NSCAS NEBRASKA STUDENT-CENTERED ASSESSMENT SYSTEM

Summative Assessment
Mathematics Grade 2 Range Achievement Level Descriptors

What are Range Achievement Level Descriptors?

Range Achievement Level Descriptors (ALDs) demonstrate how skills described in the Nebraska College and Career Ready Standards for Mathematics likely change and become more sophisticated as ability and performance increases. The ALDs also describe the evidence needed to help infer where a student is along the range. This range is defined by Nebraska using three levels:

- Developing – not yet demonstrating proficiency
- On Track – demonstrating proficiency
- Advanced– demonstrating advanced proficiency

The ALDs help show the within-standard reasoning complexity that increases in sophistication as the achievement levels increase. Such skill advancement is often related to increases in content difficulty, increases in reasoning complexity, and a reduction in the supports required for students to demonstrate what they know within a task or item.

The Range ALDs provide a way to communicate a progression that is visible and usable to all stakeholders, while also providing a foundation for a robust bank of assessment items that meets the needs of all Nebraska students.

How were the Nebraska's Mathematics Range ALDs updated for the new standards?

Draft Range ALDs for the new standards were created and reviewed by panels comprised of Nebraska educators during Spring of 2023. The updated ALDs were shared with NDE and their feedback was applied.

How will Nebraska's ELA Range ALDs change in relation to the new standards?

The updated ALDs were revised to reflect the new standards. The updated ALDs will be taken to the 2023 Item Writing Workshop where they will be used to help facilitate item writing. Feedback will be recorded at the upcoming Item Writing Workshop from Nebraska educators based on their use of the ALDs for writing items and at the upcoming standard setting from panelists. This feedback will then be used to update the ALDs. The updated ALDs will be shared with NDE to obtain their final recommendations.

NSCAS Mathematics
Grade 2 Range ALDs

Indicator	Developing learners do not yet demonstrate proficiency in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska College and Career Ready Standards. A developing learner…	On Track learners demonstrate proficiency in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska College and Career Ready Standards. An on-track learner…	Advanced Benchmark learners demonstrate advanced proficiency in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska Advanced Standards. An advanced learner…
NUMBER: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.			
2.N.1 Subitizing: Students will quantify briefly shown collections and verbally label the arrangements without counting.			
2.N.1.a Without counting, recognize and verbally label structured arrangements for briefly shown collections using groups, multiplicative thinking, and place value (e.g.," I saw 48." "How did you know?" "I saw 4 groups of 10 and 2 groups of 4 is 8...4 tens and 8 ones...48").	Assessed at the local level		
2.N.2 Counting: Students will understand the relationship between numbers and quantities to extend the counting sequence.			
2.N.2.a Count within 1,000, including skip counting by 5s, 10s, and 100s starting at a variety of multiples of 5, 10, or 100.	Extends counting within 120 - 1,000 by ones to the next number or set of numbers (e.g., Which number is next when counting by ones? 148, 149, 150, ____, ____). DOK: 1 Determines one or more missing number in counting sequences within 120 - 1,000 when counting by ones (e.g., Which numbers are missing when counting by ones? (332, 333, ____, 335, ____, 337). DOK: 1 Determines the next set of numbers when counting within 120 - 1,000 by ones or tens given one starting number (e.g., Starting with 550, what are the next three numbers when counting by tens?). DOK: 1 Extends counting within 1,000 by fives, tens, or hundreds to the next multiple of five or hundred respectively (e.g., Which number is next when counting by fives? 125, 130, 135, ____). DOK: 1 Refer to 1.N.2.a for counting by ones or tens to 120. Max DOK: 1	Extends counting within 1,000 by fives, ten, or hundreds to the next set of numbers (e.g., Which numbers are next when counting by hundreds? (200, 300, ____, ____). Determines the missing number in a counting sequence within 1,000 when counting by fives, tens, or hundreds (e.g., Which number is missing when counting by fives? (225, 230, 235, ____, 245). DOK: 1 Identifies the next set of numbers when counting within 1,000 by fives, tens, or hundreds given one starting number (e.g., Which list of numbers comes after 700 when counting by hundreds? with the correct answer being the option showing 800, 900, 1,000). DOK: 1 Refer to 1.N.2.a for counting by tens to 120. Max DOK: 1	Determines more than one missing number in a counting sequence within 1,000 when counting by fives, tens, or hundreds (e.g., Which numbers are missing when counting by tens? (70, 80, ____, 100, ____, 120). DOK: 1 Writes the next set of numbers when counting within 1,000 by fives, tens, or hundreds given one starting number. DOK: 2 Refer to 1.N.2.a for counting by tens to 120. Max DOK: 2
2.N.3 Base Ten: Students will represent and compare three-digit numbers to apply concepts of place value.			

2.N.3.a Read and write numbers within the range of 0 to 1,000 using standard, word, and expanded forms.	Determines the word form for a whole number from 1-120 given the standard form (numeral) and vice versa. DOK: 1 Determines the standard form for a whole number from 1-120 given the expanded form and vice versa. May or may not use "expanded form." Does not reference hundred, tens, or ones. DOK: 1 Refer to 1.N.2.c numbers up to 120 for numerals (standard form) to represent number of objects. Refer to 1.N.3.a regarding expanded form of two-digit numbers referring to tens and ones and for moving between standard form and number of tens and ones. Refer to 2.N.3.b for moving between number of hundreds/tens/ones and standard form up to 1,000 or number of tens and ones for 100. Max DOK: 1	Determines the word form for a whole number from 121 to 1,000 given the number in standard form and vice versa. DOK: 1 Determines the standard form for a whole number from 121 to 1,000 given the expanded form and vice versa. May or may not use "expanded form." DOK: 1 Determines the expanded form for a whole number from 1 to 100. given the word form of the number and vice versa. May or may not use "expanded form." DOK: 1 Determines the value of the missing number for a whole number from 101 up to 1,000 given the incomplete expanded form of the number (e.g., Determines the value of the missing number in 500 + ? + 4 = 584). DOK: 2 Max DOK: 2	Determines the expanded form for a whole number from 101 to 1,000 given the word form of the number and vice versa. May or may not use "expanded form." DOK: 1 Analyzes representations of whole numbers up to 1,000 (e.g., explain whether 400 + 1 represents 410). (See MA 2.1.1.c for referring to 4 hundreds and 1 one vs 1 ten.) DOK: 3 Max DOK: 3
2.N.3.b Understand 100 as a bundle, collection, or (more abstractly) composition of ten tens and that the three digits of a three-digit number represent a composition of some hundreds, some tens, and some ones.	Determines the standard form for a whole number from 101 to 999 given the number as the number of ones, tens, hundreds, and/or thousands. DOK: 1 Determines the place value of a digit in whole numbers from 101 to 999. DOK: 1 1.N.3.a for numbers 1 - 100.	Determines how many ones, tens, hundreds, and/or thousands are represented by a given number from 101 to 999 (e.g. How many tens are represented in the tens place for 387?). DOK: 1 Determines the number of tens and ones in 100 when given a visual representation using base-ten blocks or other objects grouped in groups of tens. DOK: 1 Max DOK: 1	Determines multiple representations of how many ones, tens, hundreds, and/or thousands are represented by a given number. (e.g., 3 hundreds and 8 tens is also 38 tens in 387). DOK: 1 Determines the number of tens and ones in 100 without a visual representation. DOK: 1 Max DOK: 1
2.N.3.c Compare two three-digit numbers by using symbols <, >, = and justify the comparison based on the value of the hundreds, tens, and ones.	Represents comparisons between two whole numbers when one value is less than 100 and one value is between 100 and 999 using symbols. DOK: 1 Determines the least or greatest number given two or more numbers between 100 and 999. DOK: 1 (Refer to 1.N.3.b for only two-digit numbers.) Max DOK: 1	Represents comparisons of two whole numbers, both being between 100 and 999 using symbols. DOK: 1 Determines the number that is greater than a given number and less than another given number, both being between 100 and 999. (e.g., finds the number that is less than 985 and greater than 763.) DOK: 1 Analyzes and/or justifies comparisons between two numbers when one value is less than 100 and one value is between 100 and 999. (e.g., explain whether a given or generated comparison is accurate). DOK: 3 Max DOK: 3	Orders three or more whole numbers with at least one value being between 100 and 999 (may or may not use symbols). DOK: 2 Analyzes and/or justifies comparisons between two numbers when both are between 100 and 999 (e.g., explain whether a given or generated comparison is accurate). DOK: 3 Max DOK: 3
2.N.4 Number and Operations: Students will compute using addition and subtraction.			
2.N.4.a Fluently add and subtract within 20.	Assessed at the local level		
2.N.4.b Add and subtract within 100 using strategies based on place value including properties of operations, the relationship between addition and subtraction, and algorithms.	Subtracts within 20 - 100 with supports when both values are not multiples of 10. DOK: 1 Refer to 1.N.4.a for addition and subtraction with 20. Refer to 1.N.4.c-d for subtraction within 100 using multiples of 10. Refer to 1.N.4.e for addition within 20 - 100 with/without supports, including two-digit numbers. Refer to 2.N.4.d for adding two-digit numbers with/without supports. Refer to 2.G.4.a for adding/subtracting within 100 on a number line. Max DOK: 1	Subtracts within 20 - 100 without supports when both values are not multiples of 10. DOK: 1 Both adds and subtracts within 100 without supports where at least one operation is within 20 - 100 (i.e. both operations). DOK: 2 Performs multi-step addition or subtraction without supports within 20 - 100 (one operation but more than one step). For addition, at least one value must be a single-digit whole number. See 2.N.4.d for adding only two-digit numbers. For subtraction, at least one value must not be a multiple of 10. DOK: 2 Max DOK: 2	Analyzes addition or subtraction within 100, with or without regrouping (e.g., determines whether the given process is accurate). DOK: 3 Max DOK: 3
2.N.4.c Mentally add or subtract 10 or 100 to or from a given number 100 to 900.	Assessed at the local level		

2.N.4.d Add up to three two-digit numbers using strategies based on place value and understanding of properties.	Adds within 20 - 100 by adding two, two-digit numbers, neither of which are multiples of ten, without supports. DOK: 1 Adds three, two-digit numbers within 100, with one or two numbers being a multiple of ten. DOK: 1 Refer to 1.N.4.e for addition within 20 - 100 with two-digit numbers with supports. Refer to 2.G.4.a for adding/subtracting within 100 using number lines. Refer to 2.N.4.e for adding and subtracting within 1,000 with supports. Max DOK: 1	Adds three, two-digit numbers within 100 without supports, with no numbers being a multiple of ten. DOK: 1 Max DOK: 1	Analyzes addition and subtraction within 100 of two or three two-digit numbers (e.g. determines whether the given process is accurate?). DOK: 3 Max DOK: 3
2.N.4.e Add and subtract within 1,000 using concrete models, drawings, and strategies that reflect an understanding of place value and the properties of operations.	Adds within 100 - 1000 without regrouping, with supports. DOK: 1 Refer to 1.N.4.e for addition within 20 - 100. Refer to 2.N.4.d for adding two-digit numbers within 100. Refer to 2.N.4.b for adding and subtracting within 100. Refer to 2.G.4.a for adding/subtracting within 100 using number lines. Refer to 3.A.1.a for adding/subtracting 4-digit numbers without supports. Max DOK: 1	Adds within 100 - 1000 with regrouping and supports. DOK: 1 Subtracts within 100 - 1000 without regrouping, with supports. DOK: 1 Max DOK: 1	Subtracts within 100 - 1000 with regrouping, with supports. DOK: 1 Max DOK: 1
2.N.5 Number and Algebraic Relationships: Students will create and solve problems involving addition and subtraction and work with equal groups of objects to gain foundations for multiplication.			
2.N.5.a Solve authentic problems involving addition and subtraction within 100 in situations of addition and subtraction, including adding to, subtracting from, joining and separating, and comparing situations with unknowns in all positions using objects, models, drawings, verbal explanations, expressions, and equations.	None at this level. Refer to 1.N.5.f for authentic problems within 20. Refer to 2.G.2-5 for authentic problems involving money and measurement lengths.	Solves one-step authentic addition or subtraction problems within 20 - 100. DOK: 2 Solves two-step authentic addition problems within 100. At least on operation must be within 20 - 100. DOK: 2 Max DOK: 2	Solves two-step authentic problems that require both addition and subtraction. At least one operation should be within 20 - 100. DOK: 2 Solves three-step authentic addition and/or subtraction problems within 100. At least one operation should be within 20 - 100. DOK: 2 Max DOK: 2
2.N.5.b Create authentic problems to represent one-step addition and subtraction within 100 with unknowns in all positions.	Assessed at the local level		
2.N.5.c Use repeated addition to find the total number of objects arranged in an array no larger than five rows and five columns and write an equation to express the total.	Identifies an addition equation to represent the total objects in a corresponding array and vice versa (e.g. For a group that has 3 rows and 4 columns identifies 4 + 4 + 4 = 12). DOK: 1 Determines the total number of objects in a given array. DOK: 1 Arrays can have at most 5 rows and at most 5 columns (5 x 5). Objects can be authentic objects but the overall problem should not be in context. Refer to 2.N.5.d for using groups of objects in reference to even/odd numbers. Max DOK: 1	Writes an addition equation to represent the total number of objects in a corresponding array and vice vera. DOK: 2 Creates an array to represent a given addition equation. DOK: 2 Arrays can have at most 5 rows and at most 5 columns (5 x 5). Objects can be authentic objects but the overall problem should not be in context. Max DOK: 2	Creates an array to represent a given total number of objects when only the total is given without an addition expression. DOK: 2 Arrays can have at most 5 rows and at most 5 columns (5 x 5). Objects can be authentic objects but the overall problem should not be in context. Max DOK: 2

2.N.5.d Identify a group of objects from 0-20 as even or odd by counting by 2's or by showing even numbers as a sum of two equal parts.	Determines whether a group of up to 20 objects contains an even or odd number of objects given a diagram with the objects separated into: -Two equal groups of objects -Groups of two objects -Two equal groups of objects and one object left outside of the groups -Groups of two objects and one object left outside of the groups DOK: 1 Groups do not have to be arranged in rows and columns. If arranged in rows and columns, the group should have at most 5 rows or at most 5 columns (5 x 4 or 4 x 5). Refer to 2.N.5.c for determining addition equations to represent total number of objects in arrays (groups) of up to 5 rows and 5 columns and determining the total number of objects in the array. Max DOK: 1	Determines whether a group of up to 20 objects contains an even or odd number of objects given a diagram of objects not divided into groups. DOK: 1 Determines the addition equation to represent a number of up to 20 objects as an even or odd number given a diagram with the objects separated. Ex: Given 16 triangles divided into 2 groups of 8, represents it as 8 + 8 or 2 + 2 + 2 + 2 to show that it is an even number. DOK: 1 Groups do not have to be arranged in rows and columns. If arranged in rows and columns, the group should have at most 5 rows or at most 5 columns (5 x 4 or 4 x 5). Max DOK: 1	Determines two addition equations to represent a number of up to 20 objects as an even or odd number given a diagram without the objects divided into groups. Ex: Given 17 triangles, uses both 8 + 8 + 1 and 2 + 2 + 2 + 2 + 1 to demonstrate that the group contains an odd number of triangles. DOK: 1 Determines whether a given number of up to 20 objects is even or odd without a diagram. DOK: 1 Groups do not have to be arranged in rows and columns. If arranged in rows and columns, the group should have at most 5 rows or at most 5 columns (5 x 4 or 4 x 5). Max DOK: 1
ALGEBRA: Students will solve problems and reason with algebra using multiple representations, make connections within math and across disciplines, and communicate their ideas.			
SEE NUMBER AND ALGEBRAIC RELATIONSHIPS IN NUMBER (2.N.5)			
GEOMETRY: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.			
2.G.1 Shapes and Their Attributes: Students will recognize and represent the attributes of two-dimensional shapes and three-dimensional solids.			
2.G.1.a Recognize and describe all faces of three-dimensional shapes as two-dimensional shapes. Identify and count attributes of solid shapes including the edges, faces, and vertices.	Identifies that the faces of a three-dimensional shape are two-dimensional shapes. DOK: 1 See 5.G.1.a for rectangular prisms. Max DOK: 1	Determines the shape of all faces on a three-dimensional shape. DOK: 1 Identifies the number of edges, faces, or vertices of a three-dimensional shape. DOK: 1 Max DOK: 1	Determines the three-dimensional shapes that contain given two-dimensional shape or shapes. DOK: 1 Identifies the three-dimensional shape that has a given number of faces, vertices and edges. DOK: 1 Max DOK: 1
2.G.1.b Recognize and draw two-dimensional shapes having a specific number of sides, angles, and vertices including triangles, quadrilaterals, pentagons, and hexagons.	Determines the drawing of a two-dimensional shape given the number of sides and/or angles. DOK: 1 Max DOK: 1	Determines the name of a two-dimensional shape given the number of sides and/or angles. Names/shapes are limited to triangle, quadrilateral, pentagon, and hexagon. DOK: 1 Max DOK: 1	None at this level.
2.G.1.c Partition a rectangle into rows and columns of equal-sized squares and count to find the total.	Determines the number of squares given a rectangle divided into equal-sized squares. DOK: 1 Determines a rectangle divided into equal-sized squares as compared to rectangles divided into un-equal sized squares or rectangles (e.g., when all figures are rectangles, Which figure is divided into equal-sized squares?). DOK: 1 Refer to 2.G.1.d for referring to equal-sized shapes using fraction language. Refer to 2.G.1.e for equal parts that are not the same shape. Max DOK: 1	Determines the rectangle divided into a given number of equal-sized squares (e.g., when all figures are rectangles - Which figure is divided into 6 equal-sized squares?) . DOK: 1 Max DOK: 1	None at this level.

2.G.1.d Divide circles and rectangles into two, three, or four equal parts and describe the parts using the language of halves, thirds, fourths, half of, a third of, and a fourth of.	None at this level. Refer to 1.G.1.d for halves and fourths. Refer to 2.G.1.e for equal parts that are not the same shape.	Determines the rectangle(s) and/or circle(s) divided into thirds when the parts are the same shape. May include references to halves and fourths/quarters. DOK: 1 Determines which part/shape represents a third of a given rectangle or circle when the parts are the same shape. May include comparisons to a half or and a fourth/quarter of. DOK: 1 Max DOK: 1	Describes a rectangle or circle divided into 3 equal parts as divided into thirds or describes each part as representing a third of the shape. The parts are the same shape. DOK: 2 Max DOK: 2
2.G.1.e Recognize that equal shares of identical wholes need not have the same shape.	Determines the rectangle(s) divided into halves or fourths/quarters when the equal parts are different shapes. DOK: 1 Determines which parts/shapes represents a half or a fourth/quarter of a given rectangle when the equal parts are different shapes. DOK: 1 Refer to 2.G.1.c-d for dividing into halves, fourths, quarters, and thirds where the parts are the same shape. Max DOK: 1	Determines the circle(s) divided into halves or fourths/quarters when the equal parts are different shapes. DOK: 1 Determines which parts/shapes represents a half or a fourth/quarter of a given circle when the equal parts are different shapes. DOK: 1 Max DOK: 1	Determines the rectangle(s) or circle(s) divided into thirds when the equal parts are different shapes. DOK: 1 Determines which parts/shapes represents a third of a given rectangle or circle when the equal parts are different shapes. DOK: 1 Max DOK: 1
2.G.2 Describe Measurable Attributes: Students will measure, estimate, and compare lengths to build meaning of the measurement process.			
2.G.2.a Measure the length of an object using two different length units and describe how the measurements relate to the size of the specific unit.	None at this level. Refer to 2.G.3.b for measuring objects in inches, feet, centimeters, or meters. Refer to 2.G.2.b for comparing the difference in length of more than 1 object. (2 objects using one system).	Makes comparisons of the number of units of length when using two units (e.g., the number of paper clips is fewer than the number of erasers needed to measure the pencil). DOK: 1 Measurement units can be objects or units of measure (inches, feet, centimeters, and meters). Rulers may or may not be placed in the diagram. Items may include context. Max DOK: 1	Makes comparisons of the number of units of length when using more than two units (e.g., uses three different objects to measure the length and then makes a comparison). DOK: 1 Explains the difference in measurements in relation to the units used (e.g., The reason the pencil uses more centimeters than inches to determine the length is that an inch is longer than a centimeter.). DOK: 3 Measurement units can be objects or units of measure (inches, feet, centimeters, and meters). Rulers may or may not be placed in the diagram. Items may include context.
2.G.2.b Compare the difference in length of objects using inches and feet or centimeters and meters.	Determines the difference in the length of two objects when measurements are only in one unit (only one of inches, feet, centimeters, meters) and subtraction is within 20 (e.g., determining the difference between 15 centimeters and 12 centimeters). DOK: 1 Items may include context. Refer to 2.G.2.a for comparing more than one measurement of the same object. Refer to 2.G.3.b for measuring and estimating lengths. Max DOK: 1	Determines the difference in the length of two objects when measurements are only in one unit and subtraction is within 100. (e.g. determining the difference between 85 centimeters and 12 centimeters). DOK: 1 Determines the difference in the length of two objects when measurements are two units within one system, subtraction is within 20 and calculation does not require regrouping/conversions (e.g. determining the difference between 2 feet 7 inches and 1 foot 3 inches). DOK: 2 Items may include context. Max DOK: 2	Determines the difference in the length of two objects when measurements are two units within one system, subtraction is within 20 - 100 and calculations does not require regrouping/conversions (e.g., determining the difference between 2 meters 45 centimeters and 1 meter 15 centimeters.). DOK: 2 Items may include context. Max DOK: 2
2.G.3 Measurement: Students will use tools to measure and estimate length using standard units.			
2.G.3.a Identify and use appropriate tools for measuring length.	Assessed at the local level		

2.G.3.b Measure and estimate lengths using whole numbers with inches, feet, centimeters, and meters.	Measures length to the nearest inch or centimeter when the ruler is placed in the diagram. DOK: 1 Measures length to the nearest meter or foot when the ruler is placed in the diagram. DOK: 1 Items may include context. Measuring feet or meters will be locally assessed for using a ruler that is not in the diagram. Refer to 2.G.2.a for comparisons of measurements. Max DOK: 1	Measures length to the nearest inch or centimeter using a ruler when the ruler is not placed in the diagram. DOK: 1 Estimates length to the nearest inch or centimeter based on one or more references but without the aid of a ruler. DOK: 1 Items may include context. Max DOK: 1	None at this level.
2.G.4 Relate Addition and Subtraction to Measurement: Students will add or subtract to solve length problems.			
2.G.4.a Represent whole numbers as equally spaced lengths on a number line diagram. Use number lines to find sums and differences within 100.	Determines whole numbers when marked on a number line (e.g. Which number line has the number 12 marked with an X? or Which number is represented by the X on the number line?). DOK: 1 The number line should show the appropriate range for the given problem. All number lines should indicate a scale of 1 through labeling some scale marks, but every point in the given range does not have to be labeled. Max DOK: 1	Models a whole number on a number line (e.g., Place the X where 12 is on the number line.). DOK: 1 Determines the correct modeling of addition or subtraction within 100 on a number line. (e.g. Which number line shows 25 + 5? Or Which subtraction problem is modeling on the number line? when given a number line showing 21 to 35 with a scale of 1) DOK: 1 The number line should show the appropriate range for the given problem. All number lines should indicate a scale of 1 through labeling some scale marks, but every point in the given range does not have to be labeled. Max DOK: 1	Models addition or subtraction within 100 on a number line. DOK: 1 The number line should show the appropriate range for the given problem. All number lines should indicate a scale of 1 through labeling some scale marks, but every point in the given range does not have to be labeled. Max DOK: 1
2.G.4.b Use addition and subtraction within 100 to solve problems using the same standard-length units.	Solves authentic addition and subtraction problems within 20 with supports involving measurement lengths within the same system and using the same units. May be up to two steps. DOK: 2 Refer to 2.G.2.b for comparing difference in lengths of objects in inches, feet, centimeters, and meters. Max DOK: 2	Solves authentic addition and subtraction problems within 20 without supports involving measurement lengths within the same system and using the same units. May be up to two steps. DOK: 2 Solves authentic addition and subtraction problems within 20 - 100 with supports involving measurement lengths within the same system and using the same units. May be up to two steps. Max DOK: 2	Solves authentic addition and subtraction problems within 20 - 100 without supports involving measurement lengths within the same system and using the same units. May be up to two steps. DOK: 2 Max DOK: 2
2.G.5 Time and Money: Students will solve problems with dollar bills and coins and tell time to the nearest five-minute interval.			

2.G.5.a Solve problems involving dollar bills, quarters, dimes, nickels, and pennies using $ and ¢ symbols appropriately.	Determines whether the given coins are quarters or nickels. DOK: 1 Determines the value, in cents, of a quarter or nickel. DOK: 1 Determines how many of one coins are equal in value to a given number of different coins with a higher value within 100 cents or 1 dollar (e.g., how many nickels have the same value as a quarter?). Does not include how many pennies are in a given number of dimes. DOK: 1 Determines how many bills are equal in value to a given number of different bills with a higher value within 100 dollars (e.g. how many $10 dollar bills have the same value as a $20 dollar bill?). DOK: 1 Answers should use "dollars" or the $ symbol and "cents" or the ¢ symbol appropriately. Dollar bills are limited to $1, $5, $10, $20 but may total up to $100. Items may include context. Refer to 1.G.3.a for dimes and pennies only. Refer to 2.G.4.a for adding/subtracting within 100 using number lines. Max DOK: 1	Solves authentic whole number addition and subtraction problems within 100 dollars and/or 100 cents involving dollars and/or cents with supports provided. May be up to two steps. DOK: 2 Answers should use "dollars" or the $ symbol and "cents" or the ¢ symbol appropriately. Dollar bills are limited to $1, $5, $10, $20 but may total up to $100. Max DOK: 2	Solves authentic whole number addition and subtraction problems within 100 dollars and/or 100 cents involving dollars and/or cents without supports. DOK: 2 Answers should use "dollars" or the $ symbol and "cents" or the ¢ symbol appropriately. Dollar bills are limited to $1, $5, $10, $20 but may total up to $100. Max DOK: 2
2.G.5.b Identify and write time to five-minute intervals using analog and digital clocks and both a.m. and p.m.	None at this level. Refer to 1.G.3.c for time to the hour or half-hour without reference to a.m. or p.m. Refer to 3.G.4.a for time internal terms ("past" such as quarter past, half past, etc.). Refer to 3.G.4.b for elapsed time problems.	Determines the correct time to the nearest hour or half-hour using a digital or analog clock where the correct time depends on accurately using a.m. or p.m. (e.g., refers to morning or afternoon when determining the time). DOK: 1 Determines the correct time to the nearest 5 minutes using a digital clock (other than hour/half-hour). May or may not require a.m. or p.m. DOK: 1 Identifies the correct time to the nearest 5 minutes using an analog clock (other than hour/half-hour). May or may not require a.m. or p.m. DOK: 1 Writes the correct time to the nearest 5 minutes using an analog clock (other than hour/half-hour). May or may not require a.m. or p.m. DOK: 2 Represents a given time to the nearest 5 minutes (other than hour/half-hour) on an analog clock. DOK: 1 Items may include context. Max DOK: 2	Explains or justifies given times and their representations on a digital or analog clock (e.g., explains why a clock with the minute hand at the 6 represents 30 minutes or the half-hour). DOK: 3 Max DOK: 3
DATA: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.			
2.D.1 Data Collection: Students will formulate questions to collect, organize, and represent data.			

2.D.1.a Ask authentic questions to generate data and represent the data using scaled picture graphs with up to four categories.	Identifies a pictograph with a scale of 1 that represents a given data set with four categories. DOK: 1 Refer to 1.D.1.a for pictographs with up to 3 categories. Max DOK: 1	Creates a pictograph with four categories and a scale of 1. Includes answering a question about steps in creating the graph. DOK: 2 Determines the question that would generate the needed data for a pictograph with four categories. DOK: 2 Max DOK: 2	Identifies a pictograph with a scale of 1 and four categories that represents an incomplete data set or data set that requires interpretation. DOK: 2 Ex: Ty, Deb, Fred, and Nancy have a total of 8 pencils. Ty has 4 pencils. Deb and Fred each have the same number of pencils. Which pictograph shows this data? Answers multiple questions about the creation of a pictograph with a scale of 1 and four categories. DOK: 3 Analyzes pictographs with four categories and a scale of 1 in relation to their corresponding data (e.g., explains an error in how a pictograph was created given a data set and a pictograph that incorrectly represents the data). DOK: 3 Max DOK: 3
2.D.1.b Ask authentic questions to generate data and represent the data using bar graphs with up to four categories.	Identifies a bar graph with a scale of 1 that represents a given data set with up to four categories. DOK: 1 Refer to 2.D.2.a for solving problems involving interpretation of comparisons using information provided in bar graphs with up to four categories and a scale of 1. Max DOK: 1	Creates bar graphs with up to four categories and a scale of 1. Includes answering a question about steps in creating the graph. DOK: 2 Identifies a bar graph with a scale of 1 and up to four categories that represents an incomplete data set. Determining quantity differences or comparisons is not required (e.g., Four categories are present in options but data is given for 3 categories where only one option has the correct values represented for the given categories.). DOK: 1 Determines the question that would generate the needed data for a bar graph. DOK: 2 Max DOK: 2	Answers multiple questions about the creation of a bar graph with a scale of 1 and up to four categories. DOK: 3 Analyzes bar graphs with up to four categories and a scale of 1 in relation to their corresponding data. (e.g., explains an error in how a bar graph was created given a data set and a bar graph that incorrectly represents the data). Does not involve interpretation of the data or comparisons. DOK: 3 Max DOK: 3
2.D.1.c Create and represent a data set by making a line plot using whole numbers.	Identifies a line plot with a scale of 1 that represents data involving only whole numbers. Line plots should have a scale of 1. DOK: 1 Refer to 3.D.1.b for line plots involving whole numbers with scales other than 1. Max DOK: 1	Creates a line plot with a scale of 1 that represents data involving only whole numbers. Includes answering a question about steps in creating the line plot. DOK: 2 Max DOK: 2	Answers multiple questions about the creation of a line plot with a scale of 1 that represents data involving whole numbers. DOK: 3 Analyzes line plots with a scale of 1 in relation to their corresponding data (e.g., explains an error in how a line plot with a scale of 1 was created). DOK: 3 Max DOK: 3
2.D.2 Analyze Data and Interpret Results: Students will analyze the data and interpret the results.			
2.D.2.a Analyze data using scaled picture graphs or bar graphs with up to four categories. Solve problems including one-step comparison problems, using information from the graphs.	Solves problems by reading information from scaled picture graphs or bar graphs with a scale of 1 and up to four categories. (e.g. How many students voted for dog as their favorite pet? How many students voted overall?) DOK: 2 Addition is within 100. Does not include subtraction at this level. Reminder that quantity differences is Grade 3. Refer to 3.D.2.a for quantity differences (how many more/how many less) related to bar graphs. Max DOK: 2	Solves comparison problems (more/less/same) by reading information from scaled picture graphs or bar graphs with a scale of 1 and up to four categories (e.g. Which animal was voted as the favorite pet?). DOK: 2 Addition and subtraction (if needed) is within 100. Reminder that quantity differences is Grade 3. Max DOK: 2	Determines a scaled picture graph or bar graph with a scale of 1 and up to four categories that represents a data set that requires interpretation of a comparison (more/less/same) or reading information from the graph (number in a category). DOK: 1 Ex: Troy, Liz, and Fred earned a total of 12 points. Troy earned 8 points. Liz and Fred earned the same number of points. Which bar graph shows this data? Analyzes statements about comparisons based on data represented in a scaled picture graph or bar graph with a scale of 1 and up to four categories. (e.g., determine the error in a given statement caused by misreading the information in the bar graph). DOK: 3 Addition and subtraction (if needed) is within 100. Reminder that quantity differences is Grade 3. Max DOK: 3