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Correlation Criteria: NORTH DAKOTA MATHEMATICS
CONTENT STANDARDS 2017
for KINDERGARTEN, 1ST, AND 2ND GRADES

SEPTEMBER 2018

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Correlation

Waterford Reading Academy:

Math

100%

North Dakota Mathematics Content Standards 2017

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

TABLE OF CONTENTS

NORTH DAKOTA MATHEMATICS CONTENT STANDARDS 2017

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
KINDERGARTEN		
COUNTING AND CARDINALITY		
Know number names and the count sequence.		
Count to 100 by ones and tens. Count backward from 20 by ones.	• Number Songs • Counting Songs • Math Books (See titles at end of document.) • Songs: Skip Counting; Hotel 100; Counting Backward • Number Instruction • Number Counting • Order Numbers • Skip Count by 10 • Dot to Dot • Counting Puzzle • Count Down	

K.CC.2 Count forward beginning from a given number within 100. Count backward from a given number within 10.	• Number Songs
	• Counting Songs
	• Math Books
	  (See titles at end of document.)
	• Songs: Skip Counting; Hotel 100; Counting Backward
	• Number Instruction
	• Number Counting
	• Order Numbers
	• Skip Count by 10
	• Dot to Dot
	• Counting Puzzle
	• Count Down
		• Counting Forward.pdf: Count forward beginning from a given number within a known sequence.
		  – Let's Count On
		  – Toss and Count
		  – Count on by 1
		  – Math Newsletter: Count On & Number Cards

K.CC.3 Write numbers sequentially from 0 to 20. Write a given number from 0 to 20.	• Number Instruction
	• Number Recognition and Sense
	• Number Counting
		• 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
		  – Numbers 1–5
		  – Add groups
		  – Count on by 1
		  – Number Writing Practice: 0–20

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Count to tell the number of objects.		
K.CC.4 Understand the relationsip between numbers and quantities up to 20; connect counting to cardinality. a. Use one to one correspondence when counting objects. b. Understand that the last number name said tells the number of objects counted, regardless of their arrangement or order in which they were counted. c. Understand that each successive number name refers to a quantity that is one more.	• Math Books • Number Songs • Counting Songs (See titles at end of document.) • Number Counting • Number Instruction • Number Recognition and Sense • One-to-one Correspondence • Make and Count Groups • Bug Fun • Match Numbers • Number Review	

K.CC.5 Count to answer "how many?" questions.
a. Tell how many objects up to 20 are in an arranged pattern (e.g., a line or array) or up to 10 objects in a scattered configuration.
b. Represent a number of objects up to 20 with a written numeral.
c. Given a number from 1-20, count out that many objects.
	• Counting Songs
	• Number Songs
	• Math Books
	  (See titles at end of document.)
	• Make and Count Groups
	• Number Counting
	• Order Numbers
	• Number Instruction
	• Number Recognition and Sense
	• Numbers Review
	• Match Numbers
	• Bug Fun
	• One-to-one Correspondence
		• How Many?.pdf: Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.
		  – Hoop Addition

Compare numbers.		
K.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, using groups of up to 10 objects	• Book: For the Birds • Make and Count Groups • Greater Than, Less Than • More Than, Fewer Than • More Than • Fewer Than • Make a Math Story: More Than, Fewer Than • Number Recognition and Sense	

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Compare numbers *continued*.		
K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.	• Greater Than, Less Than • More Than, Fewer Than • More Than • Fewer Than • Make a Math Story: More Than, Fewer Than • Number Recognition and Sense	• Comparing Numbers.pdf: Compare two numbers between 1 and 10 presented as written numerals. – More or Less Spinner – Catch Me If You Can! – Greater or Less – Less or Greater
OPERATIONS AND ALGEBRAIC THINKING		
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.		
K.OA.1 Represent addition and subtraction in a variety of ways	• Songs: Addition; Pirates Can Add; On the Bayou; Bakery Subtraction; Circus Subtraction; Subtract Those Cars • Book: Five Delicious Muffins • Add Groups • Subtract Groups • Dominoes • Add With Manipulatives • Add With Beads • Minuends • Act Out Addition • Act Out Subtraction • Mental Math Games	
K.OA.2 Use an appropriate strategy to solve word problems that involve adding and subtracting within 10.	• Songs: Addition; Pirates Can Add; On the Bayou; Bakery Subtraction; Circus Subtraction; Subtract Those Cars • Book: Five Delicious Muffins • Story Problem Strategies • Add Groups • Subtract Groups • Dominoes • Add With Manipulatives • Add With Beads • Minuends • Act Out Addition • Act Out Subtraction • Mental Math Games	• 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. – Stories: Addition; Act It Out; Edible; Manipulative – One, Two, Three, Show – Circus Subtraction and Partner Subtraction – Farmer's Market – Green and Speckled Frogs – Cars and Trucks and Yummy Subtraction – Act Out Addition/Act Out Subtraction – Addition & Subtraction Newsletters – Subtraction Flashcards

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NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from *continued*.		
K.OA.3 Decompose numbers less than or equal to 10 into multiple combinations of two parts. Record each decomposition with a drawing or equation.	• Make and Count Groups • Subtract Groups • Act Out Subtraction	
K.OA.4 Find the number that makes 10 when added to a given number from 1 to 9. Record with a drawing or equation.	• Make and Count Groups • Add Groups • Sums • Act Out Addition	
K.OA.5 Fluently add and subtract within 5.	• Make and Count Groups • Add Groups • Subtract Groups • Sums • Act Out Addition • Act Out Subtraction • Mental Math Games	
NUMBER AND OPERATIONS IN BASE TEN		
Work with numbers 11-19 to gain foundations for place value.		
K.NBT.1 Compose and decompose numbers from 11 to 19 using a group of ten ones and additional ones. Record each composition or decomposition with a drawing or equation.	• Place Value (10-19)	• Tens and ones.pdf: Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation; understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. – Place Value 11-19 (1 & 2)

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
MEASUREMENT AND DATA		
Describe and compare measurable attributes.		
K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	• Song: Measuring Plants • Length	• Measurable attributes.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 – Measurable Attributes
K.MD.2 Compare two objects with a common measurable attribute and describe the difference.	• Song: Measuring Plants; Savanna Size; Large, Larger, Largest • Length • Capacity • Big and Little • Tall and Short • Heavy and Light • Size	• Measurable Attributes.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 – Measurable Attributes
Classify objects and count the number of objects in each category.		
K.MD.3 Classify objects into given categories limiting the number in each category to 10 or less. Count the numbers of objects in each category and sort the categories by count.	• Songs: Same and Different; All Sorts of Laundry • Book: Buttons, Buttons • Match • Matching • Sort • Logic Game	

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
GEOMETRY		
Identify and describe shapes and solids (squares, circles, triangles, rectangles, cubes, and spheres).		
K.G.1 Describe objects in the environment using names of shapes and solids (squares, circles, triangles, rectangles, cubes, and spheres).	• Song: Shapes, Shapes, Shapes; Kites • Books: The Shape of Things; Imagination Shapes • Simple Shapes • World Shapes • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Diamond	

K.G.2 Correctly name shapes and solids (squares, circles, triangles, rectangles, cubes, and spheres) regardless of their orientations or overall size.	• Songs: Shapes, Shapes, Shapes; Corners and Sides; Congruent Parts; Kites
	• Books: The Shape of Things; Imagination Shapes
	• Simple Shapes
	• Solid Shapes
	• Circle, Square, Triangle, Rectangle
	• Star, Semicircle, Octagon, Oval, Diamond
	• Congruence
	• World Shapes
		• Shape Recognition.pdf: Correctly name shapes regardless of their orientations or overall size.
		  – Shapes Scavenger Hunt
		  – Shapes and Positioning
		  – Shapes Flashcard

K.G.3 Identify shapes and solids (squares, circles, triangles, rectangles, cubes, and spheres) as two-dimensional or three-dimensional.	• Songs: Shapes, Shapes, Shapes; Corners and Sides; Congruent Parts; Kites • Books: The Shape of Things; Imagination Shapes • Simple Shapes • Solid Shapes • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Diamond • Congruence • World Shapes	
Compare, classify, and compose shapes.		
K.G.4 Compare and classify two-dimensional shapes (squares, circles, triangles, rectangles) of different sizes and orientations, using informal language to describe their similarities, differences, and attributes.	• Songs: Shapes, Shapes, Shapes; Corners and Sides; Congruent Parts; Kites • Books: The Shape of Things; Imagination Shapes • Simple Shapes • Solid Shapes • Circle, Square, Triangle, Rectangle • Star, Semicircle, Octagon, Oval, Diamond • Congruence • World Shapes	

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Compare, classify, and compose shapes *continued*.		
K.G.5 No content for this standard code.		
K.G.6 Compose a new shape by combining two or more simple shapes.	• Geoboard • Tangrams	
GRADE 1		
OPERATIONS AND ALGEBRAIC THINKING		
Represent and solve problems involving addition and subtraction.		

1.OA.1 Use strategies to add and subtract within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.	• Book: Painting by Number
	• Story Problem Strategies
	• Missing Addends
	• Missing Minuends and Subtrahends
	• Mental Math Games
	• Addition and Subtraction Relationship
	• Commutative Property of Addition
		• Word Problems Using Addition and Subtraction within 20.pdf: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.
		  – Guess and Check
		  – Model the Story

1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20.	• Story Problem Strategies: Add 3 One-digit Numbers	• Word problems adding 3 numbers.pdf: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20. – Draw a Picture
Understand and apply properties of operations and the relationship between addition and subtraction.		
1.OA.3 Apply properties of operations as strategies to add and subtract.	• Book: Painting by Number • Subtraction Patterns • Commutative Property of Addition • Kingdom of Counting • Mental Math Games	
1.OA.4 Demonstrate understanding of subtraction as an unknown-addend problem.	• Missing Addends • Subtraction Patterns • Kingdom of Counting • Mental Math Games	• Understand subtraction as an unknown addend problem.pdf: Understand subtraction as an unknown-addend problem. Add and subtract within 20. Write each subtraction problem as an addition problem and solve it.

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Add and subtract within 20.		

1.OA.5 Relate counting to addition and subtraction.	• Songs: Counting On; Fact Families
	• Books: Circus 20; Facts About Families; Painting by Number
	• Addition and Subtraction Fact Families
	• Jump Rope Rhymes
	• Count Down
	• Count On
		• Relate counting to addition and subtraction.pdf: Relate counting to addition and subtraction.
		  – Skip Counting Chant
		  – Jump Rope Counting
		  – Related Facts
		  – Count by 10s
		  – Count by 5s
		  – Count by 2s

1.OA.6 Use strategies to add and subtract within 20.
Fluently add and subtract within 10.
	• Song: Fact Families
	• Books: Facts about Families; Painting by Number
	• Addition and Subtraction Fact Families
	• Addition Sentences
	• Subtraction Sentences
	• Commutative Property of Addition
	• Addition and Subtraction Relationship
	• Missing Addends
	• Missing Minuends and Subtrahends
	• Subtraction Patterns
	• Missing Addends, Sums to 10
	• Mental Math Games
	• Speed Games
		• 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
		  – 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

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Add and subtract within 20 *continued*.		
1.OA.6 Use strategies to add and subtract within 20. Fluently add and subtract within 10 *continued*.		*Sets of flashcards:* – Addition—horizontal – Subtraction—horizontal – Addition—vertical – Subtraction—horizontal
Work with addition and subtraction equations.		
1.OA.7 Demonstrate understanding of the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.	• Song: Finding the Difference • Book: Circus 20 • Addition Sentences • Subtraction Sentences	
1.OA.8 Determine the unknown whole number in an addition or subtraction equation that uses three whole numbers.	• Missing Addends • Missing Minuends and Subtrahends • Mental Math Games	
NUMBER AND OPERATIONS IN BASE TEN		
Extend the counting sequence.		
1.NBT.1 Count forward and backward within 120, starting at any given number. Read and write numerals within 120. Represent a number of objects up to 120 with a written numeral.	• Song: Counting On • Book: Hooray, Hooray for the One Hundredth Day! • Count On • Number Recognition and Sense • Number Chart	• 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 – I Can Count to 50 – I Can Count to 100 – I Can Count to 99 – I Can Count to 120

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Understand place value.		
1.NBT.2 Demonstrate understanding that the two digits of a two-digit number represent amounts of tens and ones, including: a. 10 can be thought of as a bundle of ten ones—called a "ten." b. The numbers from 11 to 19 are composed of a ten and additional ones. c. Multiples of 10 up to 90 represent a number of tens and 0 ones.	• Song: Place Value • Place Value of 2-digit Numbers • Expanded Notation • Add with Manipulatives • Flower Story Problems • Number Recognition and Sense	• Tens as a bundle of ten ones.pdf: 10 can be thought of as a bundle of ten ones—called a "ten." – Popsicles to Ten
1.NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.	• Greater Than, Less Than (2-digit Numbers) • You Be the Teacher: Greater Than, Less Than	
Use place value understanding and properties of operations to add and subtract.		

1.NBT.4 Demonstrate understanding of place value when adding two-digit numbers within 100.
a. Add a two-digit number and a one-digit number.
b. Add a two-digit number and a multiple of 10.
Use concrete models or drawing strategies based on place value, properties of operations, and/or the relationship between addition and subtraction to add and subtract within 100. Relate the strategy to a written method and explain the reasoning used.
	• Addition
	• Add Tens
	• Kingdom of Counting
	• Doubles
	• Doubles Plus 1
	• Add with Manipulatives
	• Add Vertical Squares
	• Add with Beads
	• Flower Story Problems
	• Story Problem Strategies
	• Mental Math Games
	• Speed Games
	• Add 2-digit and 1-digit Numbers with Regrouping
	• Add 2-digit Numbers without Regrouping
	• Add 3-digit Numbers without Regrouping
	• Add 2-digit and 1-digit Numbers with Regrouping
	• Add 3 Two-digit Numbers with Regrouping
	• Add 2-digit Numbers with Regrouping
	• Add with Regrouping Concept
	• You Be the Teacher: Add 2-digit Numbers without
	• Regrouping, Add 2-digit Numbers with Regrouping
		• Adding within 100.pdf: The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
		  – Drawing Tens
		  – Beans, Beans, and More Beans
		  – The Kingdome of Popsicle Stick-Filled Purses
		  – Straws and Macaroni
		  – Bean Addition
		  – Newsletter
		  – Adding Tens and Ones
		  – Color Adds Up
		  – Cookies and Milk!
		  – Addition of Two-Digit Numbers
		  – Addition and Subtraction of Large Numbers
		  – 1 set of flashcards

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Use place value understanding and properties of operations to add and subtract *continued*.		

1.NBT.5 Mentally add or subtract 10 to or from a given two-digit number. Explain the reasoning used.	• Add 10 and 6-10
	• Subtract 10 from 10-20
	• Skip Counting
	• Kingdom of Counting
	• Flower Story Problems
		• Ten more or less.pdf: Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
		  – Ten-O
		  – Toss It
		  – Make a Number
		  – Subtract 10
		  – Flashcards
		  – Bingo
		  – Addition of Tens

1.NBT.6 Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction to subtract multiples of 10 in the range of 10-90 from multiples of 10 in the same range resulting in a positive or zero difference. Use a written method to explain the strategy.	• Subtraction
	• Subtraction Sentences
	• Subtract Tens
	• Subtraction Patterns
	• Subtract 10 from 10–20
	• Use Manipulatives
	• Flower Story Problems: Subtraction Patterns
	• Story Problem Strategies: Subtract Ten
	• Problem Solving Strategies: Look for a Pattern
	• Mental Math Games
	• Story Problem Strategies
	• You Be the Teacher
		• Subtracting in 10s.pdf: Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90.
		  – Ten-O
		  – Bingo
		  – Subtract Multiples of 10

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
MEASUREMENT AND DATA		
Measure lengths indirectly and by iterating length units.		
1.MD.1 Order three objects by length. Compare the lengths of two objects indirectly by using a third object.	• Nonstandard Units of Length • Story Problem Strategies: Nonstandard Units of Length	

1.MD.2 Demonstrate understanding that the length measurement of an object is the number of same-size length units that span the object with no gaps or overlaps. Measure and express the length of an object using whole non-standards units.	• Nonstandard Units of Length
	• Story Problem Strategies: Nonstandard Units of Length
	• Problem Solving
	• Problem Solving Strategies: Make and Use a Picture
		• Length Measurment.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

Work with time.		

1.MD.3 Tell and write time to the hour and half-hour (including o'clock and half past) using analog and digital clocks.	• Books: 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
		• 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

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Represent and interpret data.		

1.MD.4 Organize, represent, and interpret data with up to three categories.
Ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
	• Song: Tallying
	• Book: One More Cat
	• Tally Marks
	• Problem Solving Strategy: Make a Graph, Make a Table
	• Graphs
	• Make a Table
	• Story Problem Strategies: 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
		  – Weather Flashcards
		  – Our Favorite Foods
		  – Make a Graph
		  – Make a table
		  – How Many?
		  – Bugs!
		  – Use Graphs and Tables
		  – How Big is Your Family?

Identify and count money.		
1.MD.5 Identify and tell the value of a dollar bill, quarter, dime, nickel, and penny.	• Song: Money • Book: Bugs For Sale • Count Dimes, Nickels, and Pennies • Count Quarters, Dimes, Nickels, and Pennies • Count Nickels and Pennies or Dimes and Pennies • Equivalent Sums of Money • Quarters	
1.MD.6 Count and tell the value of combinations of dimes and pennies up to one dollar.	• Song: Money • Book: Bugs For Sale • Count Dimes, Nickels, and Pennies • Count Quarters, Dimes, Nickels, and Pennies • Count Nickels and Pennies or Dimes and Pennies • Equivalent Sums of Money • Quarters	

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
GEOMETRY		
Reason with shapes and solids and their attributes (squares, circles, triangles, rectangles, trapezoids, rhombuses, pentagons, hexagons, octagons, cubes, spheres, cylinders, cones, triangular prisms, and rectangular prisms).		
1.G.1 Distinguish between defining attributes versus non-defining attributes. Use defining attributes to build and draw two-dimensional shapes (squares, circles, triangles, rectangles, trapezoids, rhombuses, pentagons, hexagons, octagons).	• Song: Corners and Sides • Geoboard	
1.G.2 Compose a new shape or solid from two-dimensional shapes and/or three-dimensional solids (squares, circles, triangles, rectangles, trapezoids, rhombuses, pentagons, hexagons, octagons, cubes, spheres, cylinders, cones, triangular prisms, and rectangular prisms).	• Space Shapes • Geoboard • Tangrams	
1.G.3 Partition circles and rectangles into two equal shares. Describe the shares using the word halves, and use the phrase half of. Describe the whole as two of the shares.	• Book: Halves and Fourths and Thirds • Equal-part Fractions • Label Parts of Fractions	

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
GRADE 2		
OPERATIONS AND ALGEBRAIC THINKING		
Represent and solve problems involving addition and subtraction.		

2.OA.1 Use strategies to add and subtract 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.	• Book: Painting by Number
	• Addition
	• Subtraction
	• Problem Solving Strategies: Act Out Addition; Act Out Subtraction
	• Story Problem Strategies
		• 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

Add and subtract within 20.		

2.OA.2 Use mental strategies to fluently add and subtract within 20.	• Mental Math Games
	• Speed Games
	• Subtraction Patterns
	• Addition Facts to 20
		• Adding and subtracting within 20.pdf: Fluently add and subtract within 20 using mental strategies. By end of grade 2, know from memory all sums of two one-digit numbers.
		Sets of flashcards:
		   – Addition—horizontal
		   – Subtraction—horizontal
		   – Addition—vertical
		   – Subtraction—vertical
		   – Addition and subtraction—horizontal and vertical

Work with equal groups of objects to gain foundations for multiplication.		

2.OA.3 Determine whether a given number of objects up to 20 is odd or even.
Write an equation to represent an even number using two equal addends or groups of 2.
	• Song: Odd Todd and Even Steven
	• Skip Count by 2
		• 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?

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Work with equal groups of objects to gain foundations for multiplication *continued*.		
2.OA.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns. Write an equation to express the total as a sum of equal addends.	• Addition • Multiply Using Repeated Addition • Multiply Using Arrays	
NUMBER AND OPERATIONS IN BASE TEN		
Understand place value.		

2.NBT.1 Demonstrate understanding that the three digits of a three-digit number represent amounts of hundreds, tens, and ones, including:
   a. 100 can be thought of as a bundle of ten tens called a "hundred".
   b. Multiples of 100 represent a number of hundreds, 0 tens, and 0 ones.
	• Song: Place Value
	• Place Value of 3-digit Numbers
		• Thinking of 100 as a bundle of ten 10s.pdf: 100 can be thought of as a bundle of ten tens—called a "hundred."
		  – The Kingdom of Popsicle Stick-Filled Purses
		• Grouping hundreds.pdf: The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six , seven, eight, or nine hundreds (and 0 tens and 0 ones).
		  – My Three-Digit Numbers

2.NBT.2 Count forward and backward from any given number within 1000. Skip-count by 5s, 10s, and 100s.	• Songs: Skip Counting; Counting Backward
	• Skip Count
	• Skip Count by 10
	• Skip Count by 5
	• Story Problem Strategies: Skip Count
	• Number Sequences and Patterns
		• Counting within 1000.pdf: Count within 1,000; skip-count by 5s, 10s, and 100s.
		  – Chart Patterns
		  – 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

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Understand place value *continued*.		
2.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	
2.NBT.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, recording the results of comparisons with the symbols >, =, and <.	• Story Problem Strategies: Greater Than, Less Than 3-digit • Greater Than, Less Than (3-digit Numbers) • Place Value of 3-digit Numbers	• Less than, equal to, or greater than.pdf: Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons. – More or Less – The Hands Have It! – Larger or Smaller? – Comparing Number Cards – Number Cards – <,>, = Cards – Greater Than, Less Than, Equal To
Use place value understanding and properties of operations to add and subtract.		
2.NBT.5 Use strategies based on place value, properties of operations, and/ or the relationship between addition and subtraction to fluently add and subtract within 100.	• Mental Math Games • Story Problem Strategies: Add with Regrouping; Subtract with Regrouping • Add without Regrouping • Add with Regrouping • Subtract without regrouping • Subtract with Regrouping • Speed Games	• 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
2.NBT.6 Use strategies based on place value and properties of operations to add up to four two-digit numbers.	• Add Two-digit Numbers	• Adding four 2-digit numbers.pdf: Add up to four two-digit numbers using strategies based on place value and properties of operations. – Add Four Two-Digit Numbers

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Use place value understanding and properties of operations to add and subtract *continued*.		

2.NBT.7 Demonstrate understanding of place value within 1000 when adding and subtracting three-digit numbers. Use concrete models or drawings and strategies based on place value, properties of operation, and/or the relationship between addition and subtraction to add and subtract within 1000. Use a written method to explain the strategy.	• 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
	• Place Value
		• Add and subtract within 1000.pdf: Add and subtract within 1,000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
		  – Choose and Add
		  – Mix and Match Addition
		  – Expanded Subtraction
		  – Subtracting Repeats
		  – 999
		  – Prediction
		  – Up and Away
		  – Regrouping Treasure Hunt
		  – Play Ball
		  – Squirrel Facts
		  – Number Cards

2.NBT.8 Mentally add or subtract 10 or 100 to or from a given number between 100 and 900.	• Mental Math Games • Speed Games • Skip Count • Place Value • Number Chart • Number Patterns	• Mentally adding or subtracting 10 or 100.pdf: Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900. – Spin and Solve (with spinner and numbers cards)
2.NBT.9 No content for this standard code.		

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
MEASUREMENT AND DATA		
Measure and estimate lengths in standard units.		

2.MD.1 Select and use appropriate tools to measure the length of an object.	• Song: Measuring Plants
	• Measurement Tools
	• Length
		• Measurement tools.pdf: Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
		  – Ready, Set, Measure
		  – Treasure Hunt
		  – Centimeter ruler
		  – Inch Ruler
		  – Let's Measure in Centimeters!
		  – Let's Measure in Inches!

2.MD.2 Measure the length of an object using two different standard units of measurement. Describe how the two measurements relate to the size of the units chosen.	• Songs: Measuring Plants • Measurement Tools • Standard Units of Length	• Measuring the same object two ways.pdf: Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. – Ready, Set, Measure

2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.	• Song: Measuring Plants
	• Standard 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

2.MD.4 Measure to determine how much longer one object is than another, expressing the difference with a standard unit of measurement.	• Book: Birds at My House • Standard Units of Length • Measurement Tools	

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Relate addition and subtraction to equal intervals on a number line.		
2.MD.5 No content for this standard code.		
2.MD.6 Represent whole numbers on a number line diagram with equally spaced points. Represent whole-number sums and differences within 100 on a number line diagram.	• Number Line	
Work with time and money.		
2.MD.7 Tell and write time to the nearest five minutes (including quarter after and quarter to) with a.m. and p.m. using analog and digital clocks.	• Songs: Telling Time; Clock Hands • Tell Time • 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: Tell Time	

2.MD.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.	• Songs: Money; Save Your Pennies
	• Coin Identification
	• Coin Value
	• Quarters
	• Count Dimes, Nickels, and Pennies
	• Count Quarters, Dimes, Nickels, 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¢

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Represent and interpret data.		
2.MD.9 Generate data by measuring lengths of objects to the nearest whole standard unit. Show the measurements by making a line plot, using a horizontal scale marked off in whole-number units.		• Generating measurement data.pdf: Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units. – Measuring Inches – Ready, Set, Measure – Let's Measure in Centimeters! – Let's Measure in Inches!
2.MD.10 Draw picture graphs and bar graphs with single-unit scales to represent data sets with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.	• Song: Graphing • Book: The Boonville Nine • Graphing • Picture Graphs • Use Graphs and Tables • Story Problem Strategies: Picture Graphs, Bar Graphs	
GEOMETRY		
Reason with shapes and their attributes (squares, circles, triangles, rectangles, trapezoids, rhombuses, pentagons, hexagons, octagons, parallelograms, quadrilaterals, cubes, spheres, cylinders, cones, triangular prisms, and rectangular prisms).		
2.G.1 Identify trapezoids, rhombuses, pentagons, hexagons, octagons, parallelograms, quadrilaterals, cubes, spheres, cylinders, cones, triangular prisms, rectangular prisms. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.	• Songs: Shapes, Shapes, Shapes; Corners and Sides; Kites • Book: The Shape of Things • Space Shapes • World Shapes • Story Problem Strategies: Space Shapes • Geoboard	
2.G.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number.	• Song: Fractions • Story Problem Strategies: Fractions of Regions, Fractions of Groups • You Be the Teacher: Fractions of Regions	

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CURRICULUM

NORTH DAKOTA STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
Reason with shapes and their attributes (squares, circles, triangles, rectangles, trapezoids, rhombuses, pentagons, hexagons, octagons, parallelograms, quadrilaterals, cubes, spheres, cylinders, cones, triangular prisms, and rectangular prisms) *continued*.		
2.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 identical wholes can be equally divided in different ways. Demonstrate understanding that partitioning shapes into more equal shares creates smaller shares.	• Song: Fractions • Books: Halves and Fourths and Thirds; The Fraction Twins • Label Parts of Fractions • Geoboard • Fractions of Regions • Fractions of Group • Story Problem Strategies: Fractions of Regions, Fractions of Groups • You Be the Teacher: Fractions of Regions, Fractions of Groups • Fractions Introduction	

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

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

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

SPANISH FAMILY ENGAGEMENT RESOURCES

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

SONGS

Beginning Math Songs

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

Nursery Songs and Rhymes

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

Beginning Reading Songs

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

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

WEEKLY HOMELINK NEWSLETTERS

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

MATH HOMELINK NEWSLETTERS

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

SCIENCE HOMELINK NEWSLETTERS

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

READING HOMELINK NEWSLETTERS

Alphabet Knowledge

Comprehension and Vocabulary

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

Readiness Skills Letters

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

Phonological Awareness Letters

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

WATERFORD MENTOR

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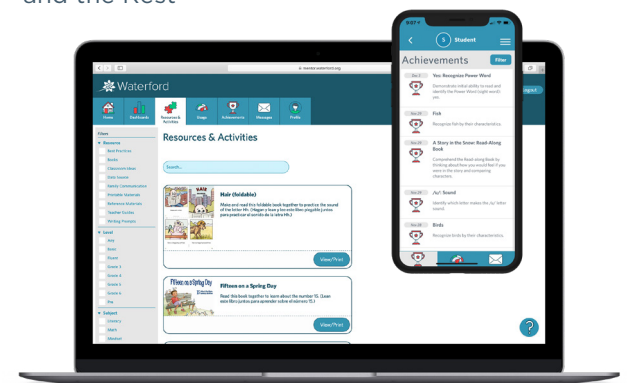
Waterford Mentor is available online and in the Mentor app (for iOS and Android).