

Student name: \_\_\_\_\_ Date of Report: \_\_\_\_\_

All 2019 Alabama Math Course of Study 3rd Grade standards must be taught within the 2021-2022 school year. This is a list of the Mathematics standards assessed for the standards-based report card. To achieve a score of 3, a student must consistently and independently do **all** of the “I can” statements for each standard. If a student consistently and independently does at least one of the “I can” statements then he/she will receive a score of a (2-), (2), or (2+).

This list compiles statements from the individual teacher-created proficiency scales for each power standard. It should be utilized to determine what pieces of evidence to include in each student’s portfolio. Each statement should be accompanied by tangible student evidence to support consistent and independent attainment.

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**ALCOS 1: Illustrate the product of two whole numbers as equal groups by identifying the number of groups and the number in each group and represent as a written expression.**

- Given a multiplication problem, I can represent quantities and operations with models, including arrays.
- Given a multiplication problem, I can represent quantities and operations with pictures, including arrays.
- Given a multiplication problem, I can represent quantities and operations with equations.
- I can interpret the product as the total number of objects in equal groups of equal objects.
- I can describe a context that can be modeled by a multiplication equation.

\*\*Products within 100

**(3)** = All skills      **(2+)** = 4 skills      **(2)** = 2-3 skills      **(2-)** = 1 skill      **(1)** = 0 skills independently

NOTES:

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**ALCOS 2: Illustrate and interpret the quotient of two whole numbers as the number of objects in each group or the number of groups when the whole is partitioned into equal shares.**

- I can interpret the quotient as the result when a whole number is split into the equal shares.
- I can explain that the quotient can represent the number in each group.
- I can explain that the quotient can represent the number of groups.
- Given a division context, I can represent the quantities and operations with a model.
- I can write a division equation to match a given context.
- I can write a context to match a division equation.

\*\*Dividends within 100

**(3)** = All skills      **(2+)** = 5 skills      **(2)** = 2-4 skills      **(2-)** = 1 skill      **(1)** = 0 skills independently

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**ALCOS 3: Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.**

- I can accurately solve multiplication word problems by using drawings to represent quantities in the problem.
- I can accurately solve multiplication word problems by using equations with symbols to represent the unknown.
- I can accurately solve division word problems by using drawings to represent quantities in the problem
- I can accurately solve division word problems by using equations with symbols to represent the unknown.

**(3)** = All skills      **(2+)** = 3 skills      **(2)** = 2 skills      **(2-)** = 1 skill      **(1)** = 0 skills independently

NOTES:

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**ALCOS 7: Use strategies based on properties and patterns of multiplication to demonstrate fluency with multiplication and division within 100.**

- a. Fluently determine all products obtained by multiplying two one-digit numbers.**
- b. State automatically all products of two one-digit numbers by the end of third grade.**

- I can accurately use an efficient strategy to multiply within 100.
- I can accurately use an efficient strategy to divide within 100.
- I can state automatically all products of two one-digit numbers.

**(3)** = All skills      **(2+)** = 2 skills      **(2)** = 1 skill      **(2-)** = N/A      **(1)** = 0 skills independently

NOTES:

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**ALCOS 8: Determine and justify solutions for two-step word problems using the four operations and write an equation with a letter standing for the unknown quantity. Determine reasonableness of answers using number sense, context, mental computation, and estimation strategies including rounding.**

- Given a context, I can write an equation using a letter (variable) to represent the unknown quantity.
- I can accurately solve two-step word problems using any combination of the four operations.
  - Evidence should reflect a variety of combinations.
- I can justify solutions to two-step word problems.
- I can determine reasonableness of answers (use number sense, context, mental computation, and estimation strategies including rounding).

**(3)** = All skills      **(2+)** = 3 skills      **(2)** = 2 skills      **(2-)** = 1 skill      **(1)** = 0 skills independently

NOTES:

**ALCOS 11: Use various strategies to add and subtract fluently within 1,000.**

- I can use place value strategies (base ten drawings, number lines, partial sums, place value chips, etc) to fluently add within 1,000.
- I can use strategies based on properties of operations (Associative and Commutative) to fluently add within 1,000.
- I can use place value strategies (base ten drawings, number lines, partial differences, place value chips, etc) to fluently subtract within 1,000.

(3) = All skills      (2+) = 2 skills      (2) = 1 skill      (2-) = N/A      (1) = 0 skills independently

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**ALCOS 12: Use concrete materials and pictorial models based on place value and properties of operations to find the product of a one-digit whole number by a multiple of ten (from 10 to 90).**

- I can model multiplying a one-digit whole number by a multiple of ten (from 10-90) using concrete models (base ten blocks, place value chips, etc).
- I can model multiplying a one-digit number by a multiple of ten (from 10 to 90) using pictorial models (skip counting on a number line, base ten representations, etc).
- I can identify patterns that occur when multiplying a one-digit number by a multiple of ten.
- I can accurately find the product of a one-digit number and a multiple of ten (from 10-90).

(3) = All skills      (2+) = 3 skills      (2) = 2 skills      (2-) = 1 skill      (1) = 0 skills independently

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**ALCOS 13: Demonstrate that a unit fraction represents one part of an area model or length model of a whole that has been equally partitioned; explain that a numerator greater than one indicates the number of unit pieces represented by the fraction.**

- I can create an area or length model that corresponds to a fraction written as  $\frac{1}{b}$ .
- I can write a unit fraction that corresponds to a pictorial or physical model.
- I can create an area or length model that corresponds to a given description of equal parts in a whole. *Example: Represent  $\frac{2}{3}$  by creating an accurate model divided into three equal units and indicating 2 of those pieces*
- I can explain that the numerator indicates the number of unit pieces represented by the fraction.

(3) = All skills      (2+) = 3 skills      (2) = 2 skills      (2-) = 1 skill      (1) = 0 skills independently

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**ALCOS 14: Interpret a fraction as a number on the number line; locate or represent fractions on a number line diagram.**

a. Represent a unit fraction ( $\frac{1}{b}$ ) on a number line by defining the interval from 0 to 1 as the whole and partitioning it into  $b$  equal parts as specified by the denominator.

b. Represent a fraction ( $\frac{a}{b}$ ) on a number line by marking off  $a$  lengths of size ( $\frac{1}{b}$ ) from zero.

*Denominators are limited to 2, 3, 4, 6, and 8.*

- I can recognize the whole as the space between 0 and 1, not just the point “1.”
- I can accurately partition a number line to represent equal parts specified by the denominator.
- I can identify a point on a number line that represents a given fraction.
- I can place a fraction on a number line by marking off lengths of unit fractions from zero.
- I can justify the placement of a fraction less than 1 on the number line.

(3) = All skills      (2+) = 4 skills      (2) = 2-3 skills      (2-) = 1 skill      (1) = 0 skills independently

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**ALCOS 15: Explain equivalence and compare fractions by reasoning about their size using visual fraction models and number lines.**

a. Express whole numbers as fractions and recognize fractions that are equivalent to whole numbers.

b. Compare two fractions with the same numerator or with the same denominator by reasoning about their size (recognizing that fractions must refer to the same whole for the comparison to be valid). Record comparisons using  $<$ ,  $>$ , or  $=$  and justify conclusions.

- I can explain equivalence of fractions using visual models.
- I can explain equivalence of fractions using number lines.
- I can use visual models (fraction bars, fraction circles, diagrams, pictures, etc) to generate equivalent fractions.
- I can write whole numbers as fractions.
- I can identify fractions that are equivalent to whole numbers.
- I can recognize that fractions must refer to the same whole for a comparison to be valid.
- I can accurately use  $<$ ,  $>$ ,  $=$  to compare fractions with the same numerator.
- I can accurately use  $<$ ,  $>$ ,  $=$  to compare fractions with the same denominator.
- I can justify the use of  $<$ ,  $>$ ,  $=$  when comparing two fractions.

(3) = All skills      (2+) = 7-8 skills      (2) = 4-6 skills      (2-) = 1-3 skills      (1) = 0 skills independently

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**ALCOS 22: Relate area to the operations of multiplication using real-world problems, concrete materials, mathematical reasoning, and the distributive property.**

- Given a real-world context, I can find the area of a rectangle using concrete models.
- I can create a multiplication equation to represent a rectangular figure partitioned into unit squares.
- I can find the area of a larger rectangle by breaking it into smaller rectangles, multiplying length X width of each smaller rectangle, and finding the sum of the areas (distributive property).
- I can justify the correlation between a multiplication equation and a real-world area context.

**(3)** = All skills      **(2+)** = 3 skills      **(2)** = 2 skills      **(2-)** = 1 skill      **(1)** = 0 skills independently

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**ALCOS 26: Recognize and describe polygons (up to 8 sides), triangles, and quadrilaterals (rhombuses, rectangles, and squares) based on the number of sides and the presence or absence of square corners.**

**a. Draw examples of quadrilaterals that are and are not rhombuses, rectangles, and squares.**

- I can recognize polygons with up to 8 sides based on the number of sides and the presence or absence of square corners.
- I can describe polygons with up to 8 sides based on the number of sides and the presence or absence of square corners.
- I can draw examples of quadrilaterals that are rhombuses, rectangles, and squares.
- I can draw examples of quadrilaterals that are not rhombuses, rectangles, or squares.

**(3)** = All skills      **(2+)** = 3 skills      **(2)** = 2 skills      **(2-)** = 1 skill      **(1)** = 0 skills independently

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