Alabama Item Specifications

Grade 2 Mathematics

Alabama Comprehensive Assessment Program

The draft Alabama Comprehensive Assessment Program (ACAP) item specifications are based upon the development of summative assessments that measure the Alabama Course of Study Standards. The item specifications define the purpose of the ACAP and provide important information regarding the content to be measured. The item specifications serve to provide a road map designed to guide Alabama educators in the development of items and subsequent review of items that best measure the Course of Study Standards for a given grade and content area. Each content-area and grade-level item specification aligned to the given domain, cluster, and standard includes the following key information regarding each domain:

- Evidence statements
- Assessment limits/Content constraints
- Recommended depth-of-knowledge (DOK) or cognitive levels
- Calculator usage
- Item types for measuring a given standard
- Information regarding whether context is allowable
- Sample stem information

Definitions

Course of Study Standards: The Course of Study Standards are a set of content curriculum statements that define what students should know and be able to do at a given grade level. The goal is to prepare students for future opportunities and options in the workplace and for everyday life. Through the implementation of the Alabama Course of Study for Mathematics, students will be well equipped for the workforce upon graduation or ready to pursue higher levels of education in Alabama's colleges and universities.

Domain: A domain is a group of related clusters and content standards. Sometimes standards from different domains may be closely related.

Cluster: A cluster is a group of related content standards. Because mathematics is a connected subject, standards from different clusters may sometimes be closely related.

Standard: The standard defines what students should understand (know) and be able to do at the conclusion of a course or grade. The standard text in the item specification is preceded by a standard identifier (e.g., 4.OA.1) to indicate the student grade level as fourth (4), the domain as Operations and Algebraic Thinking (OA), and the standard number as one (1).

Evidence Statements: Evidence statements are closely aligned to the standard and do not deviate from the requirements of the standard. Standards that are substantial in content do provide for a better opportunity to "unpack the standard," which is the case for many of the Alabama Course of Study Standards. The evidence statements serve that purpose.

Assessment Limits/Content Constraints: Assessment limits and/or content constraints define the range of content knowledge and the degree of difficulty allowable when items are written to measure a given standard.

Depth of Knowledge (DOK): Depth of knowledge involves the cognitive complexity or the nature of thinking regarding a given item. Most recently Webb's depth-of-knowledge levels are used in the development of items for cognitive demand. Therefore, when developing items for depth of knowledge, the item should be as demanding cognitively as what the actual standard expects. Webb's depth of knowledge includes four levels, from the lowest (basic recall) to the highest (extended thinking.) The mathematics ACAP assessment items are written to one of three cognitive levels of complexity:

- Level 1: Recall
- Level 2: Application of a Skill/Concept
- Level 3: Strategic Thinking

Item Types: The ACAP summative assessments are composed of various item types. These item types are described in the following section.

Context: Context provides information regarding the types of stimulus materials that can be used in the items. If a context is allowable, it means that the item may have context. If context is required, then the item measuring the given standard must have context. If no context is noted, then the items measuring the given standard should not have context.

Sample Stem Information: This statement explains what students are expected to do when they respond to a given item.

Item Types

The Alabama Comprehensive Assessment Program (ACAP) summative assessments are composed of various item types. These item types are described below.

Multiple-Choice (MC) Items: MC items have four answer choices, including three distractors and one correct answer. Distractors for mathematics represent common misconceptions, incorrect logic, incorrect application of an algorithm, computational errors, etc. A correct response to an MC item is worth one score point in the mathematics ACAP.

Multiple-Select (MS) Items: MS items are similar in structure to MC items. MC items have a stem and four answer options, one of which is correct. However, unlike an MC item, and MS item has more than four options and more than one correct answer. In other words, there are multiple responses required for a given item. For mathematics, there are two types of MS configurations. One has five answer options of which two are correct, and the other has six answer options of which two or three are correct. Directions for the number of options to select are provided with each item. A correct response to an MS item is worth one score point in the mathematics ACAP.

Short-Answer (SA) Items: SA items are constructed-response items that require a keyed response from the student. As such, they often require a brief series of objective, concise answers of just a few characters entered into a small response space (no extemporaneous test or explanatory work is required). In the mathematics ACAP, this item type is autoscored using scoring guidelines for the correct answer. A correct response to an SA item is worth one score point in the mathematics ACAP.

Technology-Enhanced (TE) Items: TE items share the same functional structure as traditional paper- and-pencil test items; however, the expansive features and functions of a computer-based medium allow for the incorporation of technical enhancements into traditional elements of a test item, such as the stem, the stimulus (if any), the response area, or a combination of all three. These items require the use of one or more tools. A correct response to a TE item is worth one score point in the mathematics ACAP. Grade 4 mathematics TE items include the following types:

- **Angle Draw Input:** These TE items provide a student with a given ray, and then the student completes the angle by drawing a second ray.
- **Drag-and Drop-Input**: These TE items provide a student with draggable entities that can be configured to be used once or multiple times.
- **Drop-Down List Input:** These TE items allow a student to select elements in drop-down lists that can be embedded within text or tables.
- **Hot Spot:** These TE items allow for one image to replace another image when a given hot spot is selected.
- **Line Plot Input:** These TE items provide another way for a student to graphically represent data when the structure is provided. Certain labeling on the line plot can be done by the student.
- **Matching:** These TE items allow for the use of text or graphics as the matching objects. The student selects one object and then selects a second object to connect them.
- **Matching Table:** These TE items include a table with multiple rows and columns, and the student makes matches between the given elements in the rows and columns. The table can be customized to allow for only a single selection in a row and/or column or for multiple selections within each.
- **Number Line Input:** These TE items allow a student to create a number line graph that might involve plotting points only or points and lines. Both closed and open points are available, as well as line segments and rays.

Math Reference Sheets

An online reference sheet is available as a pop-up window in certain grades.

Grade	Conversions	Formulas
2	No	No
3	No	No
4	Yes	Yes
5	Yes	Yes
6	Yes	Yes
7	Yes	Yes
8	Yes	Yes

Standards for Mathematical Practices

The Standards for Mathematical Practice are based on important "processes and proficiencies" that have longstanding importance in mathematics education. The first of these are the National Council of Teachers of Mathematics (NCTM) process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council's report *Adding It Up: Helping Children Learn Mathematics*. These proficiencies include adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations, and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently, and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy). Because these practices are an important part of the curriculum, they will be assessed throughout the mathematics ACAP. The eight Standards for Mathematical Practice are listed below, but more detail is provided in the Alabama Course of Study for Mathematics.

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Domain	OA: Operations and Algebraic Thinking
Cluster	Represent and solve problems involving addition and subtraction.
Standard	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. (See Appendix A, Table 1.) [2-OA1]
Evidence Statements	The student will 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.
Assessment Limits / Content Constraints	Tasks involve sums and minuends less than 100. Unknown may be written as a variable or box. Two-step problems should involve single-digit addends.
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given a word problem with an unknown, identify and/or use an equation to add or subtract numbers within 100.

Domain	OA: Operations and Algebraic Thinking
Cluster	Add and subtract within 20.
Standard	2.OA.2: Fluently add and subtract within 20 using mental strategies. (See standard 6, Grade 1, for a list of mental strategies.) By end of Grade 2, know from memory all sums of two one-digit numbers. [2-OA2]
Evidence Statements	The student will use mental strategies to fluently add and subtract within 20. The student will know from memory all sums of two one-digit numbers.
Assessment Limits / Content Constraints	Sum and minuend must be within 20. Fluency is defined as “skill in carrying out procedures flexibly, accurately, efficiently, and appropriately” (2016 Revised Alabama Course of Study: Mathematics) and is not limited to memorization.
DOK(s)	1
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	**This standard is not appropriate for large-scale assessment.**

Domain	OA: Operations and Algebraic Thinking
Cluster	Work with equal groups of objects to gain foundations for multiplication.
Standard	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. [2-OA3]
Evidence Statements	The student will determine whether a group of objects (up to 20) has an odd or even number of members and write an equation to express an even number as a sum of two equal addends.
Assessment Limits / Content Constraints	
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given a group of objects, in any orientation, determine whether the number of objects is even or odd. Write an equation that shows two equal addends equal an even number.

Domain	OA: Operations and Algebraic Thinking
Cluster	Work with equal groups of objects to gain foundations for multiplication.
Standard	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. [2-OA4]
Evidence Statements	The student will use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns and write an equation to express the total as a sum of equal addends.
Assessment Limits / Content Constraints	Vocabulary can include “array” but should not include “column” and “row”.
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given a rectangular array, write an addition equation that represents the total number in the array. Given a rectangular array, add to find the total number in the array.

Domain	NBT: Number and Operations in Base Ten
Cluster	Understand place value.
Standard	2.NBT.5a: 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: [2-NBT1] a. 100 can be thought of as a bundle of ten tens, called a “hundred.” [2-NBT1a]
Evidence Statements	The student will understand that 100 can be thought of as a bundle of ten tens, called a “hundred.”
Assessment Limits / Content Constraints	
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given 100 objects or the word “hundred,” determine how many groups of ten can be made. Given 10 groups of 10 objects, determine the number of objects, using words and numbers.

Domain	NBT: Number and Operations in Base Ten
Cluster	Understand place value.
Standard	2.NBT.5b: 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: [2-NBT1] b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). [2-NBT1b]
Evidence Statements	The student will understand that the numbers 100, 200, 300, 400, 500, 600, 700, 800, and 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
Assessment Limits / Content Constraints	
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given the word form, short word form, standard form, or manipulative representation of a three-digit number (with 0 tens and 0 ones), identify an equivalent but different form of the number.

Domain	NBT: Number and Operations in Base Ten
Cluster	Understand place value.
Standard	2.NBT.6: Count within 1000; skip-count by 5s, 10s, and 100s. [2-NBT2]
Evidence Statements	The student will count within 1000. The student will skip-count by 5s, 10s, and 100s within 1000.
Assessment Limits / Content Constraints	
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given a number, count backward or forward by 1s, 5s, 10s, or 100s. Identify the missing number in a sequence that skip-counts by 1s, 5s, 10s, or 100s.

Domain	NBT: Number and Operations in Base Ten
Cluster	Understand place value.
Standard	2.NBT.7: Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. [2-NBT3]
Evidence Statements	The student will use base-ten numerals, number names, and expanded form to read and write numbers to 1000.
Assessment Limits / Content Constraints	The vocabulary of the item should match the vocabulary of the standard (e.g., base-ten numerals, number names, and expanded form).
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given a number represented in base-ten numerals, word form, or expanded form, represent that number in a different form.

Domain	NBT: Number and Operations in Base Ten
Cluster	Understand place value.
Standard	2.NBT.8: Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits using >, =, and < symbols to record the results of comparisons. [2-NBT4]
Evidence Statements	The student will compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits and use >, =, and < symbols to record the results of comparisons.
Assessment Limits / Content Constraints	Low-difficulty items may include a pictorial representation of the two three-digit numbers.
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Identify whether a comparison is true. Given two numbers, use the symbols <, =, or > to make a comparison.

Domain	NBT: Number and Operations in Base Ten
Cluster	Use place value understanding and properties of operations to add and subtract.
Standard	2.NBT.9: Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. [2-NBT5]
Evidence Statements	The student will use strategies based on place value, properties of operations, and/or the relationship between addition and subtraction to fluently add and subtract within 100.
Assessment Limits / Content Constraints	Tasks involve sums and minuends within 100. Students are not expected to name, label, or identify the properties of operations. Fluency is defined as “skill in carrying out procedures flexibly, accurately, efficiently, and appropriately” (2016 Revised Alabama Course of Study: Mathematics) and is not limited to memorization.
DOK(s)	1
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	

Domain	NBT: Number and Operations in Base Ten
Cluster	Use place value understanding and properties of operations to add and subtract.
Standard	2.NBT.10: Add up to four two-digit numbers using strategies based on place value and properties of operations. [2-NBT6]
Evidence Statements	The student will use strategies based on place value and properties of operations to add up to four two-digit numbers.
Assessment Limits / Content Constraints	Students are not expected to name, label, or identify the properties of operations.
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given four two-digit numbers, find the sum.

Domain	NBT: Number and Operations in Base Ten
Cluster	Use place value understanding and properties of operations to add and subtract.
Standard	2.NBT.11: 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. [2-NBT7]
Evidence Statements	The student will use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction to add and subtract within 1000 and will relate the strategy to a written method. The student will understand that, in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones and that sometimes it is necessary to compose or decompose tens or hundreds.
Assessment Limits / Content Constraints	Tasks use concrete models or drawings unless within 100 or unless there is one simple decomposition/composition or no decomposition/composition.
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given two numbers, add or subtract, using models or drawings as appropriate.

Domain	NBT: Number and Operations in Base Ten
Cluster	Use place value understanding and properties of operations to add and subtract.
Standard	2.NBT.12: Mentally add 10 or 100 to a given number 100 – 900, and mentally subtract 10 or 100 from a given number 100 – 900. [2-NBT8]
Evidence Statements	The student will mentally add 10 or 100 to a given number 100–900 and mentally subtract 10 or 100 from a given number 100–900.
Assessment Limits / Content Constraints	
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	**This standard is not appropriate for large-scale assessment.**

Domain	NBT: Number and Operations in Base Ten
Cluster	Use place value understanding and properties of operations to add and subtract.
Standard	2.NBT.13: Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations may be supported by drawings or objects.) [2-NBT9]
Evidence Statements	The student will explain why addition and subtraction strategies work, using place value and the properties of operations.
Assessment Limits / Content Constraints	
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	

Domain	MD: Measurement and Data
Cluster	Measure and estimate lengths in standard units.
Standard	2.MD.14: Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. [2-MD1]
Evidence Statements	The student will measure the length of an object by selecting and using appropriate tools, such as rulers, yardsticks, meter sticks, and measuring tapes.
Assessment Limits / Content Constraints	Tasks should not assess “customary” or “metric.”
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given an object, identify the appropriate tool for measuring its length.

Domain	MD: Measurement and Data
Cluster	Measure and estimate lengths in standard units.
Standard	2.MD.15: 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. [2-MD2]
Evidence Statements	The student will measure the length of an object twice, using different units for the two measurements, and describe how the two measurements relate to the sizes of the units chosen.
Assessment Limits / Content Constraints	Tasks may include nonstandard units of measure.
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given an object, measure the object using two different tools and describe why the measurements differ.

Domain	MD: Measurement and Data
Cluster	Measure and estimate lengths in standard units.
Standard	2.MD.16: Estimate lengths using units of inches, feet, centimeters, and meters. [2-MD3]
Evidence Statements	The student will use units of inches, feet, centimeters, and meters to estimate lengths.
Assessment Limits / Content Constraints	Tasks should not require students to select both the tool and the unit.
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given an object, identify its approximate length with an appropriate unit.

Domain	MD: Measurement and Data
Cluster	Measure and estimate lengths in standard units.
Standard	2.MD.17: Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. [2-MD4]
Evidence Statements	The student will measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
Assessment Limits / Content Constraints	Tasks must stay within the same unit. Tasks use whole-number lengths. Tasks should not assess “customary” or “metric.”
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given two objects, determine how much longer one object is than the other.

Domain	MD: Measurement and Data
Cluster	Relate addition and subtraction to length.
Standard	2.MD.18: 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. [2-MD5]
Evidence Statements	The student will use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units (e.g., by using drawings of rulers and equations with a symbol for the unknown number to represent the problem).
Assessment Limits / Content Constraints	Tasks may include word problems for missing measurement problems (e.g., given the total distance around a triangle and two sides, find the third side). Standard units of distance are limited to inches, feet, centimeters, and meters. Unknowns should be in all positions and may be given by a variable or box.
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given a word problem involving lengths, use addition and subtraction to find an unknown.

Domain	MD: Measurement and Data
Cluster	Relate addition and subtraction to length.
Standard	2.MD.19: 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. [2-MD6]
Evidence Statements	The student will 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.
Assessment Limits / Content Constraints	
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given a number line, represent whole-number sums or distances. Use a number line to represent whole numbers.

Domain	MD: Measurement and Data
Cluster	Work with time and money.
Standard	2.MD.20: Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. [2-MD7]
Evidence Statements	The student will tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
Assessment Limits / Content Constraints	
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given a clock and a scenario, write the time and use a.m. or p.m. appropriately.

Domain	MD: Measurement and Data
Cluster	Work with time and money.
Standard	2.MD.21: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. [2-MD8] Example: If you have 2 dimes and 3 pennies, how many cents do you have?
Evidence Statements	The student will solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.
Assessment Limits / Content Constraints	
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given images of nickels and quarters, identify the name and value.

Domain	MD: Measurement and Data
Cluster	Represent and interpret data.
Standard	2.MD.22: 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. [2-MD9]
Evidence Statements	The student will generate measurement data by measuring lengths of several objects to the nearest whole unit or by making repeated measurements of the same object and show the measurements by making a line plot where the horizontal scale is marked off in whole-number units.
Assessment Limits / Content Constraints	Tasks do not include interpretation or analysis of data. Tasks require no more than 10 items to measure. Objects may need to be rounded to the nearest whole unit.
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Measure a group of objects and display the data on a line plot.

Domain	MD: Measurement and Data
Cluster	Represent and interpret data.
Standard	2.MD.23: 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. (See Appendix A, Table 1.) [2-MD10]
Evidence Statements	The student will draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. The student will solve simple put-together, take-apart, and compare problems using information presented in a bar graph.
Assessment Limits / Content Constraints	Data must have a context (e.g., science, social science, health). Tasks can have only a scale of 1. Tasks require no more than 10 data points.
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given data, create a picture graph or bar graph. Use the information from a picture graph or bar graph to solve simple one-step problems.

Domain	G: Geometry
Cluster	Reason with shapes and their attributes.
Standard	2.G.24: Recognize and draw shapes having specified attributes such as a given number of angles or a given number of equal faces. (Sizes are compared directly or visually, not compared by measuring.) Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. [2-G1]
Evidence Statements	The student will recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. The student will identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
Assessment Limits / Content Constraints	For two-dimensional shapes, tasks involve naming and describing the defining attributes of circles, triangles, squares, rectangles, rhombuses, and the general category of quadrilaterals. For three-dimensional shapes, a cube is the only shape that may be named formally, but other three-dimensional shapes may be used (e.g., to identify the shape of the face). Tasks involve describing pentagons, hexagons, heptagons, octagons, and other polygons by the number of sides; the formal names of these shapes are not assessed. Tasks involve using length to identify properties of a shape (e.g., a shape with four equal sides is a rhombus). Tasks include recognizing right angles.
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Identify shapes with the specified attribute(s).

Domain	G: Geometry
Cluster	Reason with shapes and their attributes.
Standard	2.G.25: Partition a rectangle into rows and columns of same-size squares, and count to find the total number of them. [2-G2]
Evidence Statements	The student will partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
Assessment Limits / Content Constraints	Tasks may not assess the distinction between rows and columns.
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Count the total number of squares when a rectangle is partitioned into rows and columns of same-size squares.

Domain	G: Geometry
Cluster	Reason with shapes and their attributes.
Standard	2.G.26: 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, or four fourths. Recognize that equal shares of identical wholes need not have the same shape. [2-G3]
Evidence Statements	The student will partition circles and rectangles into two, three, or four equal shares, use the words halves, thirds, half of, a third of, etc. to describe the shares, and describe the whole as two halves, three thirds, or four fourths. The student will recognize that equal shares of identical wholes need not have the same shape.
Assessment Limits / Content Constraints	
DOK(s)	1, 2, or 3
Calculator	NO – a calculator will not be available for items
Item Type(s)	MC, MS, SA, TE
Context	Allowable
Sample Stem Information (as applicable)	Given a partitioned circle or rectangle, describe the shares. Given two identical wholes partitioned differently but equally, identify the shares as equal.