Waterford CURRICULUM

Alignment Criteria: MATHEMATICS AND SCIENCE GEORGIA STANDARDS OF EXCELLENCE *for* KINDERGARTEN, FIRST AND SECOND GRADES

NOVEMBER 2016

CURRICULUM *Correlation*

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OVERVIEW

This document provides a detailed correlation of WATERFORD MATH & SCIENCE, CLASSROOM ADVANTAGE *and* MATHEMATICS AND SCIENCE GEORGIA STANDARDS OF EXCELLENCE K–2.

Waterford Math & Science provides young learners comprehensive instruction in the major areas of early math: numbers and operation, geometry, 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.

Classroom Advantage puts Waterford's award-winning, comprehensive online reading curriculum at teachers' fingertips for use with whole- and small-group lessons.

Over the years, 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.

PERSONALIZED LEARNING FOR STUDENTS

Students will experience the curriculum listed in this correlation chart based on their individual needs, as determined by their performance as follows:

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

- Level One (kindergarten)
- Level Two (first grade)
- Level Three (second grade)

Ongoing Assessment: Waterford Math & Science 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.

COLLABORATIVE LEARNING FOR GROUPS

Teachers can easily create and share Playlists of Waterford activities to use with whole and small-group lessons. Tools in Classroom Advantage make it easy and fun to present activities on an interactive whiteboard or other projection device.

In addition, teachers have access to a library of PDF Teacher Materials with lesson plans and reproducibles they can use on and off the computer.

DOCUMENT ORGANIZATION

This document includes a correlation chart with the following columns:

- Georgia Standards: lists the standard.
- Waterford Digital Resources: lists Waterford online activities presented to students during their personalized instruction and also available for collaborative instruction in Classroom Advantage.
- Waterford Print Resources: lists PDF materials and activities that can be viewed in the Waterford Manager by using the Search feature in the Curriculum Tab.

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
MATHEMATICS KINDERGARTEN		
COUNTING AND CARDINALITY (CC)		
CLUSTER #1: KNOW NUMBER NAMES AND THE COUNT SEQUENCE		
MGSEK.CC.1 Count to 100 by ones and by tens.	• Songs (See list at end of document.) • Counting Songs (See list at end of document.) • Books (See list at end of document.) • Number Counting • Count on by 1 • Number Sense and Recognition • Skip Count by 10 • Bug Bits • Moving Target • Number Instruction • Picture and Shape Puzzle • Telephone • Counting Puzzle • Dot to Dot • Number Line	• K.CC.1.pdf: Count to 100 by ones and tens. – Missing Numbers *Practice Pages* – Count On By 1 – Numbers 1-5 – Numbers 6-10 *Math Newsletters* – Count By 10s – Numbers 60-69 – I Can Count to 100
MGSEK.CC.2 Write numbers from 0 to 20. Represent a number of objects with a written numeral (with 0 representing a count of no objects).	• Count on by 1 • Songs (See list at end of document.) • Counting Puzzle • Dot-to-dot • Count On	• K.CC.2.pdf: Count forward beginning with a given number within the known sequence. – Let's Count On – Toss and Count *Practice Pages* – Count On by 1 – Flashcards *Math Newsletter* – Count On
MGSEK.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral (with 0 representing a count of no objects).	• Number Counting • Books (See list at end of document.) • Counting Songs (See list at end of document.) • Moving Target • Number Instruction • Number Recognition and Sense • Picture and Shape Puzzle • Counting Puzzle • Telephone—Number 9	• K.CC.3.pdf: Write numbers from 0 to 20. Represent a number of objects with a written numeral. *Practice Pages* – Numbers Practice – Numbers 1-5 – Add groups – Count on by 1 – Number Writing Practice

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #2: COUNT TO TELL THE NUMBER OF OBJECTS		
MGSEK.CC.4 Understand the relationship between numbers and quantities: connect counting to cardinality.	• Make and Count Groups • Number Counting • Order Numbers • Books (See list at the end of document.) • Counting Songs (See list at the end of document.) • Number Instruction • Number Recognition and Sense • Picture and Shape Puzzle • Counting Puzzle • Dot-to-Dot • Number Chart	
MGSEK.CC.4a a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. (one-to-one correspondence)	• Make and Count Groups • Number Counting • Order Numbers • Books (See list at the end of document.) • Counting Songs (See list at the end of document.) • Moving Target • Number Instruction • Number Recognition and Sense • Picture and Shape Puzzle • Counting Puzzle • Dot-to-Dot • Number Chart	• K.CC.4a.pdf: When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. – Number Walk
MGSEK.CC.4b b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. (cardinality)	• Make and Count Groups • Number Counting • Order Numbers • Books (See list at the end of document.) • Counting Songs (See list at the end of document.) • Moving Target • Number Instruction • Number Recognition and Sense • Picture and Shape Puzzle • Counting Puzzle • Dot-to-Dot • Number Chart	• K.CC.4b.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

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #2: COUNT TO TELL THE NUMBER OF OBJECTS *continued*		
MGSEK.CC.4c c. Understand that each successive number name refers to a quantity that is one larger.	• Number Recognition and Sense • Make and Count Groups • Number Counting • Number Instruction	• K.CC.4c.pdf: Understand that each successive number name refers to a quantity that is one larger. – Hoop Addition
MGSEK.CC.5 Count to answer 'how many?' questions.	• Make and Count Groups • Number Counting • Order Numbers • Books (See list at the end of document.) • Counting Songs (See list at the end of document.) • Number Instruction • Number Recognition and Sense • Dominoes	• K.CC.5.pdf: Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. – Hoop Addition
MGSEK.CC.5a a. Count to answer 'how many?' questions about as many as 20 things arranged in a variety of ways (a line, a rectangular array, or a circle), or as many as 10 things in a scattered configuration.	• Make and Count Groups • Number Instruction • Moving Target • Dominoes • Books (See list at the end of document.) • Counting Songs (See list at the end of document.)	• K.CC.5.pdf: Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. – Hoop Addition
MGSEK.CC.5b b. Given a number from 1-20, count out that many objects.	• Make and Count Groups • Number Counting • Order Numbers • Books (See list at the end of document.) • Counting Songs (See list at the end of document.) • Number Instruction • Number Recognition and Sense • Dominoes	• K.CC.5.pdf: Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. – Hoop Addition
MGSEK.CC.5c c. Identify and be able to count pennies within 20. (Use pennies as manipulatives in multiple mathematical contexts.)	• Make and Count Groups • Number Counting • Order Numbers • Books (See list at the end of document.) • Counting Songs (See list at the end of document.) • Number Instruction • Number Recognition and Sense • Dominoes	• K.CC.5.pdf: Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. – Hoop Addition

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #2: COUNT TO TELL THE NUMBER OF OBJECTS *continued*		
MGSEK.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.	• Greater Than, Less Than • More Than, Fewer Than • More Than • Fewer Than • Make a Math Story: More Than, Fewer Than • Book: For the Birds	• K.CC.6.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 *Practice Pages* – Which Has More? 1 & 2 – Fewer Than – More or Fewer – Greater or Less – More Than/Fewer Than Flashcard Sets
MGSEK.CC.7 Compare two numbers between 1 and 10 presented as written numerals.	• Order Numbers • Book: For the Birds • More Than, Fewer Than • Greater Than, Less Than (1-digit Numbers)	• K.CC.7.pdf: Compare two numbers between 1 and 10 presented as written numerals. – More or Less Spinner – Catch Me If You Can! *Practice Pages* – Greater or Less – Less or Greater – Spinner – Board game – Number cards

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
OPERATIONS AND ALGEGRAIC THINKING (OA)		
CLUSTER #1 UNDERSTAND ADDITION AS PUTTING TOGETHER AND ADDING TO, AND UNDERSTAND SUBTRACTION AS TAKING APART AND TAKING FROM.		
MGSEK.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	• Songs: Addition; Pirates Can Add; On the Bayou; Bakery Subtraction; Circus Subtraction; Subtract Those Cars • Books: Five Delicious Muffins • Add Groups • Subtract Groups • Minuends to 5 • Minuends to 9 • Sums to 4-10 and Subtract from 4-9 • Act Out Addition/Subtraction	• K.OA.2.pdf: Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. – Addition 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 *Practice Pages* – Act Out Addition – Act Out Subtraction – Addition Newsletter – Subtraction Newsletter – Subtraction Flashcards
MGSEK.OA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.	• Songs: Addition; Pirates Can Add; On the Bayou; Bakery Subtraction; Circus Subtraction; Subtract Those Cars • Books: Five Delicious Muffins • Add Groups • Minuends to 5 • Minuends to 9 • Add Groups • Subtract Groups • Sums to 4-10 and Subtract from 4-9 • Act Out Addition/Subtraction • Flower Story Problems • Story Problem Strategies	• K.OA.2.pdf: Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. • Addition 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

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #1 UNDERSTAND ADDITION AS PUTTING TOGETHER AND ADDING TO, AND UNDERSTAND SUBTRACTION AS TAKING APART AND TAKING FROM *continued*.		
MGSEK.OA.2 *continued*		*Practice Pages* – Act Out Addition – Act Out Subtraction – Addition Newsletter – Subtraction Newsletter – Subtraction Flashcards
MGSEK.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation. (drawings need not include an equation)	• Make and Count Groups • Add Groups • Subtract Groups	
MGSEK.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 equation.	• Missing Addends • Kingdom of Counting • Flower Story Problems • Mental Math Games	
MGSEK.OA.5 Fluently add and subtract within 5.	• Songs: Addition; On the Bayou; Pirates Can Add; Bakery Subtraction; Circus Subtraction; Subtract Those Cars • Book: Five Delicious Muffins • Add Groups • Subtract Groups • Sums • Subtract from... • Minuends • Act Out Addition • Act Out Subtraction • Mental Math Games • Speed Games	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
NUMBERS AND OPERATIONS IN BASE TEN (NBT)		
CLUSTER #1 WORK WITH NUMBERS 11-19 TO GAIN FOUNDATIONS FOR PLACE VALUE		
MGSEK.NBT.1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones to understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equations (e.g., 18 = 10 + 8).	• Place Value (10-19)	• K.NBT.1.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. *Practice Pages* – Place Value 11-19 (1 & 2)
MEASUREMENT AND DATA (MD)		
CLUSTER #1: DESCRIBE AND COMPARE MEASURABLE ATTRIBUTES		
MGSEK.MD.1 Describe several measurable attributes of an object, such as length or weight. For example, a student may describe a shoe as, 'This shoe is heavy! It is also really long!'	• Measuring Plants song • Length	• K.MD.1.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 *Practice Pages* – Measureable Attributes

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #1: DESCRIBE AND COMPARE MEASURABLE ATTRIBUTES *continued*		
MGSEK.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.	• Songs: Savanna Size, Measuring Plants • Order Size • Capacity • Length • Big and Little • Tall and Short • Heavy and Light • Size	• K.MD.2.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 *Practice Pages* – Big and Little – Tall and Short – Heavy and Light – Small, Medium, Large – Measuring Length – Measurable Attributes
CLUSTER #2: CLASSIFY OBJECTS AND COUNT THE NUMBER OF OBJECTS IN EACH CATEGORY.		
MGSEK.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Limit category counts to be less than or equal to 10.)	• Songs: Same and Different, All Sorts of Laundry • Book: Buttons, Buttons • Match • Matching • Sort • Logic Game	• K.MD.3.pdf: Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. – Let's Sort – Practice Pages – Sort

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
GEOMETRY (G)		
CLUSTER #1: IDENTIFY AND DESCRIBE SHAPES (SQUARES, CIRCLES, TRIANGLES, RECTANGLES, HEXAGONS, CUBES, CONES, CYLINDERS, AND SPHERES).		
MGSEK.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.	• Over, Under, Above, Below • Inside, Outside, Between • Circle, Square, Triangle, Rectangle • Songs: Position; Kites; Get Over the Bugs; Shapes, Shapes, Shapes; Up in the Air • Books: The Shape of Things; Imagination Shapes • Star, Semicircle, Octagon, Oval, Diamond • Solid Shapes • World Shapes • Above, Below, Next to, On • Story Problem Strategies: Shapes	• K.G.1.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
MGSEK.G.2 Correctly name shapes regardless of their orientations or overall size.	• Book: The Shape of Things; Imagination Shapes • Songs: Kites; Shapes, Shapes, Shapes; Corners and Sides; Congruent Parts • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Diamond • Simple Shapes • Solid Shapes • World Shapes • Congruence • Story Problem Strategies: Shape	• K.G.2.pdf: Correctly name shapes regardless of their orientations or overall size. – Shapes Scavenger Hunt – Shapes and Positioning – Shapes Flashcard
MGSEK.G.3 Identify shapes as two-dimensional (lying in a plane, 'flat') or three-dimensional ('solid').	• Simple Shapes • Solid Shapes • Space Shapes	• K.G.2.pdf: Correctly name shapes regardless of their orientations or overall size. – Shapes Scavenger Hunt – Shapes and Positioning – Shapes Flashcard

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #2: ANALYZE, COMPARE, CREATE, AND COMPOSE SHAPES.		
MGSEK.G.4 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/'corners') and other attributes (e.g., having sides of equal length).	• Song: Corners and Sides • Space Shapes • Congruence • Tangrams • Similar Figures • Story Problem Strategies	
MGSEK.G.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.	• Tangrams	
MGSEK.G.6 Compose simple shapes to form larger shapes. For example, 'Can you join these two triangles with full sides touching to make a rectangle?')	• Tangrams	
MATHEMATICS GRADE 1		
OPERATIONS AND ALGEBRAIC THINKING (OA)		
CLUSTER #1 REPRESENT AND SOLVE PROBLEMS INVOLVING ADDITION AND SUBTRACTIONS.		
MGSE1.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.	• Problem Solving Strategy: Model or Act Out • Flower Story Problems • Story Problem Strategies: Commutative Property of Addition; Subtraction Sentences; Subtraction Relationship; Fact Families	• 1.OA.1.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. *Practice Pages* – Guess and Check – Model the Story

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #1 REPRESENT AND SOLVE PROBLEMS INVOLVING ADDITION AND SUBTRACTIONS *continued*.		
MGSE1.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.	• Story Problem Strategies: Add 3 One-digit Numbers	• 1.OA.2.pdf: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20. *Practice Pages* – Draw a Picture
CLUSTER #2: UNDERSTAND AND APPLY PROPERTIES OF OPERATIONS AND THE RELATIONSHIP BETWEEN ADDITION AND SUBTRACTION.		
MGSE1.OA.3 Apply properties of operations as strategies to add and subtract. Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)	• Subtraction Patterns • Commutative Property of Addition • Kingdom of Counting: Commutative Property of Addition • Mental Math Games: Commutative Property of Addition	
MGSE1.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. Add and subtract within 20.	• Missing Addends • Subtraction Patterns • Kingdom of Counting: Missing Addends, Missing Addends to Sums to 10 • Mental Math Games: Missing Addends Sums to 1	• 1.OA.4.pdf: Understand subtraction as an unknown-addend problem. Add and subtract within 20. *Worksheet* – Write each subtraction problem as an addition problem and solve it.
CLUSTER #3: ADD AND SUBTRACT WITHIN 20.		
MGSE1.OA.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2.)	• Jump Rope Rhymes • Skip Count by 2 • Count On • Counting On song • Circus 20 book	• 1.OA.5.pdf: Relate counting to addition and subtraction. – Skip Counting Chant – Jump Rope Counting *Practice Pages* – Related Facts – Count by 10s – Count by 5s – Count by 2s

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #3: ADD AND SUBTRACT WITHIN 20 *continued.*		
MGSE1.OA.6 Add and subtract within 20.	• Facts about Families book • Fact Families song • Addition Sentences • Subtraction Sentences • Addition and Subtraction Relationship • Kingdom of Counting • Add 3 One-digit Numbers • Subtraction Patterns • Mental Math Games • Missing Addends • Missing Subtrahends • Addition and Subtraction Fact Families • Story Problem Strategies: Fact Families • Speed Games	• 1.OA.6.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 *Practice Pages* – 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 – Subtract _ from – Subtract – Subtraction Patterns – Fact Families to 10 – Fact Families to 20 – Add and Subtract Doubles *Flashcards* – Addition—horizontal and vertical – Subtraction—horizontal and vertical

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #3: ADD AND SUBTRACT WITHIN 20 *continued.*		
MGSE1.OA.6a a. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13—4 = 13—3—1 = 10—1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12—8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).	• Facts about Families book • Fact Families song • Addition Sentences • Subtraction Sentences • Addition and Subtraction Relationship • Kingdom of Counting • Add 3 One-digit Numbers • Subtraction Patterns • Mental Math Games • Missing Addends • Missing Subtrahends • Addition and Subtraction Fact Families • Story Problem Strategies: Fact Families • Speed Games	• 1.OA.6.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 *Practice Pages* – 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 – Subtract _ from – Subtract – Subtraction Patterns – Fact Families to 10 – Fact Families to 20 – Add and Subtract Doubles *Flashcards* – Addition—horizontal and vertical – Subtraction—horizontal and vertical

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #3: ADD AND SUBTRACT WITHIN 20 *continued*.		
MGSE1.OA.6b b. Fluently add and subtract within 10.	• Facts about Families book • Fact Families song • Addition Sentences • Subtraction Sentences • Addition and Subtraction Relationship • Kingdom of Counting • Subtraction Patterns • Mental Math Games • Missing Addends • Missing Subtrahends • Addition and Subtraction Fact Families • Speed Games	• 1.OA.6.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 *Practice Pages* – Addition – Number Pyramid – Fact Families – Add _ and 1–5 – Add _ and 6–10 – Order Property of Addition – Make 10 – Subtract _ from – Subtract – Subtraction Patterns – Fact Families to 10 – Add and Subtract Doubles *Flashcards* – Addition—horizontal and vertical – Subtraction—horizontal and vertical
CLUSTER #4: WORK WITH ADDITION AND SUBTRACTION EQUATIONS.		
MGSE1.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.	• Finding the Difference song • Circus 20 book • Addition Sentences • Subtraction Sentences	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #4: WORK WITH ADDITION AND SUBTRACTION EQUATIONS *continued*.		
MGSE1.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 = _.	• Missing Addends • Missing Minuends and Subtrahends • Mental Math Games	
NUMBERS AND OPERATIONS IN BASE TEN (NBT)		
CLUSTER #1: EXTEND THE COUNTING SEQUENCE.		
MGSE1.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.	• Hooray, Hooray for the One Hundredth Day! book • Count On • Number Recognition and Sense • Number Chart • Counting On song	• 1.NBT.1.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 *Practice Pages* – 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
CLUSTER #2: UNDERSTAND PLACE VALUE		
MGSE1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:	• Place Value: 10-19 song • Place Value of 2-digit Numbers • Expanded Notation • Add with Manipulatives: Add 10 and 6-10 • Flower Story Problems: Add 10 and 6-10 • Number Recognition and Sense	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #2: UNDERSTAND PLACE VALUE *continued*		
MGSE1.NBT.2a a. 10 can be thought of as a bundle of ten ones—called a 'ten'.	• Place Value: 10-19 song • Place Value of 2-digit Numbers • Expanded Notation • Add with Manipulatives: Add 10 and 6-10 • Flower Story Problems: Add 10 and 6-10	• 1.NBT.2a.pdf: 10 can be thought of as a bundle of ten ones—called a "ten." – Popsicles to Ten
MGSE1.NBT.2b b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.	• Expanded Notation • Add with Manipulatives: Add 10 and 6-10 • Flower Story Problems: Add 10 and 6-10 • Place Value: 10-19 song	• 1.NBT.2b.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 *Practice Pages* – Numbers 10-19 – More Numbers 10-19
MGSE1.NBT.2c c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to, one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).	• Expanded Notation • Story Problem Strategies: Expanded Notation, Place Value • Place Value • Place Value of 2-digit Numbers • Number Recognition and Sense	• 1.NBT.2c.pdf: The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). – Toss It
MGSE1.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 <.	• Greater Than, Less Than (2-digit Numbers) • You Be the Teacher: Greater Than, Less Than	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #4: USE PLACE VALUE UNDERSTANDING AND PROPERTIES OF OPERATIONS TO ADD AND SUBTRACT.		
MGSE1.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 ten (e.g., 24 + 9, 13 + 10, 27 + 40, using concrete models or drawings and strategies based on place value, properties of operations, and/or relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	• Addition • Add Tens • Kingdom of Counting • Doubles, Sums to 20 • Doubles Plus 1, Sums to 20 • Add with Manipulatives • Add Vertical Squares • Add with Beads • Flower Story Problems • Story Problem Strategies: Addition Strategy • Mental Math Games • Speed Games • Story Problem Strategies; with Regrouping, without Regrouping • You Be the Teacher	• 1.NBT.4.pdf: The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). – Drawing Tens – Beans, Beans, and More Beans – The Kingdome of Popsicle Stick-Filled Purses – Straws and Macaroni – Bean Addition *Practice Pages* – Newsletter – Adding Tens and Ones – Color Adds Up – Cookies and Milk! – Addition of Two-Digit Numbers – Addition and Subtraction of Large Numbers – 1 set of flashcards
MGSE1.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.	• Add 10 and 6-10 • Subtract 10 from 10-20 • Kingdom of Counting: Add 10 and 6-10; Subtract 10 from 10-20 • Flower Story Problems: Add 10 and 6-10; Subtract 10 from 10-20	• 1.NBT.5.pdf: Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. – Ten-O – Toss It – Make a Number *Practice Pages* – Subtract 10 – Flashcards – Bingo – Addition of Tens

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #4: USE PLACE VALUE UNDERSTANDING AND PROPERTIES OF OPERATIONS TO ADD AND SUBTRACT *continued*.		
MGSE1.NBT.6 Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range of 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. (e.g.,70 – 30, 30 – 10, 60 – 60)	• Subtraction • Subtraction Sentences • Subtract Tens • Subtraction Patterns • Subtract 10 from 10-20 • Kingdom of Counting: Subtraction Patterns • Use Manipulatives: Subtract 10 from 10-20 • Flower Story Problems: Subtraction Patterns; Subtract 10 from 10-20 • Story Problem Strategies: Subtract Ten • Problem Solving Strategies: Look for a Pattern • Mental Math Games • Story Problem Strategies: Subtract without Regrouping; Subtract with Regrouping • 2-digit Minus 1-digit Numbers with Regrouping • Subtract 2-digit Numbers with Regrouping • Subtract with Regrouping Concept • You Be the Teacher: Subtract with Regrouping	• 1.NBT.6.pdf: Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90. – Ten-O *Practice Pages* – Bingo – Subtract Multiples of 10
MGSE1.NBT.7 Identify dimes, and understand ten pennies can be thought of as a dime. (Use dimes as manipulatives in multiple mathematical contexts.)	• Money Introduction • Equivalent Sums of Money • Money song	
MEASUREMENT AND DATA (MD)		
CLUSTER #1: MEASURE LENGTHS INDIRECTLY AND BY ITERATING LENGTH UNITS.		
MGSE1.MD.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.	• Nonstandard Units • Story Problem Strategies: Nonstandard Units	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #1: MEASURE LENGTHS INDIRECTLY AND BY ITERATING LENGTH UNITS *continued*.		
MGSE1.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. (Iteration)	• Nonstandard Units of Length • Story Problem Strategies: Nonstandard Units of Length • Painting by Number • Problem Solving • Problem Solving Strategies: Make and Use a Picture	• 1.MD.2.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 *Practice Pages* – Measure Up! – Inches/Centimeters Rulers
CLUSTER #2: TELL AND WRITE TIME		
MGSE1.MD.3 Tell and write time in hours and half-hours using analog and digital clocks.	• Mr. Romano's Secret: A Time Story • How Long is a Minute? • Tell Time to the Hour • Tell Time to the Half-Hour • Compare Minutes to Hours • Story Problem Strategies: Time • Clock Hands	• 1.MD.3.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 *Practice Pages* – What Numbers are Missing? – What Time Is It? – Time of Day – Clock flashcards
CLUSTER #3: REPRESENT AND INTERPRET DATA.		
MGSE1.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.	• Venn Diagrams: The Birds, the Beasts, and the Bat • Tally Marks: One More Cat • Problem Solving Strategy: Make a Graph, Make a Table • Graphs • Make a Table • Story Problem Strategies: Graph	• 1.MD.4.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

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
GEOMETRY (G)		
CLUSTER #1: REASON WITH SHAPES AND THEIR ATTRIBUTES.		
MGSE1.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 to possess defining attributes.	• Corners and Sides song	
MGSE1.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.* This is important for the future development of spatial relations which later connects to developing understanding of area, volume, and fractions.	• Space Shapes • Story Problem Strategies: Space Shapes • Tangrams	
MGSE1.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. Understand for these examples that decomposing into more equal shares creates smaller shares.	• Halves and Fourths and Thirds • Equal-part Fractions • Label Parts of Fractions • Story Problem Strategies: Equal-part Fraction, Label Parts of Fractions	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
MATHEMATICS GRADE 2		
OPERATIONS AND ALGEBRAIC THINKING (OA)		
CLUSTER #1: REPRESENT AND SOLVE PROBLEMS INVOLVING ADDITION AND SUBTRACTION.		
MGSE2.OA.1 Use addition and subtraction within 100 to solve one and two step word problems by using drawings and equations with a symbol for the unknown number to represent the problem. Problems can include contexts that involve adding to, taking from, putting together/taking apart (part/part/whole) and comparing with unknowns in all positions.	• Painting by Number • Addition • Subtraction • Problem Solving Strategies: Act Out Addition; Act Out Subtraction • Story Problem Strategies: Perimeter; Make Change; Picture Graphs; Bar Graphs; Count Coins; Count Bills and Coins; Multiply Using Repeated Addition; Patterns of 2-digit Numbers; Patterns of 3-digit Numbers; Place Value of 2-digit Numbers; Place Value of 3-digit Numbers; Add with Regrouping; Subtract with Regrouping	• 2.OA.1.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 *Practice Pages* – Act it Out – Guess and Check
CLUSTER #2: ADD AND SUBTRACT WITHIN 20.		
MGSE2.OA.2 Fluently add and subtract within 20 using mental strategies. By the end of Grade 2, know from memory all sums of two one-digit numbers.	• Mental Math Games • Speed Games	• 2.OA.2.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. *Flashcards* – Addition—horizontal and vertical – Subtraction—horizontal and vertical
CLUSTER #3: WORK WITH EQUAL GROUPS OF OBJECTS TO GAIN FOUNDATIONS FOR MULTIPLICATION.		
MGSE2.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.	• Odd Todd and Even Steven song	• 2.OA.3.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?

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #3: WORK WITH EQUAL GROUPS OF OBJECTS TO GAIN FOUNDATIONS FOR MULTIPLICATION *continued*.		
MGSE2.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.	• Story Problem Strategies (Multiply Using Repeated Addition) (Multiply Using Arrays) Multiply Using Repeated Addition • Multiply Using Arrays	
NUMBER AND OPERATIONS IN BASE TEN (NBT)		
CLUSTER #1: UNDERSTAND PLACE VALUE.		
MGSE2.NBT.1a 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: a. 100 can be thought of as a bundle of ten tens—called a 'hundred'.	• Place Value of 3-digit Numbers • Place Value Song	• 2.NBT.1a.pdf: 100 can be thought of as a bundle of ten tens—called a "hundred." – The Kingdom of Popsicle Stick-Filled Purses
MGSE2.NBT.1b b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).	• Place Value of 3-digit Numbers • Place Value Song	• 2.NBT.1b.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). *Practice Pages* – My Three-Digit Numbers

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #1: UNDERSTAND PLACE VALUE *continued*.		
MGSE2.NBT.2 Count within 1000; skip-count by 5s, 10s, and 100s.	• Skip Count by 10 • Skip Count by 5 • Skip Counting • Story Problem Strategies: Skip Count • Number Sequences and Patterns Introduction	• 2.NBT.2.pdf: Count within 1,000; skip-count by 5s, 10s, and 100s. – Chart Patterns *Practice Pages* – My 199 Picture – My 200 Picture – My 299 Picture – My 300 Picture – My 399 Picture – My 400 Picture – My 499 Picture – My 500 Picture – My 599 Picture – My 600 Picture – My 699 Picture – My 700 Picture – 900 Chart
MGSE2.NBT.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	• Problem Solving Strategies (Make a List) • Story Problem Strategies: Sequences; Place Value • Sequences of 2-digit Numbers • Sequences of 3-digit Numbers • Place Value of 3-digit Numbers	
MGSE2.NBT.4 Compare two three-digit numbers based on meanings of hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.	• Story Problem Strategies: Greater Than, Less Than 3-digit • Greater Than, Less Than (3-digit Numbers) • Place Value of 3-digit Numbers	• 2.NBT.4.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 *Practice Pages* – Number Cards – <,>, = Cards – Greater Than, Less Than, Equal To

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #2: USE PLACE VALUE UNDERSTANDING AND PROPERTIES OF OPERATIONS TO ADD AND SUBTRACT.		
MGSE2.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.	• Mental Math Games • Story Problem Strategies: Add with Regrouping ; Subtract with Regrouping • Add with Regrouping • Speed Games • Add 3 Two-digit Numbers with Regrouping • 2-digit Minus 1-digit Numbers with Regrouping • Subtract with Regrouping • You Be the Teacher	• 2.NBT.5.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
MGSE2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.	• Add Two-digit Numbers with Regrouping	• 2.NBT.6.pdf: Add up to four two-digit numbers using strategies based on place value and properties of operations. – Add Four Two-Digit Numbers
MGSE2.NBT.7 Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method.	• Story Problem Strategies: Add 3 Two-digit with Regrouping; Add 3-digit with Regrouping; Subtract 2-digit with Regrouping; Subtract 3-digit with Regrouping • Subtract 2-digit Numbers with Regrouping • Subtract 3-digit Numbers with Regrouping • Subtract with Regrouping Concept • Add 3 Two-digit Numbers with Regrouping • Add 3-digit Numbers with Regrouping	• 2.NBT.7.pdf: Add and subtract within 1,000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds. – Choose and Add – Mix and Match Addition – Expanded Subtraction – Subtracting Repeats – 999 – Prediction *Practice Pages* – Up and Away – Regrouping Treasure Hunt – Play Ball – Squirrel Facts – Number Cards

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #2: USE PLACE VALUE UNDERSTANDING AND PROPERTIES OF OPERATIONS TO ADD AND SUBTRACT *continued*.		
MGSE2.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.	• Mental Math Games • Speed Games • Skip Count • Story Problem Strategies • Place Value • Number Line	• 2.NBT.8.pdf: Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900. – Spin and Solve (with spinner and numbers cards)
MGSE2.NBT.9 Explain why addition and subtraction strategies work, using place value and the properties of operations.	• Addition • Subtraction • Fact Families • Mental Math Games • Speed Games • Skip Count • Subtraction Patterns • Place Value • Number Line • You Be The Teacher	• 2.NBT.9.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 *Practice Pages* – Hundreds, Tens, Ones Chart – Numbers Cards
MEASUREMENT AND DATA (MD)		
CLUSTER #1: MEASURE AND LENGTHS IN STANDARD UNITS.		
MGSE2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	• Measurement Tools • Measuring Plants song • Standard Units of Length	• 2.MD.1.pdf: Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. – Ready, Set, Measure – Treasure Hunt *Practice Pages* – Centimeter ruler – Inch Ruler – Let's Measure in Centimeters! – Let's Measure in Inches!

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #1: MEASURE AND LENGTHS IN STANDARD UNITS *continued*.		
MGSE2.MD.2 Measure the length of an object twice, using length units of different measurements; describe how the two measurements relate to the size of the unit chosen. Understand the relative size of units in different systems of measurement. For example, an inch is longer than a centimeter. (Students are not expected to convert between systems of measurement.)	• Length • Standard Units of Length • Inch Ruler • Centimeter Ruler	• 2.MD.2.pdf: Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. – Ready, Set, Measure
MGSE2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.	• Length • Standard Units of Length • Inch Ruler • Centimeter Ruler	• 2.MD.3.pdf: Estimate lengths using units of inches, feet, centimeters, and meters. – Ready, Set, Measure – Treasure Hunt *Practice Pages* – Let's Measure in Centimeters! – Let's Measure in Inches! – Measuring Perimeter
MGSE2.MD.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.	• Length • Standard Units of Length • Inch Ruler • Centimeter Ruler	• 2.MD.4.pdf: Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. – Ready, Set, Measure – Treasure Hunt *Practice Pages* – Let's Measure in Centimeters! – Let's Measure in Inches!

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #2: RELATE ADDITION AND SUBTRACTION TO LENGTH.		
MGSE2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.	• Story Problem Strategies: Standard Units of Length • Book: Yangshi's Perimeter • Addition • Subtraction	
MGSE2.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.	• Number Line	
CLUSTER #3: WORK WITH TIME AND MONEY.		
MGSE2.MD.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	• 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 • You Be the Teacher	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
CLUSTER #3: WORK WITH TIME AND MONEY *continued*.		
MGSE2.MD.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.	• Money • Make Change • Count Coins • Count Bills and Coins • Story Problem Strategies: Make Change, Count Coins, Count Bills and Coins • You Be the Teacher: Make Change	• 2.MD.8.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 *Practice Pages* – Bills and Coins – Let's Count Coins – Money Addition – Change is Good! – Make 45¢
CLUSTER #4: REPRESENT AND INTERPRET DATA.		
MGSE2.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 making a line plot, where the horizontal scale is marked off in whole-number units.		• 2.MD.9.pdf: Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units. – Measuring Inches – Ready, Set, Measure – Practice Pages – Let's Measure in Centimeters! – Let's Measure in Inches!
MGSE2.MD.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.	• The Boonville Nine book • Graphing • Picture Graphs • Bar Graphs • Use Graphs and Tables • Story Problem Strategies: Picture Graphs, Bar Graphs	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
GEOMETRY (G)		
CLUSTER #1 REASON WITH SHAPES AND THEIR ATTRIBUTES.		
MGSE2.G.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	• Space Shapes • World Shapes • The Shape of Things book • Songs: Shapes, Shapes, Shapes; Corners and Sides; Kites • Story Problem Strategies: Space Shapes	
MGSE2.G.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	• Story Problem Strategies: Fractions of Regions, Fractions of Groups • You Be the Teacher: Fractions of Regions • Fractions	
MGSE2.G.3 Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.	• Fractions song • Books: The Fraction Twins; Halves, and Fourths and Thirds • Fractions • Halves and Fourths and Thirds • Label Parts of Fractions • Story Problem Strategies: Label Parts of Fractions • 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	
SCIENCE KINDERGARTEN		
EARTH AND SPACE SCIENCE		
SKE1 Obtain, evaluate, and communicate observations about time patterns (day to night and night to day) and objects (sun, moon, stars) in the day and night sky.	• Songs: Sun Blues, The Moon • Sun • Moon	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
EARTH AND SPACE SCIENCE *continued*		
SKE2 Obtain, evaluate, and communicate information to describe the physical attributes of earth materials (soil, rocks, water, and air).	• Songs: Water, I Am Part of All I See • Books: Mela's Water Pot, Up in the Air • Water Cycle • I Want to Be a Scientist Like George Washington Carver • I Want to Be a Scientist Like Wilbur and Orville Wright	
PHYSICAL SCIENCE		
SKP1 Obtain, evaluate, and communicate information to describe objects in terms of the materials they are made of and their physical attributes.	• Song: All Sorts of Laundry • Book: Buttons, Buttons • Materials • Sort • Match • Size • Big and Little	
SKP2 Obtain, evaluate, and communicate information to compare and describe different types of motion.	• Song: Push and Pull • Book: Mr. Mario's Neighborhood • Push and Pull	
LIFE SCIENCE		
SKL1 Obtain, evaluate, and communicate information about how organisms (alive and not alive) and nonliving objects are grouped.	• Song: Living and Nonliving • Living or Nonliving • Plant or Animal • Sort • Water • Sun	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
LIFE SCIENCE *continued*		
SKL2 Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms.	• Songs: Plant or Animal; Food From Plants; Vertebrates; Invertebrates; Guess What I Am; Fish; Birds; Plants Are Growing; Measuring Plants • Books: Creepy Crawlers; Follow the Apples! • Amphibians • Fish • Plant or Animal • Food From Plants • Mammals • Vertebrates • Invertebrates • Birds • Plants • I Want to Be a Scientist Like George Washington Carver • I Want to Be a Scientist Like Jane Goodall	
SCIENCE GRADE 1		
EARTH AND SPACE SCIENCE		
S1E1 Obtain, evaluate, and communicate weather data to identify weather patterns.	• Songs: Sun Blues; Precipitation; Matter • Books: Whatever the Weather; Pancakes Matter • Weather • Weather Tools • Weather Patterns • Weather Affects People and Animals • Graphs • Matter • Solid, Liquid, Gas	
PHYSICAL SCIENCE		
S1P1 Obtain, evaluate, and communicate weather information to investigate light and sound.	• Song: Sound • Book: What Sounds Say • Sound • Sound Waves • Light • Sources of Light	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
PHYSICAL SCIENCE *continued*		
S1P2 Obtain, evaluate, and communicate information to demonstrate the effects of magnets on other magnets and other objects.	• Magnets	
LIFE SCIENCE		
S1L1 Obtain, evaluate, and communicate information about the basic needs of plants and animals.	• Songs: Conservation; Food From Plants; Plants Are Growing • Books: A Seed Grows; I Want to Be a Scientist Like Carl Linnaeus • Animals • Plants and Animals • Plants Need Water • Healthy Plants' Needs • Plants and Animals Need Air • Care of Earth • Food Chains	
SCIENCE GRADE 2		
EARTH AND SPACE SCIENCE		
S2E1 Obtain, evaluate, and communicate information about stars having different sizes and brightness.	• Song: Sun Blues • Book: I Want to Be a Scientist Like Stephen Hawking • Sun, Moon, and Earth • Astronomy	
S2E2 Obtain, evaluate, and communicate information to develop an understanding of the patterns of the sun and the moon and the sun's effect on Earth.	• Song: Sun Blues; Graphing • Books: My Family Campout; I Want to Be a Scientist Like Stephen Hawking • Sun, Moon, and Earth • Moon Patterns • Graphs and Tables • Bar Graphs • Picture Graphs	

GEORGIA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD PRINT RESOURCES
EARTH AND SPACE SCIENCE *continued*		
S2E3 Obtain, evaluate, and communicate information about how weather, plants, animals, and humans cause changes to the environment.	• Song: Pollution Rap; Conservation; I Am Part of All I See • Natural Resources • Earth Science • Pollution and Recycling	
PHYSICAL SCIENCE		
S2P1 Obtain, evaluate and communicate information about the properties of matter and changes that occur in objects.	• Songs: Matter; Solid or Liquid • Changes in Matter • Water Cycle • Measurement Tools • Length	
S2P2 Obtain, evaluate, and communicate information to explain the effect of a force (a push or a pull) in the movement of an object (changes in speed and direction).	• Song: Push and Pull • Measurement Tools	
LIFE SCIENCE		
S2L1 Obtain, evaluate, and communicate information about the life cycle of different living organisms.	• Songs: Plant or Animal; Food From Plants; What Animals Eat; Conservation; Traits; Plants Are Growing; Birds; Vertebrates; Invertebrates • Book: The Old Maple Tree; George and Jack • Life Science • Natural Resources • Animal Life Cycle and Growth • Plant Life Cycle and Growth • Traits of Living Things • Team Science • Social Insects	

MATH & SCIENCE LEVEL ONE

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

MATH & SCIENCE LEVEL TWO

Math & Science Books

One More Cat; Can You Guess? A Story for Two Voices; I Want to Be a Scientist Like Carl Linnaeus; I 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

MATH & SCIENCE LEVEL THREE

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; Tyrannosauraus 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