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2nd Grade Math Course of Study

UNIT 1: Place Value
Essential Questions: How can we use and represent information to solve problems?
Big Idea: Place value
Big Idea: Graphing
Vocabulary: bar graph, benchmark, benchmark number, category, data, difference, estimate, key, meter, number line, scale, table, tick mark

Connection to **Social Emotional Standards** and/or **Social Justice Standards**

Lesson with SEAD Theme
-Explore opportunities to develop skills and talents
-Seek help when faced with challenges or when frustrated with a task, skill or situation
-Demonstrate confidence in the ability to complete simple tasks and challenges independently, while expressing positive attitudes towards self
-Identify personal behaviors or reactions when experiencing basic emotions
-Identify and begin to use strategies to regulate emotions and manage behaviors
-Identify goals for classroom behavior and academic success
-Identify how adults and peers can help with a goal
-Describe what action steps can be taken to reach a short-term goal
-Discuss obstacles that can get in the way of reaching a goal and ideas for handling those obstacles
-Describe a time when you kept trying in a challenging situation
-Explain how practice improves performance of a skill and can help in overcoming a challenge or setback

Connection to Vision of a Lakewood Ranger

-Critical & creative thinking
-Communication
-Collaboration
-Growth mindset

Assessment of Learning Options How will we know if they learned this skill?	Representing and Solving Addition and Subtraction Problems Mini-Assessment Module 1 Pre-assessment Module 1 Mid-unit assessment Module 1 End of Unit Assessment

Content Standards	**Learning and Performance Expectations** What must students know and be able to do?	**Resources Options**
2.OA.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	In Grade 1, students developed the understanding of equality and solved one-step word problems within 20. In Grade 2, students solve one- and two-step addition and subtraction word problems within 100 with unknowns in all positions. In future learning, students will solve two-step word problems using the four operations with whole numbers. ESSENTIAL UNDERSTANDINGS • Real-world and mathematical situations can be represented	Math Milestones Student Handouts Computation Strategies Learn Zillion Understand a Word Problem Video Learn Zillion 2-step Word Problem Video

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	using drawings	Learn Zillion What Can You Do To Make a Word Problem Easier Math Project (p.10) Math Project (p. 12) One Grain of Rice Read Aloud Brainpop Jr. (Solving a Word Problem) and (Choosing an Operation) -iReady -Zearn -Prodigy
2.NBT.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: a. 100 can be thought of as a bundle of ten tens - called a "hundred." 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).	In Grade 1, the foundation was developed for place value of tens and ones, and students read and write numerals to 120. This cluster is extending students' understanding of the base-ten system to include hundreds. In Grade 2, students develop the conceptual understanding of a group of ten tens as one "hundred". Students compare two three-digit numbers using symbols. Students count forward and backward within 1,000 starting at any number. They skip count by tens and hundreds starting at any number and skip count by fives starting at any multiple of five. Skip Counting builds the essential foundation for repeated addition, leading to multiplication in Grade 3. Students read and write numbers to 1,000 using base-ten numerals, number names, expanded form, and equivalent representations. In Grade 3, students will use their understanding of the base-ten system to round to the nearest 10 or 100.	Math Milestone Student Handouts Curious Subtraction Task 3 Composing/Decomposing Problems Learn Zillion Video Collection for Standard Brainpop Jr. (Place Value) and (Comparing Numbers) -iReady -Zearn -Prodigy
2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	In grade 1, students extend their understanding of tens and ones to addition and subtraction within 100. Students count numbers to 120 on the number path and write numbers in different forms, paying special attention to repeating place value patterns in the numerals. They add pairs of two-digit numbers in which the ones digits sometimes have a sum greater than 10. Students record their work with drawings and methods based on place value.	Writing 2-Digit Numbers in Expanded Form | Elem… Expanded Form Video - 1st and 2nd Grade Math Write numbers in expanded form (Learn Zillion)
2.NBT.A.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.	In grade 1, students extend their understanding of tens and ones to addition and subtraction within 100. Students count numbers to 120 on the number path and write numbers in different forms, paying special attention to repeating place value patterns in the numerals. They add pairs of two-digit numbers in which the ones digits sometimes have a sum greater than 10. Students record their work with drawings and methods based on place value.	Brainpop Jr. ("Comparing Numbers") Compare numbers using the greater than, less tha… (Learn Zillion) More or Less---MathStart (story that is read aloud)
2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. 2	In Grade 1, students used nonstandard units (with no gaps or overlaps) to measure and compare lengths. In Grade 2, students select and use appropriate tools (rulers, yardsticks, meter sticks, and measuring tapes). They estimate and measure using standard whole units (inches, feet, centimeters, and meters). Students measure the length of an object using two different length units, (e.g., inches and feet), and describe how the two measurements relate to each other, (e.g., more inches than feet). Students compare the difference of two lengths using subtraction within 100. In Grade 3, students will use standard units to generate measurements with halves and fourths.	Learn Zillion Video Collection for Standard Math Project (p. 15) Math Project (p. 30) Math Project (p. 31) Math Project (p. 32) Math Project (p. 33) If the Shoe Fits Read Aloud Brainpop Jr. (Non-Standard Measurement) Brainpop Jr. (Inches and Feet) and (Centimeters and Meters) -iReady -Zearn -Prodigy
2.MD.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.	In Grade 1, students used nonstandard units (with no gaps or overlaps) to measure and compare lengths. In Grade 2, students select and use appropriate tools (rulers, yardsticks, meter sticks, and measuring tapes). They estimate and measure using standard whole units (inches, feet, centimeters, and meters). Students measure the length of an object using two different length units, (e.g., inches and feet), and describe how the two	Learn Zillion Video Comparing Inches and Cm Math Project (p. 29) Math Project (p. 30) -iReady

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	measurements relate to each other, (e.g., more inches than feet). Students compare the difference of two lengths using subtraction within 100. In Grade 3, students will use standard units to generate measurements with halves and fourths.	-Zearn -Prodigy
2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.	In Grade 1, students used nonstandard units (with no gaps or overlaps) to measure and compare lengths. In Grade 2, students select and use appropriate tools (rulers, yardsticks, meter sticks, and measuring tapes). They estimate and measure using standard whole units (inches, feet, centimeters, and meters). Students measure the length of an object using two different length units, (e.g., inches and feet), and describe how the two measurements relate to each other, (e.g., more inches than feet). Students compare the difference of two lengths using subtraction within 100. In Grade 3, students will use standard units to generate measurements with halves and fourths.	Learn Zillion Video on Measurement Estimation How Big is a Foot? Read Aloud -iReady -Zearn -Prodigy
2.MD.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.	In Grade 1, students used nonstandard units (with no gaps or overlaps) to measure and compare lengths. In Grade 2, students select and use appropriate tools (rulers, yardsticks, meter sticks, and measuring tapes). They estimate and measure using standard whole units (inches, feet, centimeters, and meters). Students measure the length of an object using two different length units, (e.g., inches and feet), and describe how the two measurements relate to each other, (e.g., more inches than feet). Students compare the difference of two lengths using subtraction within 100. In Grade 3, students will use standard units to generate measurements with halves and fourths.	Learn Zillion Video on Comparing Measurement Math Project (p. 30) Math Project (p. 31) Math Project (p. 35) -iReady -Zearn -Prodigy
2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same whole number units, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)	In Grade 1, students used addition and subtraction within 100 to solve word problems and used a symbol for an unknown number. In Grade 2, students use addition and subtraction within 100 to solve word problems involving lengths given in the same whole number units. They use drawings and equations and continue to use symbols for an unknown number to represent problems. They represent whole numbers and sums and differences within 100 on a number line. In Grade 3, students will apply measurement skills to find area and perimeter.	Math Milestone Student Handouts Video Collection for Standard Math Project (p. 15) -iReady -Zearn -Prodigy
2.MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,..., and represent whole number sums and differences within 100 on a number line diagram.	In Grade 1, students used addition and subtraction within 100 to solve word problems and used a symbol for an unknown number. In Grade 2, students use addition and subtraction within 100 to solve word problems involving lengths given in the same whole number units. They use drawings and equations and continue to use symbols for an unknown number to represent problems. They represent whole numbers and sums and differences within 100 on a number line. In Grade 3, students will apply measurement skills to find area and perimeter.	Learn Zillion Video Collection for Number Lines Number Line Song by Number Rock -iReady -Zearn -Prodigy
2.MD.10 Organize, represent, and interpret data with up to four categories; complete picture graphs when single-unit scales are provided; complete bar graphs when single-unit scales are provided; solve simple put together, take-apart, and compare problems in a graph.	In Grade 1, students organized and represented data with up to three categories. In Grade 2, they extend their learning of representing and interpreting data to four categories. Students measure lengths of several objects (to the nearest whole unit) and show the data by creating a line plot. They complete single-scale picture graphs or bar graphs. Also, students use addition and subtraction to solve problems involving data given in a graph Then in Grade 3, students will create a scale to represent a data set and work with scaled graphs.	Math Milestone Student Handouts Learn Zillion Video Collection for Standard Math Project (p. 15) Math Project (p. 16) Math Project (p. 17) Brainpop Jr. (Tally Charts and Bar Graphs) and (Pictographs) Lemonade For Sale Read Aloud Data! Mini math movie by Scratch Garden -iReady -Zearn -Prodigy

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UNIT 2: Addition and Subtraction within 200
Essential Questions: What are efficient ways to add and subtract numbers?
Big Idea: Composing and decomposing numbers
Big Idea: Strategies for adding and subtracting
Big Idea: Place value structure
Unit Vocabulary: **decompose & sum**

Connection to **Social Emotional Standards** and/or **Social Justice Standards**	Lesson with SEAD Theme -Explore opportunities to develop skills and talents -Seek help when faced with challenges or when frustrated with a task, skill or situation -Demonstrate confidence in the ability to complete simple tasks and challenges independently, while expressing positive attitudes towards self -Identify personal behaviors or reactions when experiencing basic emotions -Identify and begin to use strategies to regulate emotions and manage behaviors -Identify goals for classroom behavior and academic success -Identify how adults and peers can help with a goal -Describe what action steps can be taken to reach a short-term goal -Discuss obstacles that can get in the way of reaching a goal and ideas for handling those obstacles -Describe a time when you kept trying in a challenging situation -Explain how practice improves performance of a skill and can help in overcoming a challenge or setback
Connection to Vision of a Lakewood Ranger	-Critical & creative thinking -Communication -Collaboration -Growth mindset

Assessment of Learning Options How will we know if they learned this skill? (Consider adding ODE Checkpoint Assessments)	Representing and Solving Addition and Subtraction Problems Mini-Assessment Computation Strategies Module 2 Pre-assessment Module 2 Mid-unit assessment Module 2 End of Unit Assessment

Content Standards	**Learning and Performance Expectations** What must students know and be able to do?	**Resources Options**
2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	In Grade 1, students developed the understanding of equality and solved one-step word problems within 20. In Grade 2, students solve one- and two-step addition and subtraction word problems within 100 with unknowns in all positions. In future learning, students will solve two-step word problems	Math Milestones Student Handouts Computation Strategies Learn Zillion Understand a Word Problem Video

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	using the four operations with whole numbers. ESSENTIAL UNDERSTANDINGS • Real-world and mathematical situations can be represented using drawings	Learn Zillion 2-step Word Problem Video Learn Zillion What Can You Do To Make a Word Problem Easier Math Project (p.10) Math Project (p. 12) One Grain of Rice Read Aloud Brainpop Jr. (Solving a Word Problem) and (Choosing an Operation) -iReady -Zearn -Prodigy
2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.	In Grade 1, students added within 100 and subtracted multiples of 10 from multiples of 10 using strategies. They also mentally found 10 more or 10 less than a given two digit number. In Grade 2, students add and subtract fluently within 100 using strategies. Students add up to four two-digit numbers using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. When adding and subtracting within 1,000, students need to explain their strategies using models, drawings, and when appropriate, equations to justify their thinking. Students use their understanding of place value to mentally add and subtract 10 and 100 from a given number between 100−900. In Grade 3, students will extend their learning to add and subtract fluently to 1,000 using strategies. (Fluency is the ability to use efficient, accurate, and flexible methods for computing. Fluency does not imply timed tests).	Learn Zillion Video Collection for Standard -iReady -Zearn -Prodigy
2.NBT.B.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. 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.	In Grade 1, students added within 100 and subtracted multiples of 10 from multiples of 10 using strategies. They also mentally found 10 more or 10 less than a given two digit number. In Grade 2, students add and subtract fluently within 100 using strategies. Students add up to four two-digit numbers using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. When adding and subtracting within 1,000, students need to explain their strategies using models, drawings, and when appropriate, equations to justify their thinking. Students use their understanding of place value to mentally add and subtract 10 and 100 from a given number between 100−900. In Grade 3, students will extend their learning to add and subtract fluently to 1,000 using strategies. (Fluency is the ability to use efficient, accurate, and flexible methods for computing. Fluency does not imply timed tests).	Math Milestone Student Handouts Learn Zillion Video Collection for Standard -iReady -Zearn -Prodigy

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UNIT 3: Shapes and Time with Fraction Concepts
Essential Questions: How are shapes and time related to fractions?
Big Idea: composing and decomposing shapes
Big Idea: structure of analog and digital clocks
Big Idea: fractions
Vocabulary: angle, attribute, cube, edge, face, friction, geometry, horizontal, parallelogram, pentagon, polygon, quadrilateral, quarter past, quarter to, right angle, side, thirds, third of, three-dimensional shape, two-dimensional shape, vertex, vertical

Connection to **Social Emotional Standards** and/or **Social Justice Standards**	Lesson with SEAD Theme -Explore opportunities to develop skills and talents -Seek help when faced with challenges or when frustrated with a task, skill or situation -Demonstrate confidence in the ability to complete simple tasks and challenges independently, while expressing positive attitudes towards self -Identify personal behaviors or reactions when experiencing basic emotions -Identify and begin to use strategies to regulate emotions and manage behaviors -Identify goals for classroom behavior and academic success -Identify how adults and peers can help with a goal -Describe what action steps can be taken to reach a short-term goal -Discuss obstacles that can get in the way of reaching a goal and ideas for handling those obstacles -Describe a time when you kept trying in a challenging situation -Explain how practice improves performance of a skill and can help in overcoming a challenge or setback

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LAKEWOOD CITY SCHOOLS

Connection to Vision of a Lakewood Ranger	-Critical & creative thinking -Communication -Collaboration -Growth mindset
Assessment of Learning Options How will we know if they learned this skill?	Module 3 Pre-assessment Module 3 Mid-unit assessment Module 3 End of Unit Assessment

Suggested Pacing	Content Standards	Learning and Performance Expectations What must students know and be able to do?	Resources Options
	2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s.	In Grade 1, the foundation was developed for place value of tens and ones, and students read and write numerals to 120. This cluster is extending students' understanding of the base-ten system to include hundreds. In Grade 2, students develop the conceptual understanding of a group of ten tens as one "hundred". Students compare two three-digit numbers using symbols. Students count forward and backward within 1,000 starting at any number. They skip count by tens and hundreds starting at any number and skip count by fives starting at any multiple of five. Skip Counting builds the essential foundation for repeated addition, leading to multiplication in Grade 3. Students read and write numbers to 1,000 using base-ten numerals, number names, expanded form, and equivalent representations. In Grade 3, students will use their understanding of the base-ten system to round to the nearest 10 or 100.	Learn Zillion Skip Counting Video Math Project (p. 20) -iReady -Zearn -Prodigy
	2.MD.C.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	In Grade 1, students found the value (in connection to place value) of pennies and dimes. They learned to tell time (on digital and analog clocks) to the nearest hour and half-hour. In Grade 2, students solve problems with pennies, nickels, dimes, and quarters and their collective value (up to one dollar). Students solve word problems with addition and subtraction (within 100) using cents with cents and dollars with dollars; they do not use dollars and cents simultaneously. Students tell time to the nearest 5 minutes and use a.m. and p.m. correctly. In Grade 3, students will tell time to the nearest minute and solve elapsed time problems within 90 minutes. In Grade 4, students will be introduced to decimal notation and work with money problems involving both dollars and cents.	Learn Zillion Video Collection on Telling Time Brainpop Jr. (Time to the Quarter Hour and Half Hour), (Time to the Hour), (Time to the Minute), and (Parts of a Clock) The Grouchy Ladybug Read Aloud -iReady -Zearn -Prodigy
	2.G.A.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. Sizes are compared directly or visually, not compared by measuring.	In Grade 1, students composed shapes and reasoned with shapes and their attributes. They distinguished between defining attributes and non-defining attributes. Fraction concepts were introduced through the partitioning of circles and rectangles into two or four equal shares in real-world contexts. In Grade 2, students continue to compose, decompose, and reason with shapes and their attributes. Students use formal language (e.g., sides, vertices) to recognize and identify two- dimensional shapes; they recognize and identify cubes, rectangular prisms, cones, and cylinders. Students build a foundation for multiplication by partitioning rectangles into rows and columns of same-size squares. Students extend their knowledge of fractions by partitioning circles or rectangles into two, three, or four equal shares. In Grade 3, students will build on their reasoning skills with shapes and attributes. They will explore	Learn Zillion Video Collection for Standard Math Project (p. 21) Math Project (p. 22) Math Project (p. 25) Math Project (p. 26) Brainpop Jr. (Quadrilaterals), (Polygons) and (Solid Shapes) The Greedy Triangle Read Aloud

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		fractions by partitioning shapes into parts with equal areas and expressing the area of each part as a unit fraction. In the domain Number and Operations – Fractions, students will develop an understanding of fractions as numbers by working with fractions models to find equivalent fractions and to compare fractions.	Captain Invincible and the Space Shapes All About 3D Shapes Read Aloud -iReady -Zearn -Prodigy
	2.G.A.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.	In Grade 1, students composed shapes and reasoned with shapes and their attributes. They distinguished between defining attributes and non-defining attributes. Fraction concepts were introduced through the partitioning of circles and rectangles into two or four equal shares in real-world contexts. In Grade 2, students continue to compose, decompose, and reason with shapes and their attributes. Students use formal language (e.g., sides, vertices) to recognize and identify two- dimensional shapes; they recognize and identify cubes, rectangular prisms, cones, and cylinders. Students build a foundation for multiplication by partitioning rectangles into rows and columns of same-size squares. Students extend their knowledge of fractions by partitioning circles or rectangles into two, three, or four equal shares. In Grade 3, students will build on their reasoning skills with shapes and attributes. They will explore fractions by partitioning shapes into parts with equal areas and expressing the area of each part as a unit fraction. In the domain Number and Operations – Fractions, students will develop an understanding of fractions as numbers by working with fractions models to find equivalent fractions and to compare fractions.	Learn Zillion Video Collection for Standard Give Me Half Read Aloud Partitioning Shapes Video Brainpop Jr. (Basic Parts of a Whole) -iReady -Zearn -Prodigy

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UNIT 3: Shapes and Time with Fraction Concepts
Essential Questions: How are shapes and time related to fractions?
Big Idea: composing and decomposing shapes
Big Idea: structure of analog and digital clocks
Big Idea: fractions
Vocabulary: angle, attribute, cube, edge, face, friction, geometry, horizontal, parallelogram, pentagon, polygon, quadrilateral, quarter past, quarter to, right angle, side, thirds, third of, three-dimensional shape, two-dimensional shape, vertex, vertical

Connection to **Social Emotional Standards** and/or **Social Justice Standards**	Lesson with SEAD Theme -Explore opportunities to develop skills and talents -Seek help when faced with challenges or when frustrated with a task, skill or situation -Demonstrate confidence in the ability to complete simple tasks and challenges independently, while expressing positive attitudes towards self -Identify personal behaviors or reactions when experiencing basic emotions -Identify and begin to use strategies to regulate emotions and manage behaviors -Identify goals for classroom behavior and academic success -Identify how adults and peers can help with a goal -Describe what action steps can be taken to reach a short-term goal -Discuss obstacles that can get in the way of reaching a goal and ideas for handling those obstacles -Describe a time when you kept trying in a challenging situation -Explain how practice improves performance of a skill and can help in overcoming a challenge or setback
Connection to Vision of a Lakewood Ranger	-Critical & creative thinking -Communication -Collaboration -Growth mindset

Assessment of Learning Options How will we know if they learned this skill?	Module 3 Pre-assessment Module 3 Mid-unit assessment Module 3 End of Unit Assessment

Content Standards	**Learning and Performance Expectations** What must students know and be able to do?	**Resources Options**
2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s.	In Grade 1, the foundation was developed for place value of tens and ones, and students read and write numerals to 120. This cluster is extending students' understanding of the base-ten system to include hundreds. In Grade 2, students develop the conceptual understanding of a group of ten tens as one "hundred". Students compare two three-digit numbers using symbols. Students count forward and backward within 1,000 starting at any number. They skip count by tens and hundreds starting at any number and skip count by fives starting at any multiple of five. Skip Counting builds the essential foundation for repeated addition, leading to multiplication in Grade 3. Students read and write numbers to 1,000 using base-ten numerals, number names, expanded form, and equivalent representations. In Grade 3, students will use their understanding of the base-ten system to round to the nearest 10 or 100.	Learn Zillion Skip Counting Video Math Project (p. 20) -iReady -Zearn -Prodigy

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2.MD.C.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	In Grade 1, students found the value (in connection to place value) of pennies and dimes. They learned to tell time (on digital and analog clocks) to the nearest hour and half-hour. In Grade 2, students solve problems with pennies, nickels, dimes, and quarters and their collective value (up to one dollar). Students solve word problems with addition and subtraction (within 100) using cents with cents and dollars with dollars; they do not use dollars and cents simultaneously. Students tell time to the nearest 5 minutes and use a.m. and p.m. correctly. In Grade 3, students will tell time to the nearest minute and solve elapsed time problems within 90 minutes. In Grade 4, students will be introduced to decimal notation and work with money problems involving both dollars and cents.	Learn Zillion Video Collection on Telling Time Brainpop Jr. (Time to the Quarter Hour and Half Hour), (Time to the Hour), (Time to the Minute), and (Parts of a Clock) The Grouchy Ladybug Read Aloud -iReady -Zearn -Prodigy
2.G.A.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. Sizes are compared directly or visually, not compared by measuring.	In Grade 1, students composed shapes and reasoned with shapes and their attributes. They distinguished between defining attributes and non-defining attributes. Fraction concepts were introduced through the partitioning of circles and rectangles into two or four equal shares in real-world contexts. In Grade 2, students continue to compose, decompose, and reason with shapes and their attributes. Students use formal language (e.g., sides, vertices) to recognize and identify two- dimensional shapes; they recognize and identify cubes, rectangular prisms, cones, and cylinders. Students build a foundation for multiplication by partitioning rectangles into rows and columns of same-size squares. Students extend their knowledge of fractions by partitioning circles or rectangles into two, three, or four equal shares. In Grade 3, students will build on their reasoning skills with shapes and attributes. They will explore fractions by partitioning shapes into parts with equal areas and expressing the area of each part as a unit fraction. In the domain Number and Operations – Fractions, students will develop an understanding of fractions as numbers by working with fractions models to find equivalent fractions and to compare fractions.	Learn Zillion Video Collection for Standard Math Project (p. 21) Math Project (p. 22) Math Project (p. 25) Math Project (p. 26) Brainpop Jr. (Quadrilaterals), (Polygons) and (Solid Shapes) The Greedy Triangle Read Aloud Captain Invincible and the Space Shapes All About 3D Shapes Read Aloud -iReady -Zearn -Prodigy
2.G.A.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.	In Grade 1, students composed shapes and reasoned with shapes and their attributes. They distinguished between defining attributes and non-defining attributes. Fraction concepts were introduced through the partitioning of circles and rectangles into two or four equal shares in real-world contexts. In Grade 2, students continue to compose, decompose, and reason with shapes and their attributes. Students use formal language (e.g., sides, vertices) to recognize and identify two- dimensional shapes; they recognize and identify cubes, rectangular prisms, cones, and cylinders. Students build a foundation for multiplication by partitioning rectangles into rows and columns of same-size squares. Students extend their knowledge of fractions by partitioning circles or rectangles into two, three, or four equal shares. In Grade 3, students will build on their reasoning skills with shapes and attributes. They will explore fractions by partitioning shapes into parts with equal areas and expressing the area of each part as a unit fraction. In the domain Number and Operations – Fractions, students will develop an understanding of fractions as numbers by working with fractions models to find equivalent fractions and to compare fractions.	Learn Zillion Video Collection for Standard Give Me Half Read Aloud Partitioning Shapes Video Brainpop Jr. (Basic Parts of a Whole) -iReady -Zearn -Prodigy

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UNIT 4: Addition and Subtraction within 1,000
Essential Questions: What is the relationship between addition and subtraction?
Big Idea: place value
Big Idea: 2-3 digit numbers
Big Idea: strategies for addition and subtraction
Vocabulary: No new vocabulary

Connection to **Social Emotional Standards** and/or **Social Justice Standards**

Lesson with SEAD Theme
-Explore opportunities to develop skills and talents
-Seek help when faced with challenges or when frustrated with a task, skill or situation
-Demonstrate confidence in the ability to complete simple tasks and challenges independently, while expressing positive attitudes towards self
-Identify personal behaviors or reactions when experiencing basic emotions
-Identify and begin to use strategies to regulate emotions and manage behaviors
-Identify goals for classroom behavior and academic success
-Identify how adults and peers can help with a goal
-Describe what action steps can be taken to reach a short-term goal
-Discuss obstacles that can get in the way of reaching a goal and ideas for handling those obstacles
-Describe a time when you kept trying in a challenging situation
-Explain how practice improves performance of a skill and can help in overcoming a challenge or setback

Connection to Vision of a Lakewood Ranger

-Critical & creative thinking
-Communication
-Collaboration
-Growth mindset

Assessment of Learning Options
How will we know if they learned this skill?

Understanding place value
Subtraction Within 20 Mini-Assessment
Grade 2 Math Fact Fluency
Computation Strategies
Computation Strategies

Content Standards	**Learning and Performance Expectations** What must students know and be able to do?	**Resources Options**
2.OA.B.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. See standard 1.OA.6 for a list of mental strategies.	In Kindergarten and Grade 1, students used models and strategies to develop fluency within 5 and 10 for addition and subtraction. In Grade 2, students develop mental strategies to fluently add and subtract within 20. (See standard 1.OA.6 for a list of strategies.) Later in Grade 2, students will fluently add and subtract within 100 (2.NBT.5). (Fluency is the ability to use efficient, accurate, and flexible methods for computing. Fluency does not imply timed tests).	Math Milestones Student Handouts Computation Strategies Learn Zillion Video Collection for Standard Math Project (p. 11) The Mission of Addition Read Aloud Mission: Addition Read Aloud The Action of Subtraction Read Aloud

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		-iReady -Zearn -Prodigy
2.NBT.B.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	In Grade 1, students added within 100 and subtracted multiples of 10 from multiples of 10 using strategies. They also mentally found 10 more or 10 less than a given two digit number. In Grade 2, students add and subtract fluently within 100 using strategies. Students add up to four two-digit numbers using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. When adding and subtracting within 1,000, students need to explain their strategies using models, drawings, and when appropriate, equations to justify their thinking. Students use their understanding of place value to mentally add and subtract 10 and 100 from a given number between 100–900. In Grade 3, students will extend their learning to add and subtract fluently to 1,000 using strategies. (Fluency is the ability to use efficient, accurate, and flexible methods for computing. Fluency does not imply timed tests).	Math Milestone Student Handouts Curious Subtract Task Learn Zillion Video Collection for Standard Brainpop Jr. (Addition and Subtraction Fact Families) -iReady -Zearn -Prodigy
2.NBT.B.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.	In Grade 1, students added within 100 and subtracted multiples of 10 from multiples of 10 using strategies. They also mentally found 10 more or 10 less than a given two digit number. In Grade 2, students add and subtract fluently within 100 using strategies. Students add up to four two-digit numbers using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. When adding and subtracting within 1,000, students need to explain their strategies using models, drawings, and when appropriate, equations to justify their thinking. Students use their understanding of place value to mentally add and subtract 10 and 100 from a given number between 100–900. In Grade 3, students will extend their learning to add and subtract fluently to 1,000 using strategies. (Fluency is the ability to use efficient, accurate, and flexible methods for computing. Fluency does not imply timed tests).	Learn Zillion Video Collection for Standard -iReady -Zearn -Prodigy
2.NBT.2 Count forward and backward within 1,000 by ones, tens, and hundreds starting at any number; skip-count by 5s starting at any multiple of 5.	In Grade 1, the foundation was developed for place value of tens and ones, and students read and wrote numerals to 120. This cluster is extending students' understanding of the base-ten system to include hundreds. In Grade 2, students develop the conceptual understanding of a group of ten tens as one "hundred". Students compare two three-digit numbers using symbols. Students count forward and backward within 1,000 starting at any number. They skip count by tens and hundreds starting at any number and skip count by fives starting at any multiple of five. Skip Counting builds the essential foundation for repeated addition, leading to multiplication in Grade 3. Students read and write numbers to 1,000 using base-ten numerals, number names, expanded form, and equivalent representations. In Grade 3, students will use their understanding of the base-ten system to round to the nearest 10 or 100.	Learn Zillion Skip Counting Video Math Project (p. 20) -iReady -Zearn -Prodigy
2.NBT.B.8 Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.	In Grade 1, students added within 100 and subtracted multiples of 10 from multiples of 10 using strategies. They also mentally found 10 more or 10 less than a given two digit number. In Grade 2, students add and subtract fluently within 100 using strategies. Students add up to four two-digit numbers using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. When adding and subtracting within 1,000, students need to explain their strategies using models, drawings, and when appropriate, equations to justify their thinking. Students use their understanding of place value to mentally add and subtract 10 and 100 from a given number between 100–900. In Grade 3, students will extend their learning to add and subtract fluently to 1,000 using strategies. (Fluency is the ability to use efficient, accurate, and flexible methods for computing. Fluency does not imply timed tests).	Learn Zillion Video Collection -iReady -Zearn -Prodigy
2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. Explanations may be supported by drawings or objects.	In Grade 1, students added within 100 and subtracted multiples of 10 from multiples of 10 using strategies. They also mentally found 10 more or 10 less than a given two digit number. In Grade 2, students add and subtract fluently within 100 using strategies. Students add up to four two-digit numbers using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. When adding and subtracting within 1,000, students need to explain their strategies using models, drawings, and when appropriate, equations to justify their thinking. Students use their understanding of place value to mentally add and subtract 10 and 100 from a given number between 100–900. In Grade 3, students will extend their learning to add and subtract fluently to 1,000 using strategies. (Fluency is the ability to use efficient, accurate, and flexible methods for computing. Fluency does not imply timed tests).	Learn Zillion Video Collection for Standard -iReady -Zearn -Prodigy

Grade: 2
Course: Math
Year: 2023

UNIT 5: Money, Data, and Customary Measurement
Essential Questions: How can place value understanding help me understand the relationship between addition and subtraction within 1,000?
Big Idea: Place value
Big Idea: Properties of operations
Vocabulary: feet, inch, interval, line plot, yard

Connection to **Social Emotional Standards** and/or **Social Justice Standards**

Lesson with SEAD Theme
-Explore opportunities to develop skills and talents
-Seek help when faced with challenges or when frustrated with a task, skill or situation
-Demonstrate confidence in the ability to complete simple tasks and challenges independently, while expressing positive attitudes towards self
-Identify personal behaviors or reactions when experiencing basic emotions
-Identify and begin to use strategies to regulate emotions and manage behaviors
-Identify goals for classroom behavior and academic success
-Identify how adults and peers can help with a goal
-Describe what action steps can be taken to reach a short-term goal
-Discuss obstacles that can get in the way of reaching a goal and ideas for handling those obstacles
-Describe a time when you kept trying in a challenging situation
-Explain how practice improves performance of a skill and can help in overcoming a challenge or setback

Connection to Vision of a Lakewood Ranger

-Critical & creative thinking
-Communication
-Collaboration
-Growth mindset

Assessment of Learning Options How will we know if they learned this skill?	Module 5 Pre-assessment Module 5 Mid-unit assessment Module 5 End of Unit Assessment

Content Standards	**Learning and Performance Expectations** **What must students know and be able to do?**	**Resources Options**
2.MD.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.	In Grade 1, students used nonstandard units (with no gaps or overlaps) to measure and compare lengths. In Grade 2, students select and use appropriate tools (rulers, yardsticks, meter sticks, and measuring tapes). They estimate and measure using standard whole units (inches, feet, centimeters, and meters). Students measure the length of an object using two different length units, (e.g., inches and feet), and describe how the two measurements relate to each other, (e.g., more inches than feet). Students compare the difference of two lengths using subtraction within 100. In Grade 3, students will use standard units to generate measurements with halves and fourths.	Learn Zillion Video Comparing Inches and Cm Math Project (p. 29) Math Project (p. 30) -iReady -Zearn -Prodigy
2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.	In Grade 1, students used nonstandard units (with no gaps or overlaps) to measure and compare lengths. In Grade 2, students select and use appropriate tools (rulers, yardsticks, meter sticks, and measuring tapes). They estimate and measure using standard whole units (inches, feet, centimeters, and meters). Students measure the length of an object using two different length units, (e.g., inches and feet), and describe how the two measurements relate to each other, (e.g., more inches than feet). Students compare the difference of two lengths using subtraction within 100. In Grade 3, students will use standard units to	Learn Zillion Video on Measurement Estimation How Big is a Foot? Read Aloud -iReady -Zearn -Prodigy

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	generate measurements with halves and fourths.	
2.MD.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.	In Grade 1, students used nonstandard units (with no gaps or overlaps) to measure and compare lengths. In Grade 2, students select and use appropriate tools (rulers, yardsticks, meter sticks, and measuring tapes). They estimate and measure using standard whole units (inches, feet, centimeters, and meters). Students measure the length of an object using two different length units, (e.g., inches and feet), and describe how the two measurements relate to each other, (e.g., more inches than feet). Students compare the difference of two lengths using subtraction within 100. In Grade 3, students will use standard units to generate measurements with halves and fourths.	Learn Zillion Video on Comparing Measurement Math Project (p. 30) Math Project (p. 31) Math Project (p. 35) -iReady -Zearn -Prodigy
2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same whole number units, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)	In Grade 1, students used addition and subtraction within 100 to solve word problems and used a symbol for an unknown number. In Grade 2, students use addition and subtraction within 100 to solve word problems involving lengths given in the same whole number units. They use drawings and equations and continue to use symbols for an unknown number to represent problems. They represent whole numbers and sums and differences within 100 on a number line. In Grade 3, students will apply measurement skills to find area and perimeter.	Math Milestone Student Handouts Video Collection for Standard Math Project (p. 15) -iReady -Zearn -Prodigy
2.MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,..., and represent whole number sums and differences within 100 on a number line diagram.	In Grade 1, students used addition and subtraction within 100 to solve word problems and used a symbol for an unknown number. In Grade 2, students use addition and subtraction within 100 to solve word problems involving lengths given in the same whole number units. They use drawings and equations and continue to use symbols for an unknown number to represent problems. They represent whole numbers and sums and differences within 100 on a number line. In Grade 3, students will apply measurement skills to find area and perimeter.	Learn Zillion Video Collection for Number Lines Number Line Song by Number Rock -iReady -Zearn -Prodigy
2.MD.8 Solve problems with money. a. Identify nickels and quarters by name and value. b. Find the value of a collection of quarters, dimes, nickels, and pennies. c. Solve word problems by adding and subtracting within 100, dollars with dollars and cents with cents (not using dollars and cents simultaneously) using the $ and ℂ symbols appropriately (not including decimal notation)	In Grade 1, students found the value (in connection to place value) of pennies and dimes. They learned to tell time (on digital and analog clocks) to the nearest hour and half-hour. In Grade 2, students solve problems with pennies, nickels, dimes, and quarters and their collective value (up to one dollar). Students solve word problems with addition and subtraction (within 100) using cents with cents and dollars with dollars; they do not use dollars and cents simultaneously. Students tell time to the nearest 5 minutes and use a.m. and p.m. correctly. In Grade 3, students will tell time to the nearest minute and solve elapsed time problems within 90 minutes. In Grade 4, students will be introduced to decimal notation and work with money problems involving both dollars and cents.	Learn Zillion Video Collection on Standard Brainpop Jr. (Dollars and Cents), (Counting Coins), and (Equivalent Coins) A Dollar, a Penny, How Much, How Many Read Aloud The Coin Counting Book -iReady -Zearn -Prodigy
2.MD.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit or by making repeated measurements of the same object. Show the measurements by creating a line plot, where the horizontal scale is marked off in whole number units.	In Grade 1, students organized and represented data with up to three categories. In Grade 2, they extend their learning of representing and interpreting data to four categories. Students measure lengths of several objects (to the nearest whole unit) and show the data by creating a line plot. They complete single-scale picture graphs or bar graphs. Also, students use addition and subtraction to solve problems involving data given in a graph.Then in Grade 3, students will create a scale to represent a data set and work with scaled graphs.	Learn Zillion Video Collection for Standard -iReady -Zearn -Prodigy
2.G.1 Recognize and identify triangles, quadrilaterals, pentagons, and hexagons based on the number of sides or vertices. Recognize and identify cubes, rectangular prisms, cones, and cylinders.	In Grade 1, students composed shapes and reasoned with shapes and their attributes. They distinguished between defining attributes and non-defining attributes. Fraction concepts were introduced through the partitioning of circles and rectangles into two or four equal shares in real-world contexts. In Grade 2, students continue to compose, decompose, and reason with shapes and their attributes. Students use formal language (e.g., sides, vertices) to recognize and identify two- dimensional shapes; they recognize and identify cubes, rectangular prisms, cones, and cylinders. Students build a foundation for multiplication by partitioning rectangles into rows and columns of same-size squares. Students extend their knowledge of fractions by partitioning circles or rectangles into two, three, or four equal shares. In Grade 3, students will build on their reasoning skills with shapes and attributes. They will explore fractions by partitioning shapes into parts with equal areas and expressing the area of each part as a unit fraction. In the domain Number and Operations – Fractions, students will develop an understanding of fractions as numbers by working with fractions models to find equivalent fractions and to compare fractions.	Learn Zillion Video Collection for Standard Math Project (p. 21) Math Project (p. 22) Math Project (p. 25) Math Project (p. 26) Brainpop Jr. (Quadrilaterals), (Polygons) and (Solid Shapes) The Greedy Triangle Read Aloud Captain Invincible and the Space Shapes All About 3D Shapes Read Aloud -iReady -Zearn -Prodigy

Grade: 2
Course: Math
Year: 2023

UNIT 6: Multiplication and Division Foundations
Essential Questions: How can I count objects efficiently?
Big Idea: Grouping strategies
Big Idea: Equal groups
Big Idea: Efficiency
Vocabulary: array, column, equal groups, even numbers, odd numbers, repeated addition, row

Connection to **Social Emotional Standards** and/or **Social Justice Standards**

Lesson with SEAD Theme
-Explore opportunities to develop skills and talents
-Seek help when faced with challenges or when frustrated with a task, skill or situation
-Demonstrate confidence in the ability to complete simple tasks and challenges independently, while expressing positive attitudes towards self
-Identify personal behaviors or reactions when experiencing basic emotions
-Identify and begin to use strategies to regulate emotions and manage behaviors
-Identify goals for classroom behavior and academic success
-Identify how adults and peers can help with a goal
-Describe what action steps can be taken to reach a short-term goal
-Discuss obstacles that can get in the way of reaching a goal and ideas for handling those obstacles
-Describe a time when you kept trying in a challenging situation
-Explain how practice improves performance of a skill and can help in overcoming a challenge or setback

Connection to Vision of a Lakewood Ranger

-Critical & creative thinking
-Communication
-Collaboration
-Growth mindset

Assessment of Learning Options How will we know if they learned this skill?	Understanding place value Subtraction Within 20 Mini-Assessment Grade 2 Math Fact Fluency

Content Standards	**Learning and Performance Expectations** What must students know and be able to do?	**Resources Options**
2.OA.B.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. See standard 1.OA.6 for a list of mental strategies.	In Kindergarten and Grade 1, students used models and strategies to develop fluency within 5 and 10 for addition and subtraction. In Grade 2, students develop mental strategies to fluently add and subtract within 20. (See standard 1.OA.6 for a list of strategies.) Later in Grade 2, students will fluently add and subtract within 100 (2.NBT.5). (Fluency is the ability to use efficient, accurate, and flexible methods for computing. Fluency does not imply timed tests).	Math Milestones Student Handouts Computation Strategies Learn Zillion Video Collection for Standard Math Project (p. 11) The Mission of Addition Read Aloud Mission: Addition Read Aloud The Action of Subtraction Read Aloud -iReady -Zearn

Grade: 2
Course: Math
Year: 2023

		-Prodigy
2.OA.C.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.	In previous grades, students learned that addition involves combining groups of objects. In Grade 2, this cluster explores number patterns which sets the foundation for multiplicative thinking through repeated addition. In Grade 3, students will apply the patterns, strategies, and decompositions used in repeated addition to multiplication and division situations. They will also in Grade 3 move from arrays to area models for multiplication and division situations.	Learn Zillion Video Collection for Standard Math Project (p. 13) Brainpop Jr. (Even and Odd)
2.OA.C.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.	In previous grades, students learned that addition involves combining groups of objects. In Grade 2, this cluster explores number patterns which sets the foundation for multiplicative thinking through repeated addition. In Grade 3, students will apply the patterns, strategies, and decompositions used in repeated addition to multiplication and division situations. They will also in Grade 3 move from arrays to area models for multiplication and division situations.	Learn Zillion Video Collection for Standard Math Project (p. 14) Horray! Arrays! Read Aloud Brainpop Jr. (Arrays) -iReady -Zearn -Prodigy
2.G.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	In Grade 1, students composed shapes and reasoned with shapes and their attributes. They distinguished between defining attributes and non-defining attributes. Fraction concepts were introduced through the partitioning of circles and rectangles into two or four equal shares in real-world contexts. In Grade 2, students continue to compose, decompose, and reason with shapes and their attributes. Students use formal language (e.g., sides, vertices) to recognize and identify two- dimensional shapes; they recognize and identify cubes, rectangular prisms, cones, and cylinders. Students build a foundation for multiplication by partitioning rectangles into rows and columns of same-size squares. Students extend their knowledge of fractions by partitioning circles or rectangles into two, three, or four equal shares. In Grade 3, students will build on their reasoning skills with shapes and attributes. They will explore fractions by partitioning shapes into parts with equal areas and expressing the area of each part as a unit fraction. In the domain Number and Operations – Fractions, students will develop an understanding of fractions as numbers by working with fractions models to find equivalent fractions and to compare fractions.	Learn Zillion Video Collection for Standard -iReady -Zearn -Prodigy