and data using simple graphs, pictures, drawings, numbers, speech and/or writing	• Songs: Graphing; Tallying • Book: One More Cat • Graphs • Tally Marks • Science Tools • Experiments: Light; Sound; Heat; Plants Need Water; Buoyancy	
Force, Motion, and Energy		
1.2 The student will investigate and understand that objects can move in different ways. Key ideas include: a) objects may have straight, circular, spinning, and back-and-forth motions	• Song: Push and Pull • Sound Waves • Push and Pull	
b) objects may vibrate and produce sound	• Song: Sound • Book: What Sounds Say • Sound • Sound Waves • Pitch and Volume	
Matter		
1.3 The student will investigate and understand that objects are made from materials that can be described by their physical properties. Key ideas include: a) objects are made of one or more materials with different physical properties and can be used for a variety of purposes	• Song: Matter • Books: I Want to Be a Scientist Like Wilbur and Orville Wright; Pancakes Matter • Materials • Changes in Matter	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Matter *continued*		
b) when a material is changed in size most physical properties remain the same	• Song: Matter • Books: I Want to Be a Scientist Like Wilbur and Orville Wright; Pancakes Matter • Materials • Changes in Matter	
c) the type and amount of material determine how much light can pass through an object	• Book: I Want to Be a Scientist Like Antoni van Leeuwenhoek • Light Properties	
Living Systems and Processes		
1.4 The student will investigate and understand that plants have basic life needs and functional parts that allow them to survive. Key ideas include: a) plants need nutrients, air, water, light, and a place to grow	• Songs: Plants Are Growing; Conservation • Book: A Seed Grows • Plants Need Water • Healthy Plants' Needs • Plant Experiment • Plants and Animals • Plants and Animals Need Air • Care of Earth	
b) structures of plants perform specific functions	• Songs; Plants Are Growing; Food From Plants • Book: A Seed Grows • Functions of Plant Parts • Uses of Plants • Edible Plant Parts	
c) plants can be classified based on a variety of characteristics	• Song: Food From Plants • Functions of Plant Parts • Edible Plant Parts • Uses of Plants	
1.5 The student will investigate and understand that animals, including humans, have basic life needs that allow them to survive. Key ideas include: a) animals need air, food, water, shelter, and space (habitat)	• Songs: What Animals Eat; Animal Bodies; Food From Plants • Book: Everybody Needs to Eat • Plants and Animals • Animals Need Water • Plants and Animals Need Air	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Living Systems and Processes *continued*		
b) animals have different physical characteristics that perform specific functions	• Song: Animal Bodies • Books: Animal Bodies; I Want to Be a Scientist Like Carl Linnaeus • Herbivores, Carnivores, and Omnivores • Animal Bodies • Animal Tracks • Animal Teeth • Animal Behavior • Animal Groups • Nature Detective	
c) animals can be classified based on a variety of characteristics	• Songs: Animal Bodies; What Animals Eat • Books: Animal Bodies; I Want to Be a Scientist Like Carl Linnaeus • Animal Tracks • Animal Teeth • Herbivores, Carnivores, and Omnivores • Animal Bodies • Animal Behavior • Animal Groups • Nature Detective	
Earth and Space Systems		
1.6 The student will investigate and understand that there is a relationship between the sun and Earth. Key ideas include: a) the sun is the source of energy and light that warms the Earth's land, air, and water	• Songs: Conservation; Sun Blues • Sun • Earth • Care of Earth • Sun, Moon, and Earth	
b) the sun's relative position changes in the Earth's sky throughout the day	• Sun, Moon, and Earth	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Earth and Space Systems *continued*		
1.7 The student will investigate and understand that there are weather and seasonal changes. Key ideas include: a) changes in temperature, light, and precipitation occur over time	• Songs: Precipitation; Seasons • Book: That's What I Like: A Book About Seasons • Book: Whatever the Weather • Weather • Weather Patterns • Spring • Summer • Fall • Winter • Weather Affects People and Animals	
b) there are relationships between daily weather and the season	• Book: That's What I Like: A Book About Seasons • Book: Whatever the Weather • Weather Patterns • Spring • Summer • Fall • Winter	
c) changes in temperature, light, and precipitation affect plants and animals, including humans	• Song: Precipitation • Books: That's What I Like: A Book About Seasons; Whatever the Weather • Spring • Summer • Fall • Winter • Weather Affects People and Animals	
Earth Resources		
1.8 The student will investigate and understand that natural resources can be used responsibly. Key ideas include: a) most natural resources are limited	• Song: Conservation • Care of Earth • Care of Water • Care of Air	
b) human actions can affect the availability of natural resources	• Song: Conservation • Care of Earth • Care of Water • Care of Air	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Earth Resources *continued*		
c) reducing, reusing, and recycling are ways to conserve natural resources	• Songs: Pollution Rap; Conservation • Pollution and Recycling • Care of Water • Care of Earth	
GRADE TWO		
Scientific and Engineering Practices		
2.1 The student will demonstrate an understanding of scientific and engineering practices by a) asking questions and defining problems – ask questions that can be investigated – make predictions based on observations and prior experiences – identify a simple problem that can be solved through the development of a new tool or improved object	• Song: The Scientific Method • Book: I Want to Be a Scientist Like Antoni van Leeuwenhoek • Science Investigation • Experiments: Sound; Heat; Light • Weather Tools • Science Tools	
b) planning and carrying out investigations – with guidance, plan and conduct simple investigations to produce data – use appropriate tools to measure length, weight, and temperature of common objects using U.S. Customary units – measure time intervals using proper tools	• Song: The Scientific Method • Experiments: Weather; Plant; Light; Sound; Heat • Measurement Tools	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Scientific and Engineering Practices *continued*		
c) interpreting, analyzing, and evaluating data – organize and represent data in pictographs and bar graphs – read and interpret data represented in pictographs and bar graphs	• Songs: Graphing; Tallying • Graphing • Picture Graphs • Bar Graphs	
d) constructing and critiquing conclusions and explanations – make simple conclusions based on data or observations – distinguish between opinion and evidence – recognize unusual or unexpected results	• Song: The Scientific Method • Science Investigation • Experiments: Weather; Ecosystems; Pollution; Plant; Matter; Buoyancy; Density; Health	
e) developing and using models – use models to demonstrate simple phenomena and natural processes	• Experiments: Weather; Ecosystems; Pollution; Plant; Matter; Buoyancy; Density	
f) obtaining, evaluating, and communicating information – communicate observations and data using simple graphs, drawings, numbers, speech, and/or writing	• Songs: Graphing; Tallying • Book: One More Cat • Graphs • Tally Marks • Science Tools • Experiments: Light; Sound; Heat; Plants Need Water; Buoyancy	
Force, Motion, and Energy		
2.2 The student will investigate and understand that different types of forces may cause an object's motion to change. Key ideas include: a) forces from direct contact can cause an object to move	• Song: Push and Pull • Sound Waves • Forces • Push and Pull	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Force, Motion, and Energy *continued*		
b) some forces, including gravity and magnetism, can cause objects to move from a distance	• Songs: Gravity • Magnets • Gravity • Forces	
c) forces have applications in our lives	• Songs: Gravity; Push and Pull • Gravity • Magnets • Push and Pull	
Matter		
2.3 The student will investigate and understand that matter can exist in different phases. Key ideas include: a) matter has mass and takes up space	• Songs: Matter; Solid or Liquid • Book: Pancakes Matter • Matter • Solid, Liquid, Gas • Changes in Matter	
b) solids, liquids, and gases have different characteristics	• Songs: Matter; Solid or Liquid • Book: Pancakes Matter • Matter • Solid, Liquid, Gas • Changes in Matter	
c) heating and cooling can change the phases of matter	• Songs: Matter; Solid or Liquid • Book: Pancakes Matter • Matter • Solid, Liquid, Gas • Changes in Matter	
Living Systems and Processes		
2.4 The student will investigate and understand that plants and animals undergo a series of orderly changes as they grow and develop. Key ideas include: a) animals have life cycles	• Animal Life Cycle and Growth • Amphibians	
b) plants have life cycles	• Books: The Old Maple Tree; A Seed Grows • Plant Life Cycle and Growth	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Living Systems and Processes *continued*		
2.5 The student will investigate and understand that living things are part of a system. Key ideas include: a) plants and animals are interdependent with their living and nonliving surroundings	• Songs: Food From Plants; What Animals Eat • Plants and Animals • Uses of Plants • Healthy Plants' Needs	
b) an animal's habitat provides all of its basic needs	• Song: What Animals Eat • Wetlands • Prairies • Polar Lands • Animals Need Water	
c) habitats change over time due to many influences	• Wetlands • Prairies	
Earth and Space Systems		
2.6 The student will investigate and understand that there are different types of weather on Earth. Key ideas include: a) different types of weather have specific characteristics	• Song: Precipitation • Book: Whatever the Weather • Weather • Weather Patterns • Weather Affects People and Animals	
b) measuring, recording, and interpreting weather data allows for identification of weather patterns	• Songs: Graphing; Tallying • Graphing • Picture Graphs • Weather Tools • Weather Patterns	
c) tracking weather allows us to prepare for the weather and storms	• Book: Whatever the Weather • Weather Tools • Weather Patterns	

VIRGINIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Earth Resources		
2.8 The student will investigate and understand that plants are important natural resources. Key ideas include: a) the availability of plant products affects the development of a geographic area	• Songs: Natural Resources; Food From Plants • Book: I Want to Be a Scientist Like Alexander von Humboldt • Natural Resources • Uses of Plants • Edible Plant Parts	
b) plants provide oxygen, homes, and food for many animals	• Songs: Natural Resources; Food From Plants; What Animals Eat • Book: I Want to Be a Scientist Like Alexander von Humboldt • Natural Resources • Uses of Plants • Edible Plant Parts • Plants and Animals	
c) plants can help reduce the impact of wind and water	• Song: Natural Resources • Care of Air • Uses of Plants	

WATERFORD *Books and Related Activities*

PRE-MATH & SCIENCE

Math Books

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

Science Books

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

Counting Songs

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

Number Songs

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

BASIC MATH & SCIENCE

Math & Science Books

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

FLUENT MATH & SCIENCE

Math & Science Books

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

ALBUMS

Beginning Math Songs: Volume 1

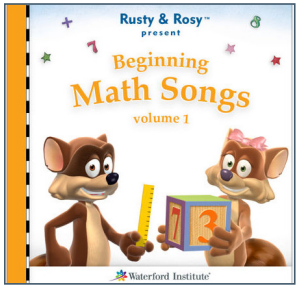
Odd Todd and Even Steven; Salsa Counting; On the Bayou—Addition; Subtract Those Cars; More Than, Fewer Than; A Nice Addition; Marching Band Counting; Doubles 1–5; Multiply by 0

Nursery Songs and Rhymes

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

Beginning Reading Songs

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



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

WEEKLY HOMELINK NEWSLETTERS

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

MATH HOMELINK NEWSLETTERS

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

SCIENCE HOMELINK NEWSLETTERS

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

READING HOMELINK NEWSLETTERS

Alphabet Knowledge

Comprehension and Vocabulary

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

Readiness Skills Letters

Naming parts of the body
First, Next, Last
One-to-One correspondence
Opposites
Look at Details (identify same and different)

Phonological Awareness Letters

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

MY BACKPACK APP

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