

**COMMON CORE ESSENTIAL ELEMENTS
AND RANGE OF COMPLEXITY
*SECOND GRADE***

Second Grade Mathematics Standards: *Operations and Algebraic Thinking*

CCSS Grade-Level Clusters	Common Core Essential Elements	Range of Complexity Examples
<i>Represent and solve problems involving addition and subtraction</i>	AA Student Will:	
<p>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.</p>	<p>EE2.OA.1. Add and subtract to solve real world one-step story problems from 0-20 when the result is unknown.</p>	<p>EE2.OA.1. Add and subtract to solve real world one-step story problems from 0-20 when any number in the problem is unknown (result, start, change, difference). Ex. During adaptive P.E., there are five students and three balls. Determine how many more balls are needed so every student will have a ball, representing the unknown with a blank (e.g., three balls + __ balls is equal to five balls). Ex. Given a real-world story involving addition or subtraction, represent the problem using numbers and the + or - symbol, and solve the problem, with the unknown as any number.</p> <p>EE2.OA.1. Add and subtract to solve real world one-step story problems from 0-20 when the result is unknown. Ex. Given concrete objects, represent and solve a story problem with addition or subtraction with the unknown as the result. Ex. Given concrete objects, solve a simple one-step story problem using subtraction.</p> <p>EE2.OA.1. Given the equation, add to solve real world one-step story problems from 0-10. Ex. Using a dry erase board with pictures in place of numbers, solve a real world addition problem (e.g., add the number of girls and boys to determine the number of pencils needed). Ex. Given a felt board story problem about Johnny Appleseed, point to the number or picture showing the total apples that he planted in one day plus another day.</p> <p>EE2.OA.1. Identify the object(s) that appear in the real world one-step story problem. Ex. Given a story problem and concrete representations of the objects point to the correct object(s). Ex. Given a felt board story problem about Johnny Appleseed and asked what you are adding, indicate apples.</p>

Second Grade Mathematics Standards: Operations and Algebraic Thinking

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Add and subtract within 20		AA Student Will:
2.OA.2. Fluently add and subtract within 20 using mental strategies. ⁵ By end of Grade 2, know from memory all sums of two one-digit numbers.	EE2.OA.2. N/A (See EE2.NBT.7)	

Second Grade Mathematics Standards: Operations and Algebraic Thinking

CCSS Grade-Level Clusters	Common Core Essential Elements	Range of Complexity Examples
Work with equal groups of objects to gain foundations for multiplication		AA Student Will:
2.OA.3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.	EE2.OA.3. Equally distribute even numbers of objects between two groups.	<p>EE2.OA.3. Determine that a quantity of objects is even or odd by separating them into two groups. Ex. Given a X quantity of objects, distribute them into two groups. Indicate that if there are leftovers, the quantity is odd and if the quantity divides evenly, the number is even. Ex. Given two plastic rings and nine cubes distribute the cubes evenly into the rings and determine if there are any leftovers. Indicate if the number of cubes was even or odd.</p> <p>EE2.OA.3. Equally distribute even numbers of objects between two groups. Ex. Distribute eight objects equally between two boxes and count the total number of objects in each box. Ex. Divide 10 crayons into two equal collection cans.</p> <p>EE2.OA.3. Separate objects into two groups. Ex. Given an assortment of objects, divide into two groups and indicate how many in each group. Ex. Given counting cubes in two sizes, sort them into two piles.</p> <p>EE2.OA.3. Make two groups of two. Ex. Given a group of four objects, two each of two unlike objects (e.g., a ball and a box), separate them into two groups of two with like objects in each group. Ex. Given two unlike objects (e.g., a cube and a pyramid), separate them. Then, when shown two objects that match the previously presented objects, place them with the matching object to make a group (two</p>

⁵ See standard 1.OA.6 for a list of mental strategies.

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<i>Work with equal groups of objects to gain foundations for multiplication</i>		AA Student Will:
		cubes, two pyramids). Ex. Group objects into like sets.
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.	EE2.OA.4. Use addition to find the total number of objects arranged within equal groups up to a total of 10.	<p>EE2.OA.4. Use addition to find the total number of objects arranged within equal groups beyond 10. Ex. Using paper plates, put equal amount of objects on each plate (1-6), combine and solve for total number of objects. Ex. Given a pocket chart, arrange 12 red cards into sets of equal groups and tell if there is another way the cards could be put into equal groups.</p> <p>EE2.OA.4. Use addition to find the total number of objects arranged within equal groups up to a total of 10. Ex. Add two equal groups of counting bears to get a total. Ex. Given four large blocks and four small blocks, match them into like groups and indicate how many objects there are in all.</p> <p>EE2.OA.4. Recognize that two groups are made up of equal quantities up to a total of less than 10. Ex. Given three sets of objects, find the sets that contain equal amounts in each and state the number. Ex. Given bags of objects, two of which have two objects and one of which have one object, find the bags that contain an equal number of objects.</p> <p>EE2.OA.4. Differentiate same/different when presented with two objects. Ex. Given two objects (ball and cup), indicate if they are the same or different. Ex. Given a variety of items, match two like items.</p>

Second Grade Mathematics: *Number and Operations in Base Ten*

CCSS Grade-Level Clusters	Common Core Essential Elements	Range of Complexity Examples
<i>Understand place value</i>		AA Student Will:
2.NBT.1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g.,	EE2.NBT.1. Represent numbers through 30 with sets of	<p>EE2.NBT.1. Put numbers through 30 into sets of tens and ones with numbers. Ex. Given a picture of 24 objects, indicate/circle two groups of 10 and four ones. Tell how many tens there are and how many ones there are. Ex. Given a place value chart and the prompt, "Show me '20,'" indicate that the "2" goes in the tens</p>

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<p><i>Understand place value</i></p> <p>706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:</p> <ul style="list-style-type: none"> ▪ 100 can be thought of as a bundle of ten tens-called a “hundred.” ▪ 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). 	<p>tens and ones with objects in columns or arrays.</p>	<p>AA Student Will:</p> <p>column and the “0” goes in the ones place.</p> <p>EE2.NBT.1. Represent numbers through 30 with sets of tens and ones with objects in columns or arrays. Ex. Given a vertical pocket chart (3 columns of 10 each), insert colored index cards to fill in the column(s) to indicate the number of tens and ones. Ex. When hearing a story that involves groups of 10, collect groups of 10, and gather them, with remainder ones not included. Ex. Given popsicle sticks less than or equal to 30, make groups of tens and ones. Ex. Given an interactive whiteboard, create groups of tens and ones by pulling over items into a collection area.</p> <p>EE2.NBT.1. Indicate that 10 ones equals one 10 and zero ones (base 10). Ex. Given 10 objects (i.e., 10 paperclips, 10 discs), place them on a straight-line grid. Ex. Given a model or a template, create one set of 10.</p> <p>EE2.NBT.1. Demonstrates one-to-one correspondence. Ex. Given five objects and five boxes, place one object in each box. Ex. Put a note into every student’s cubby.</p>
<p>2.NBT.2. Count within 1000; skip-count by 5s, 10s, and 100s.</p>	<p>EE2.NBT.2.a. Count from 1 to 30 (count with meaning; cardinality).</p>	<p>EE2.NBT.2.a. Count beyond 30 (count with meaning; cardinality). Ex. Count objects beyond 30. Ex. Count tally marks beyond 30. Ex. During calendar time, count up to 31 days on the calendar. Ex. Count the students in line for lunch. Ex. Recognize errors in others’ counting from 1 to 30.</p> <p>EE2.NBT.2.a. Count from 1 to 30 (count with meaning; cardinality). Ex. Count 30 using counting cubes. Ex. Count the number of days (within 30) until a field trip.</p> <p>EE2.NBT.2.a. Count numbers 1 to 20, skipping numbers or repeating. Ex. Count 1-5. Ex. Count 1-10. Ex. Count 1-20.</p> <p>EE2.NBT.2.a. Repeat numbers 1 to 30.</p>

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Understand place value		AA Student Will:
		<p>Ex. During calendar time, repeat the date.</p> <p>Ex. When swinging on the playground, imitate the teacher calling out the swings back and forth.</p> <p>Ex. Count with the teacher from 1 to 30.</p>
	<p>EE2.NBT.2.b. Name the next number in a sequence between 1 and 10.</p>	<p>EE2.NBT.2.b. Count forward beginning from a given number within the known sequence 2 to 10 (instead of having to begin at one).</p> <p>Ex. During calendar time, start on the day's date and count forward up to 10.</p> <p>Ex. Using a number path, start on a given number and count forward up to 10.</p> <p>Ex. Given a number, count forward to 10.</p> <p>Ex. Given two sets and told the quantity in the first set, continue counting on the next set to find the total number of the two sets.</p> <p>EE2.NBT.2.b. Name the next number in a sequence between 1 and 10.</p> <p>Ex. Given a sequence of numbers, responds with the next number in the sequence (e.g., 5, 6, 7, name 8).</p> <p>Ex. While playing the game, "Say the next number," correctly identify the next number between 1 and 10.</p> <p>Ex. When counting off, say the next number in correct sequence when called on.</p> <p>EE2.NBT.2.b. Indicate the higher number in a progression of numbers (with or without gaps).</p> <p>Ex. Given a number sequence (e.g., given 1, 2, 3, 4, respond with any higher number).</p> <p>Ex. Given a number, pick a higher number.</p> <p>EE2.NBT.2.b. Communicate a number.</p> <p>Ex. When numbering off into groups, respond with any number when it's his or her turn.</p> <p>Ex. When taking lunch counts, indicate his or her part of the group with a number.</p>
<p>2.NBT.3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.</p>	<p>EE2.NBT.3. Identify number symbols 1 to 30.</p>	<p>EE2.NBT.3. Express number symbols beyond 30.</p> <p>Ex. Asked to produce a number, correctly produce the number.</p> <p>Ex. Given a calendar and asked to identify a date, correctly identify the date.</p> <p>Ex. Given a numbers chart and asked to identify a number, correctly identify the number.</p> <p>EE2.NBT.3. Identify number symbols 1 to 30.</p> <p>Ex. Play a game that requires number symbol recognition from 1 to 30 (e.g., BINGO).</p>

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Understand place value		<p>AA Student Will:</p> <p>Ex. While playing the game "I Spy" with numbers around the room, identify the number called.</p> <p>Ex. Identify number symbols when they are arranged on the desk in front of them.</p> <p>EE2.NBT.3. Identify number symbols 1-10.</p> <p>Ex. Given number cards from 1-10, win the card by identifying the number on the card.</p> <p>Ex. Given a number path from 1-10, identify the prompted number.</p> <p>Ex. Given numbered paper fish on fishing poles, identify the number on the fish.</p> <p>Ex. Given number symbols written on the board, identify number symbols from 1 to 10.</p> <p>Ex. Use numbers 1 to 10 to represent quantities.</p> <p>EE2.NBT.3.a. Differentiate between numbers and letters.</p> <p>Ex. When presented with a letter and a number, pick out the number.</p>
<p>2.NBT.4. Compare two, three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p>	<p>EE2.NBT.4. Compare sets of objects and numbers using appropriate vocabulary (more, less, equal).</p>	<p>EE2.NBT.4. Compare sets of objects and numbers using appropriate vocabulary as equal or more or less when two or fewer units apart.</p> <p>Ex. When given two sets of objects, a box with 10 and a box of nine identify that the box with 10 has one more and associate the numeral.</p> <p>Ex. When given two reward strips with stickers two or less units apart, determine which strip has more reward stickers on it.</p> <p>Ex. Given two groups of three red counters, determine that they are equal.</p> <p>EE2.NBT.4. Compare sets of objects and numbers using appropriate vocabulary (more, less, equal).</p> <p>Ex. Given a four and a six, determine that six is more than four.</p> <p>Ex. Given two groups of three red counters, determine that they are equal.</p> <p>EE2.NBT.4. Determine equality of sets of objects using appropriate vocabulary (equal).</p> <p>Ex. Given sets of two bears and two apples, be able to indicate that the sets are equal.</p> <p>Ex. Given two sets, two of which are equal, be able to indicate the sets that are equal.</p> <p>Ex. John has three bears and Susie has two bears. John has one more bear than Susie.</p> <p>EE2.NBT.4. Match groups of objects.</p> <p>Ex. Given two sets of objects match like groups.</p>

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Understand place value		AA Student Will:
		Ex. Given a set of two objects, assembles two objects in a group to match the given set. Ex. When presented with three groups of objects (e.g., two groups of one cube and a group of two cubes), match the two with the same number of objects in it.

Second Grade Mathematics: Number and Operations in Base Ten

CCSS Grade-Level Clusters	Common Core Essential Elements	Range of Complexity Examples
Use place value understanding and properties of operations to add and subtract		AA Student Will:
<p>2.NBT.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p>	<p>EE2.NBT.5.a. Identify the meaning of the "+" sign (i.e., combine, plus, add), and the "=" sign (equal).</p>	<p>EE2.NBT.5.a. Identify the meaning of the "+" sign (i.e., combine, plus, add), the "-" sign (minus, take away, less), and the "=" sign (equal), and the "-" sign (minus, take away, less). Ex. Given three groups of objects representing a subtraction equation, identify the correct sign to use. Ex. Given a subtraction equation, place the minus sign and the equal sign in the correct places.</p> <p>EE2.NBT.5.a. Identify the meaning of the "+" sign (i.e., combine, plus, add), and the "=" sign (equal). Ex. Given an equation, point to the plus or equal sign in an equation. Ex. Given three groups of objects (two addends and the sum), identify the "+" sign.</p> <p>EE2.NBT.5.a. Recognize the "+" and "=" signs. Ex. When shown a group of symbols, point to/identify the plus/equal sign when prompted by the teacher. Ex. When shown the plus/equal signs taped on the floor, indicate the sign when prompted by the teacher. Ex. When shown the plus/equal signs drawn on the board, indicate the sign when prompted by the teacher.</p> <p>EE2.NBT.5.a. Match the "+" and "=" signs. Ex. When given a cue, match the plus sign (e.g., The teacher shows a "+" sign and an "=" then points to the "+" sign. The teacher says, "This is a plus sign. Pick the one that is the same."). Ex. When given a cue, match the equal sign (e.g., The teacher shows a "+" sign and an "=" then points to the "=" sign. The teacher says, "This is an equal sign. Pick the one that is the same.").</p>

Second Grade Mathematics: Number and Operations in Base Ten

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Use place value understanding and properties of operations to add and subtract		AA Student Will:
		Ex. When given two cards with plus/equal signs and one distracter, match the appropriate sign.
	<p>EE2.NBT.5.b. Using concrete examples, compose and decompose numbers up to 10 in more than one way.</p>	<p>EE2.NBT.5.b. Using numbers or representations, compose and decompose numbers up to 10 in more than one way.</p> <p>Ex. Given pictures of seven grizzly bears, identify one group of three and one group of four as decomposing seven, and one group of two and one group of five as decomposing seven.</p> <p>Ex. When shown the number five, indicate that it is made up of one and four, or two and three.</p> <p>Ex. Shown groups of dots, recognize the quantity automatically.</p> <p>Ex. Given a triangle graphic organizer, with the number 10 in the tip, place numbers in the base angles to show the decomposition of 10.</p> <div data-bbox="751 690 1554 820" style="text-align: center;"> </div> <p>Ex. Shown groups of dots for an amount up to 10, recognize without counting the quantity it represents and identify the numeral.</p> <p>EE2.NBT.5.b. Using concrete examples, compose and decompose numbers up to 10 in more than one way.</p> <p>Ex. Given eight bears in a row, place a straw and make a group of four and a group of four to show it makes eight.</p> <p>Ex. Given two groups of bears totaling 10 bears, put them together to create one group.</p> <p>Ex. Divide (decompose) 10 counting bears into two groups (e.g., eight and two, five and five, four and six, etc.) in at least two ways; then show with blocks that the total of the two groups is 10 (composed).</p> <p>Ex. Shown groups of dots for an amount up to 10, recognize without counting the quantity it represents.</p> <p>EE2.NBT.5.b. Using concrete examples, compose and decompose numbers up to five in at least one way.</p> <p>Ex. Given four counters in a row, place a straw and make a group of two and a group of three and</p>

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<i>Use place value understanding and properties of operations to add and subtract</i>		AA Student Will:
		<p>show it makes five. Ex. Given a group of five counters that has been divided (decomposed) into two groups of four and one, show with blocks that the total of the two groups is five (composed). Ex. Shown groups of dots for an amount up to five, recognize without counting the quantity it represents and identify the numeral.</p> <p>EE2.NBT.5.b. Recognize that groups of objects can be put together or taken apart. Ex. Given a group of four counting bears on a circle mat, separate them into two groups. Ex. Given two separate groups of counters (one and three), put them together to make one group of four. Ex. Shown four objects and one taken away, counts the one taken away to find how many were taken.</p>
<p>2.NBT.6. Add up to four two-digit numbers using strategies based on place value and properties of operations.</p> <p>2.NBT.7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or</p>	<p>EE2.NBT.6-7. Use objects, representations, and numbers (0-20) to add and subtract.</p>	<p>EE2.NBT.6-7. Use objects, representations, and numbers beyond 20 to add and subtract. Ex. Given the lunch cards for the class and two absent students, subtract two to get the lunch count for the day. Ex. Using pictures of objects, tally marks, or number cards with numbers to 20, complete an addition or subtraction equation. Ex. Given 12 counting cubes, count eight more beginning from twelve (e.g., 12, 13, 14, 15, . . . 20).</p> <p>EE2.NBT.6-7. Use objects, representations, and numbers (0-20) to add and subtract. Ex. Add two sets of objects to sum up to 20. Ex. Given a set of objects up to 20, take away a given number and indicate how many are left. Ex. Use objects to add by counting (e.g., "I have three apples and I get 10 more. How many do I have?" Student counts out three objects and then counts 10 more to find the total.).</p> <p>EE2.NBT.6-7. Use objects, representations, and numbers (0-10) to add. Ex. Given a number path, move ahead two and indicate the new position. Ex. Given two milks for five students, determine that three more are needed for each student to have one. Ex. Given three counting cubes, determine how many more are needed to make six. Ex. Use objects to add by counting (e.g. "I have three apples and I get two more. How many do I</p>

Second Grade Mathematics: *Number and Operations in Base Ten*

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<i>Use place value understanding and properties of operations to add and subtract</i>		AA Student Will:
subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.		have?" Student counts out three objects and then counts two more to find the total.). EE2.NBT.6-7. Count objects 1-10. Ex. Given three counting cubes, count one, two, three. Ex. Count the number of marks on a tally board.
2.NBT.8. Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900. 2.NBT.9. Explain why addition and subtraction strategies work, using place value and the properties of operations. ⁶	EE2.NBT.8-9. N/A	

⁶ Explanations may be supported by drawings or objects.

Second Grade Mathematics: Measurement and Data

CCSS Grade-Level Clusters	Common Core Essential Elements	Range of Complexity Examples
Measure and estimate lengths in standard units	AA Student Will:	
<p>2.MD.1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.</p> <p>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.</p>	<p>EE2.MD.1. Measure the length of objects using non-standard units.</p>	<p>EE2.MD.1. Measure length of objects using standard tools, such as rulers, yardsticks, and meter sticks, by repeating the use of the measurement tool/unit. Ex. Given a row of three tile squares on the floor, measure the length of the tiles by repeating a ruler end to end. Ex. Given a hallway from the classroom to the bathroom across the hall, measure the distance with a yardstick by repeating the yardstick from end to end. Ex. Measure the top of the desk with a ruler by repeating the ruler from end to end.</p> <p>EE2.MD.1. Measure the length of objects using non-standard units. Ex. Measure the length of a given distance using a given non-standard measuring device. Ex. Count the tiles on the floor to see how many it is from the door of the classroom to the drinking fountain.</p> <p>EE2.MD.1. Begin to measure from an end point using a non-standard tool. Ex. Place the measurement tool (paperclip, block), on the left edge. Ex. Given an "All About Me" story and body outline, indicate that he or she needs to start at the feet or head and measure to the other end to measure height. Ex. Given three pictures with an X at the lower left, upper right, and middle, indicate that the picture with the X at the lower left illustrates the correct place to start measuring. Ex. Lay nine cubes end-to-end next to a book to see how long the book is.</p> <p>EE2.MD.1. Match objects of like length. Ex. Given three different objects - one shorter and two of the same similar length, match the two similar length objects. Ex. Given three pieces of paper of different length - two short, one long, match the two similar length objects.</p>
<p>2.MD.3. Estimate lengths using units of inches, feet, centimeters, and meters.</p> <p>2.MD.4. Measure to determine how much longer</p>	<p>EE2.MD.3-4. Order by length using non-standard units.</p>	<p>EE2.MD.3-4. Use non-standard units to measure length of objects (i.e., paperclips, blocks). Ex. Determine how many footsteps it takes to cross the classroom. Ex. Determine how many handprints it will take to measure the length (across) a desktop.</p> <p>EE2.MD.3-4. Order by length using non-standard units. Ex. Given three non-standard units of measurement, such as a paperclip, index card, and</p>

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<p>Measure and estimate lengths in standard units</p> <p>one object is than another, expressing the length difference in terms of a standard length unit.</p>		<p>AA Student Will:</p> <p>construction paper, order them by length, shortest to longest. Ex. Given a classroom of students, order them from shortest to tallest (brick walls help).</p> <p>EE2.MD.3-4. Compare two non-standard units of length and determine which is shorter and which is longer. Ex. Given two pieces of string of differing lengths, determine which is shorter. Ex. Given a paperclip and an index card, determine which is shorter.</p> <p>EE2.MD.3-4. Compare an item to a model that is shorter or longer. Ex. Compare a full-length pencil to a golf pencil, identify that the golf pencil is shorter. Ex. Compare a yardstick to a ruler, identify that the yardstick is longer.</p>

Second Grade Mathematics: Measurement and Data

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<p>2.MD.5. Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.</p>	<p>EE2.MD.5. Increase or decrease length by adding or subtracting unit(s).</p>	<p>AA Student Will:</p> <p>EE2.MD.5. Increase or decrease length by adding or subtracting multiple units. Ex. Given a paper chain, increase the length by adding two links. Ex. Given a chain of 10 pop-beads, decrease the length by removing four beads. Ex. Given a row of counting cubes, increase the length by adding three cubes.</p> <p>EE2.MD.5. Increase or decrease length by adding or subtracting unit(s). Ex. Given a string of three pop-beads, add one to make it longer (a length of four pop-beads). Ex. Given a group of three counting cubes, add one to make it longer - a group of four. Ex. Given a paper chain representing the number of days in the month, tear off a link at the end of each day to make it shorter (possibly countdown to an anticipated event).</p> <p>EE2.MD.5. Increase length by adding a single unit. Ex. Given a paper chain representing the first 20 days of school, add another link for one more day. Ex. Given counting cubes, increase the length by adding one more to the stack.</p> <p>EE2.MD.5. Compare two objects and determine which is longer. Ex. Given a piece of string 12 inches long and a piece of string two inches long, determine which is longer.</p>

Second Grade Mathematics: Measurement and Data

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Relate addition and subtraction to length		AA Student Will:
		Ex. Given a short strip of paper and a long strip of paper, determine which is longer.
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.	EE2.MD.6. Use a number line to add one more unit of length.	<p>EE2.MD.6. Use a number line to add more than one unit of length. Ex. Given a number line with 1-foot units marked, add up to five feet and tell the total. Ex. Given a number line with 1-foot units marked on the floor and a starting point, add feet to reach a specified point. Ex. Tell the total length when adding feet from a given point on the number line. Ex. Tell the distance between two numbers on the number line.</p> <p>EE2.MD.6. Use a number line to add one more unit of length. Ex. Given the number three on a number line showing length units marked, and asked to add one more, show the number four. Ex. Given the number two on a number path marked by foot units and asked to add one more, show/move to the number three feet. Ex. Given a number line and a starting point on the floor, add one more.</p> <p>EE2.MD.6. Count forward on a number line to 10 showing units of length. Ex. Count forward, taking steps from one foot to 10 feet with one-to-one correspondence with or without teacher modeling. Ex. Given a number path and a starting point, count forward to 10 on the number line. Ex. Given a number path and 10 cubes, place a cube on each number as it is counted.</p> <p>EE2.MD.6. Indicate one more number on a number line and track left to right. Ex. Indicate one more on a number line by tracking to the right. Ex. Given a number line start on the left and move to the right.</p>

Second Grade Mathematics: Measurement and Data

CCSS Grade-Level Clusters	Common Core Essential Elements	Range of Complexity Examples
Work with time and money		AA Student Will:
2.MD.7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and	EE2.MD.7. Indicate the digit that tells the hour on a digital	EE2.MD.7. Tell time to the hour on a digital and analog clock. Ex. When shown two digital clocks and asked to indicate the one that shows "5:00," indicate the correct clock.

Second Grade Mathematics: Measurement and Data

CCSS Grade-Level Clusters	Common Core Essential Elements	Range of Complexity Examples
Work with time and money	AA Student Will:	
p.m.	clock.	<p>Ex. When shown an analog and a digital clock and a time check sheet and prompt, indicate the new hour on the digital clock (e.g., 5:00, 12:00).</p> <p>EE2.MD.7. Indicate the digit that tells the hour on a digital clock. Ex. Given a digital clock, indicate the number(s) in the hour position. Ex. Given cards showing digital clocks - with one clock having the hour circled and one clock with the minutes circled, indicate the clock with the hour circled. Ex. Using a picture schedule, match the hour of one activity to the correct picture of a digital clock.</p> <p>EE2.MD.7. Indicate the relationship between a clock and their daily schedule. Ex. Given their schedules and two clocks with a specific activity highlighted, match the time on their schedule to the time on the digital clock. Ex. Select a clock showing noon when given two clocks, one set at 6:30 and one set at noon, when asked, "When do we go to lunch?"</p> <p>EE2.MD.7. Indicate that a clock is used to tell time. Ex. Given a clock and a shoe, and asked, "Which tells time?" indicate that the clock tells time. Ex. Given two kinds of digital clocks and a distracter, match the two clocks as time-telling tools.</p>
2.MD.8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?	EE2.MD.8. Recognize that money has value.	<p>EE2.MD.8. Recognize that money is used in exchange for goods. Ex. Given a classroom store, purchases goods with money. Ex. Given a school cafeteria, purchase goods with a predetermined amount of money.</p> <p>EE2.MD.8. Recognize that money has value. Ex. Given blocks and quarters and asked, "If you want to buy a juice, which would you use?", indicate quarters. Ex. Given a schoolbook fair and asked, "If you want to buy a book at the book fair, which would you need, a dollar or an apple?", indicate dollar.</p>

Second Grade Mathematics: *Measurement and Data*

CCSS Grade-Level Clusters	Common Core Essential Elements	Range of Complexity Examples
<i>Work with time and money</i>		AA Student Will:
		<p>EE2.MD.8. Sort money from other objects. Ex. Given three objects, select the coin. Ex. Given three objects, select the dollar.</p> <p>EE2.MD.8. Understand that goods (items) have value. Ex. Given a group of goods (items), select a preferred item. Ex. Given a reward box, makes a desired selection.</p>

Second Grade Mathematics: *Measurement and Data*

CCSS Grade-Level Clusters	Common Core Essential Elements	Range of Complexity Examples
<i>Represent and interpret data</i>		AA Student Will:
<p>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 making a line plot, where the horizontal scale is marked off in whole-number units.</p> <p>2.MD.10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-</p>	<p>EE2.MD.9-10. Create picture graphs from collected measurement data.</p>	<p>EE2.MD.9-10. Organize, represent, and interpret length/height data using concrete objects to create picture graphs. Ex. Make a decision based on the measurement data and information from graph. Ex. Compare data. Teacher draws height mark on wall at 3.5 feet. How many people are taller than the mark? How many people are shorter than the mark? Ex. Collect, graph, and interpret data about class hot and cold lunch preferences. Ex. When entering the classroom, place an icon in the appropriate bar on the graph (e.g., in/not in, buy lunch/bag lunch) and answer questions based on that graph.</p> <p>EE2.MD.9-10. Create picture graphs from collected measurement data. Ex. Place picture card on the graph in a row for one of two possible choices (e.g., likes peanut butter and jelly, likes macaroni and cheese). Ex. Given pictures of lunch choices, place selection on a graph with pictures from other students making the same selection to form a picture graph.</p> <p>EE2.MD.9-10. Create picture graphs from collected measurement data using model. Ex. Given a model, create a picture graph using colored disks or paper squares. Ex. Given a model, create a picture graph using different shapes sorted into groups.</p>

Second Grade Mathematics: *Measurement and Data*

CCSS Grade-Level Clusters	Common Core Essential Elements	Range of Complexity Examples
<i>Represent and interpret data</i>		AA Student Will:
apart, and compare problems using information presented in a bar graph.		EE2.MD.9-10. Contribute to data collection. Ex. Select a picture that represents personal choice from options presented during data collection. Ex. Sort items into two groups.

Second Grade Mathematics Standards: *Geometry*

CCSS Grade-Level Clusters	Common Core Essential Elements	Range of Complexity Examples
<i>Reason with shapes and their attributes</i>		AA Student Will:
2.G.1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. ⁷ Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	EE2.G.1. Describe attributes of two-dimensional shapes.	<p>EE2.G.1. Describe mathematical attributes of two- and three-dimensional shapes. Ex. Play a game with a partner where one student describes attributes of a shape from a shape card, and the other student must select from a set of four shape cards which one fits the description. Ex. After the teacher places two- and three-dimensional shapes into a bag, feel one of the shapes and describe it without looking. Ex. Describe the number of sides for basic shapes (e.g., three – triangle, four – square).</p> <p>EE2.G.1. Describe attributes of two-dimensional shapes. Ex. Given an array of colors and sizes, select attributes that describe the selected shape. Ex. Provided with a group of two-dimensional shapes, describe common attributes. Ex. Given a group of objects, sort them by any attribute; then identify what attribute was used to sort (i.e., size, shape, color). Ex. Play “I Spy” and find items in the environment with one common attribute (i.e., all circles, all red items, all things smaller than my nose).</p> <p>EE2.G.1. Sort by one attribute (shape). Ex. Pull out the all of the circles from a bowl of circles and squares. Ex. Put all the triangles into a bowl from a pile of triangles and rectangles. Ex. Stack dishes by shape after cleaning (bowls, cups, spoons, etc.). Ex. Put away blocks sorted by shape.</p>

⁷ Sizes are compared directly or visually, not compared by measuring.

Second Grade Mathematics Standards: *Geometry*

CCSS Grade-Level Clusters	Common Core Essential Elements	Range of Complexity Examples
<i>Reason with shapes and their attributes</i>		AA Student Will:
		<p>EE2.G.1. Explore shapes with different attributes. Ex. Color all the squares blue and all the circles red with teacher prompt (e.g., "Here is a circle; color it red."). Ex. Using sand/water table, locate the shapes hidden in various materials. Ex. Play a game called "Same or Different" where the teacher holds up two objects and ask students if the objects are exactly the same or different. Ex. Identify things that are similar (e.g., yellow, square, big, little, soft, hard).</p>
2.G.2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	EE2.G.2. N/A	
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 equal shares of identical wholes need not have the same shape.	EE2.G.3. N/A	

**COMMON CORE ESSENTIAL ELEMENTS
AND RANGE OF COMPLEXITY
*THIRD GRADE***