

Alaska-DLM Essential Elements and Instructional Examples for Mathematics

Second Grade

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DYNAMIC
LEARNING MAPS

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ALASKA-DLM ESSENTIAL ELEMENTS AND INSTRUCTIONAL EXAMPLES FOR SECOND GRADE

Second Grade Mathematics Standards: Operations and Algebraic Thinking

AK Grade-Level Clusters	AK-DLM Essential Elements	Instructional Examples
Represent and solve problems involving addition and subtraction.		

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<p>Work with equal groups of objects to gain foundations for multiplication.</p> <p>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.</p>	<p>EE2.OA.3. Equally distribute even numbers of objects between two groups.</p>	<p>Students will:</p> <p>EE2.OA.3. Determine that a quantity of objects is even or odd by separating them into two groups.</p> <p>Ex. Given 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.</p> <p>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>Students will:</p> <p>EE2.OA.3. Equally distribute even numbers of objects between two groups.</p> <p>Ex. Distribute eight objects equally between two boxes and count the total</p>

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

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		<p>number of objects in each box. Ex. Divide 10 crayons into two equal collection cans.</p> <p>Students will: 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>Students will: 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 cubes, two pyramids). Ex. Group objects into like sets.</p>
<p>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.</p>	<p>EE2.OA.4. Use addition to find the total number of objects arranged within equal groups up to a total of 10.</p>	<p>Students will: 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>Students will: 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</p>

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		<p>groups and indicate how many objects there are in all.</p> <p>Students will: 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>Students will: 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>

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Second Grade Mathematics: Number and Operations in Base Ten

AK Grade-Level Clusters	AK-DLM Essential Elements	Instructional Examples
<p>Understand place value.</p> <p>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: <i>f</i> 100 can be thought of as a bundle of ten tens — called a “hundred.” <i>f</i> 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>	<p>EE2.NBT.1. Represent numbers through 30 with sets of tens and ones with objects in columns or arrays.</p>	<p>Students will:</p> <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 column and the “0” goes in the ones place.</p> <p>Students will:</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>Students will:</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>Students will:</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</p>	<p>EE2.NBT.2.a. Count from 1</p>	<p>Students will:</p>

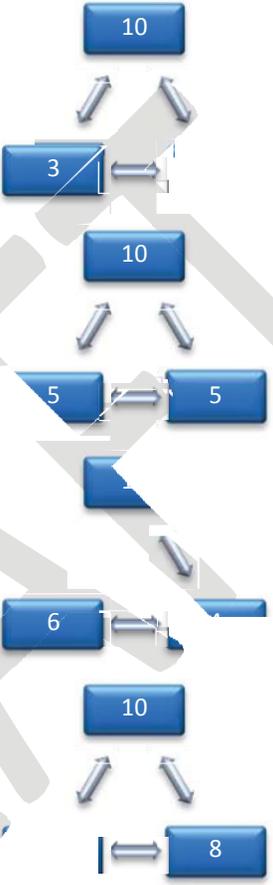
AK Grade-Level Clusters	AK-DLM Essential Elements	Instructional Examples
1000; skip-count by 5s, 10s, and 100s.	to 30 (count with meaning; cardinality).	<p>EE2.NBT.2.a. Count beyond 30 (count with meaning; cardinality). Ex. Count objects beyond 30. Ex. Count tally marks beyond 30. Ex. During calendar 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>Students will: 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>Students will: 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>Students will: EE2.NBT.2.a. Repeat numbers 1 to 30. Ex. During calendar time, repeat the date. Ex. When swinging on the playground, imitate the teacher calling out the swings back and forth. Ex. Count with the teacher from 1 to 30.</p>
	EE2.NBT.2.b. Name the next number in a sequence between 1 and 10.	<p>Students will: 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). Ex. During calendar time, start on the day's date and count forward up to 10. Ex. Using a number path, start on a given number and count forward up to 10. Ex. Given a number, count forward to 10. 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>

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		<p>Students will: EE2.NBT.2.b. Name the next number in a sequence between 1 and 10. Ex. Given a sequence of numbers, responds with the next number in the sequence (e.g., 5, 6, 7, name 8). Ex. While playing the game, "Say the next number," correctly identify the next number between 1 and 10. Ex. When counting off, say the next number in correct sequence when called on.</p> <p>Students will: EE2.NBT.2.b. Indicate the higher number in a progression of numbers (with or without gaps). Ex. Given a number sequence (e.g., given 1, 2, 3, 4, respond with any higher number). Ex. Given a number, pick a higher number.</p> <p>Students will: EE2.NBT.2.b. Communicate a number. Ex. When numbering off into groups, respond with any number when it's his or her turn. 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>Students will: EE2.NBT.3. Express number symbols beyond 30. Ex. Asked to produce a number, correctly produce the number. Ex. Given a calendar and asked to identify a date, correctly identify the date. Ex. Given a numbers chart and asked to identify a number, correctly identify the number.</p> <p>Students will: EE2.NBT.3. Identify number symbols 1 to 30. Ex. Play a game that requires number symbol recognition from 1 to 30</p>

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		<p>(e.g., BINGO). Ex. While playing the game “I Spy” with numbers around the room, identify the number called. Ex. Identify number symbols when arranged on the desk in front of them.</p> <p>Students will: EE2.NBT.3. Identify number symbols 1-10. Ex. Given number cards from 1-10, win the card by identifying the number on the card. Ex. Given a number path from 1-10, identify the prompted number. Ex. Given numbered paper fish on fishing poles, identify the number on the fish. Ex. Given number symbols written on the board, identify number symbols from 1 to 10. Ex. Use numbers 1 to 10 to represent quantities.</p> <p>Students will: EE2.NBT.3.a. Differentiate between numbers and letters. 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>Students will: EE2.NBT.4. Compare sets of objects and numbers using appropriate vocabulary as equal or more or less when two or fewer units apart. 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. Ex. When given two reward strips with stickers two or less units apart, determine which strip has more reward stickers on it. Ex. Given two groups of three red counters, determine that they are equal.</p> <p>Students will: EE2.NBT.4. Compare sets of objects and numbers using appropriate vocabulary (more, less, equal). Ex. Given a four and a six, determine that six is more than four.</p>

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		<p>Ex. Given two groups of three red counters, determine that they are equal.</p> <p>Students will: EE2.NBT.4. Determine equality of sets of objects using appropriate vocabulary (equal). Ex. Given sets of two bears and two apples, be able to indicate that the sets are equal. Ex. Given two sets, two of which are equal, be able to indicate the sets that are equal. Ex. John has three bears and Susie has two bears. John has one more bear than Susie.</p> <p>Students will: EE2.NBT.4. Match groups of objects. Ex. Given two sets of objects match like groups. Ex. Given a set of two objects, assemble 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.</p>
<p>Use place value understanding and properties of operations to add and subtract.</p> <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>Students will: EE2.NBT.5.a. Identify the meaning of the “+” sign (i.e., combine, plus, add), 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>Students will: 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</p>

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		<p>“+” sign.</p> <p>Students will: 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>Students will: 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.”). Ex. When given two cards with plus/equal signs and one distracter, match the appropriate sign.</p>
	<p>EE2.NBT.5.b. Using concrete examples, compose and decompose numbers up to 10 in more than one way.</p>	<p>Students will: EE2.NBT.5.b. Using numbers or representations, compose and decompose numbers up to 10 in more than one way. 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. Ex. When shown the number five, indicate that it is made up of one and four, or two and three. Ex. Shown groups of dots, recognize the quantity automatically. 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>

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		 <p data-bbox="926 1154 1808 1222">Ex. Shown groups of dots for an amount up to 10, recognize without counting the quantity it represents and identify the numeral.</p> <p data-bbox="926 1271 1108 1300">Students will:</p> <p data-bbox="926 1308 1892 1377">EE2.NBT.5.b. Using concrete examples, compose and decompose numbers up to 10 in more than one way.</p> <p data-bbox="926 1385 1881 1453">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 data-bbox="926 1461 1822 1495">Ex. Given two groups of bears totaling 10 bears, put them together to</p>

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		<p>create one group. 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). Ex. Shown groups of dots for an amount up to 10, recognize without counting the quantity it represents.</p> <p>Students will: EE2.NBT.5.b. Using concrete examples, compose and decompose numbers up to five in at least one way. Ex. Given four counters in a row, place a straw and make a group of two and a group of three and 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>Students will: 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>EE2.NBT.6-7. Use objects, representations, and numbers (0-20) to add and subtract.</p>	<p>Students will: 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</p>

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<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 subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.</p>		<p>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>Students will: 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>Students will: 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 have?” Student counts out three objects and then counts two more to find the total.).</p> <p>Students will: 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.</p>

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Second Grade Mathematics: Measurement and Data

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<p>Measure and estimate lengths in standard units.</p> <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>EE2.MD.1. Measure the length of objects using non-standard units.</p>	<p>Students will:</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.</p> <p>Ex. Given a row of three tile squares on the floor, measure the length of the tiles by repeating a ruler end to end.</p> <p>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.</p> <p>Ex. Measure the top of the desk with a ruler by repeating the ruler from end to end.</p> <p>Students will:</p> <p>EE2.MD.1. Measure the length of objects using non-standard units.</p> <p>Ex. Measure the length of a given distance using a given non-standard measuring device.</p> <p>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>Students will:</p> <p>EE2.MD.1. Begin to measure from an end point using a non-standard tool.</p> <p>Ex. Place the measurement tool (paperclip, block), on the left edge.</p> <p>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.</p> <p>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.</p> <p>Ex. Lay nine cubes end-to-end next to a book to see how long the book is.</p> <p>Students will:</p>

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		<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 one object is than another, expressing the length difference in terms of a standard length unit.</p>	<p>EE2.MD.3-4. Order by length using non-standard units.</p>	<p>Students will: EE2.MD.3-4. Use non-standard units to measure length of objects (e.g., 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>Students will: 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 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>Students will: 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>Students will: 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>

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<p>Relate addition and subtraction to length.</p> <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>Students will:</p> <p>EE2.MD.5. Increase or decrease length by adding or subtracting multiple units.</p> <p>Ex. Given a paper chain, increase the length by adding two links.</p> <p>Ex. Given a chain of 10 pop-beads, decrease the length by removing four beads.</p> <p>Ex. Given a row of counting cubes, increase the length by adding three cubes.</p> <p>Students will:</p> <p>EE2.MD.5. Increase or decrease length by adding or subtracting unit(s).</p> <p>Ex. Given a string of three pop-beads, add one to make it longer (a length of four pop-beads).</p> <p>Ex. Given a group of three counting cubes, add one to make it longer (a group of four).</p> <p>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>Students will:</p> <p>EE2.MD.5. Increase length by adding a single unit.</p> <p>Ex. Given a paper chain representing the first 20 days of school, add another link for one more day.</p> <p>Ex. Given counting cubes, increase the length by adding one more to the stack.</p> <p>Students will:</p> <p>EE2.MD.5. Compare two objects and determine which is longer.</p> <p>Ex. Given a piece of string 12 inches long and a piece of string two inches long, determine which is longer.</p> <p>Ex. Given a short strip of paper and a long strip of paper, determine which is longer.</p>
<p>2.MD.6. Represent whole</p>	<p>EE2.MD.6. Use a number</p>	<p>Students will:</p>

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<p>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.</p>	<p>line to add one more unit of length.</p>	<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>Students will: 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>Students will: 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>Students will: 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>
<p>Work with time and money.</p>	<p>EE2.MD.7. Identify on a digital clock the hour that</p>	<p>Students will: EE2.MD.7. Tell time to the hour on a digital and analog clock.</p>

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<p>2.MD.7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.</p>	<p>matches a routine activity.</p>	<p>Ex. When shown two digital clocks and asked to indicate the one that shows “5:00,” indicate the correct clock.</p> <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>Students will:</p> <p>EE2.MD.7. Indicate the digit that tells the hour on a digital clock.</p> <p>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.</p> <p>Ex. Using a picture schedule, match the hour of one activity to the correct picture of a digital clock.</p> <p>Students will:</p> <p>EE2.MD.7. Indicate the relationship between a clock and their daily schedule.</p> <p>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.</p> <p>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>Students will:</p> <p>EE2.MD.7. Indicate that a clock is used to tell time.</p> <p>Ex. Given a clock and a shoe, and asked, “Which tells time?” indicate that the clock tells time.</p> <p>Ex. Given two kinds of digital clocks and a distracter, match the two clocks as time-telling tools.</p>
<p>2.MD.8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using</p>	<p>EE2.MD.8. Recognize that money has value.</p>	<p>Students will:</p> <p>EE2.MD.8. Recognize that money is used in exchange for goods.</p> <p>Ex. Given a classroom store, purchases goods with money.</p> <p>Ex. Given a school cafeteria, purchase goods with a predetermined</p>

AK Grade-Level Clusters	AK-DLM Essential Elements	Instructional Examples
<p>\$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?</p>		<p>amount of money.</p> <p>Students will: 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 school book fair and asked, “If you want to buy a book at the book fair, which would you need, a dollar or an apple?”, indicate the dollar.</p> <p>Students will: EE2.MD.8. Sort money from other objects. Ex. Given three objects, select the coin. Ex. Given three objects, select the dollar.</p> <p>Students will: 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>
<p>Represent and interpret data.</p> <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</p>	<p>EE2.MD.9-10. Create picture graphs from collected measurement data.</p>	<p>Students will: 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>

AK Grade-Level Clusters	AK-DLM Essential Elements	Instructional Examples
<p>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-apart, and compare problems using information presented in a bar graph.</p>		<p>Students will: 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>Students will: 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> <p>Students will: 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.</p>

Second Grade Mathematics Standards: Geometry

AK Grade-Level Clusters	AK-DLM Essential Elements	Instructional Examples
<p>Reason with shapes and their attributes.</p> <p>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.</p>	<p>EE2.G.1. Describe attributes of two-dimensional shapes.</p>	<p>Students will:</p> <p>EE2.G.1. Describe mathematical attributes of two- and three-dimensional shapes.</p> <p>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.</p> <p>Ex. After the teacher places two- and three-dimensional shapes into a bag, feel one of the shapes and describe it without looking.</p> <p>Ex. Describe the number of sides for basic shapes (e.g., three – triangle, four – square).</p> <p>Students will:</p> <p>EE2.G.1. Describe attributes of two-dimensional shapes.</p> <p>Ex. Given an array of colors and sizes, select attributes that describe the selected shape.</p> <p>Ex. Provided with a group of two-dimensional shapes, describe common attributes.</p> <p>Ex. Given a group of objects, sort them by any attribute, then identify what attribute was used to sort (i.e., size, shape, color).</p> <p>Ex. Play “I Spy” and find items in the environment with one common attribute (e.g., all circles, all red items, all things smaller than my nose).</p> <p>Students will:</p> <p>EE2.G.1. Sort by one attribute (shape).</p> <p>Ex. Pull out the all of the circles from a bowl of circles and squares.</p> <p>Ex. Put all the triangles into a bowl from a pile of triangles and rectangles.</p> <p>Ex. Stack dishes by shape after cleaning (bowls, cups, spoons, etc.).</p> <p>Ex. Put away blocks sorted by shape.</p>

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

AK Grade-Level Clusters	AK-DLM Essential Elements	Instructional Examples
		<p>Students will:</p> <p>EE2.G.1. Explore shapes with different attributes.</p> <p>Ex. Color all the squares blue and all the circles red with teacher prompt (e.g., “Here is a circle; color it red.”).</p> <p>Ex. Using sand/water table, locate the shapes hidden in various materials.</p> <p>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.</p> <p>Ex. Identify things that are similar (e.g., yellow, square, big, little, soft, hard).</p>
<p>2.G.2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.</p>	<p>EE2.G.2. N/A</p>	
<p>2.G.3. Partition circles and rectangles into two, three, or four equal shares; describe the shares using the words <i>halves</i>, <i>thirds</i>, <i>half of</i>, <i>a third of</i>, 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.</p>	<p>EE2.G.3. N/A</p>	