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Grade 3: PA Academic Eligible Content and PA Common Core Crosswalk

Alignment of Eligible Content: More than Just Content

The crosswalk below is designed to show the alignment between the PA Academic Standard Eligible Content and the PA Common Core Eligible Content. While content is in many cases similar, the **key message is that PA Common Core focused instruction is more rigorous and will prepare students for upcoming PSSAs and future PA Common Core aligned PSSAs.**

The defining element of the PA Common Core Standards is one of rigor. Barbara Blackburn elaborates on the concept of rigor when she states: "True rigor is creating an environment in which each student is expected to learn at high levels, each student is supported so he or she can learn at high levels, and each student demonstrates learning at high levels.[1]"

Focus on PA Common Core

As instruction segues from the PA Academic Standards to the PA Common Core Standards, it is important to understand the need to prepare students for the current and upcoming PA CC-aligned PSSAs and to consider not only the content but the degree of rigor embraced by the new standards. Instructional time should focus on four critical areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes.

PA Common Core – Raising the Bar

Educators will note that the items developed to measure the new Assessment Anchors and Eligible Content (Common Core aligned AA/EC) will differ from the current PSSA items in both rigor and difficulty. This will be a direct result of the rigor of the new Assessment Anchors and Eligible Content where the average Depth of Knowledge (DOK) will be higher than the DOK of the existing PSSA Assessment Anchors and Eligible Content. As a result, educators should see items written at the higher cognitive levels (e.g., level 2 and level 3). However, that does not mean that a DOK level 1 item will not be found on the transitioned PSSA. For example, an item measuring math fluency is typically written at DOK level 1. For reading, there may be a vocabulary AA/EC that allows for an item to be written at DOK 1.

Regardless of the increased rigor of the items measuring the new Assessment Anchors and Eligible Content (Common Core aligned AA/EC), educators will also perceive the difficulty of the assessment to have increased.

Eye on the Standards

It is important to remember that while Assessment Anchors and Eligible Content provide the blueprint for the PSSA assessments, they are a reflection only of what can be assessed in large scale testing and do not reflect all of classroom instruction.

[1] Barbara Blackburn, *Rigor and the Common Core State Standards*, mailto:http://www.educationworld.com/a_admin/rigor-and-common-core-state-standards.shtml (January 2013)

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PA Academic Standards Eligible Content ----------	PA Common Core Standards Eligible Content ----------	Comment
M3.A Numbers and Operations	**M03.A-T Numbers and Operations in Base Ten** **M03.A-F Numbers and Operations - Fractions**	
M3.A.1.1.1 Match the word name with the appropriate whole number (up through 9,999).	Intentionally Blank	Not specifically addressed in PACCS Eligible Content
M3.A.1.1.2 Differentiate between and/or give examples of even and odd number (limit to 3 digits).	Intentionally Blank	Not specifically addressed in PACCS Eligible Content
M3.A.1.1.3 Compare two whole numbers using greater than (>), less than (<) or equal to (=) (up through 9,999).	Intentionally Blank	Not specifically addressed in PACCS Eligible Content
M3.A.1.1.4 Order a set of whole numbers from least to greatest or greatest to least (up through 9,999; limit sets to no more than four numbers).	**M03.A-T.1.1.4** Order a set of whole numbers from least to greatest or greatest to least (up through 9,999; limit sets to no more than four numbers).	Same eligible content
M3.A.1.1.5 Match a symbolic representation of numbers to appropriate whole numbers (e.g., base ten blocks, 7 hundreds, 4 tens and 8 ones, etc.).	Intentionally Blank	Not specifically addressed in PACCS Eligible Content
M3.A.1.2.1 Write the fraction that corresponds to a drawing or part of a set (numerators 1-9, denominators 2-10. No equivalent or improper fractions or mixed numbers).	**M03.A-F.1.1.1** Demonstrate that when a whole or set is partitioned into y equal parts, the fraction 1/y represents 1 part of the whole and the fraction x/y represents x equal parts of the whole (limit the denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; no simplification necessary). **M03.A-F.1.1.2** Represent fractions on a number line diagram (limit the denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; no simplification necessary).	PA focuses on using models and drawings to show a fraction as part of a whole PACCS does not exclude models but focuses on understanding a fraction as a number and looking at the size of a unit fraction compared to the whole

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M3.A.1.2.2 Create a drawing or set that represents a given fraction (numerators 1-9, denominators 2-10. No equivalent or improper fractions or mixed numbers).	**M03.A-F.1.1.3** Recognize and generate simple equivalent fractions (limit the denominators to 1, 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator). Example 1: 1/2 = 2/4; Example 2: 4/6 = 2/3 **M03.A-F.1.1.4** Express whole numbers as fractions, and generate fractions that are equivalent to whole numbers (limit the denominators to 1, 2, 3, 4, 6, and 8). Example 1: Express 3 in the form 3 = 3/1 Example 2: Recognize that 6/1 = 6.	PA Academic focuses on using models and drawings to show a fraction as part of a whole. PACCS does not exclude models but focuses on understanding a fraction as a number and looking at the size of a unit fraction compared to the whole.
M3.A.1.3.1 Count a collection of bills and coins less than $5.00 (penny, nickel, dime, quarter, dollar). Money may be represented as 15 cents, 15¢ or $0.15.	Intentionally Blank	Not specifically addressed in PACCS Eligible Content
M3.A.1.3.2 Compare total values of combinations of coins less than $5.00 (penny, nickel, dime, quarter, dollar).	**M03.D-M.1.3.1** Compare total values of combinations of coins (penny, nickel, dime, quarter) and or dollar bills less than $5.00.	Same eligible content
M3.A.1.3.3 Make change for an amount up to $5.00 with no more than $2.00 change given (penny, nickel, dime, quarter, and dollar).	**M03.D-M.1.3.2** Make change for an amount up to $5.00 with no more than $2.00 change given (penny, nickel, dime, quarter, and dollar).	Same eligible content
M3.A.2.1.1 Represent multiplication as repeated addition.	Intentionally Blank	Not specifically addressed in PACCS Eligible Content
M3.A.2.1.2 Demonstrate the inverse relationship between addition and subtraction using fact families and/or factors.	Intentionally Blank	Not specifically addressed in PACCS Eligible Content
M3.A.2.1.3 Identify the correct operation(s) to solve a word problem (no more than 2 operations using +, - and/or X).	Intentionally Blank	Not specifically addressed in PACCS Eligible Content
M3.A.3.1.1 Solve single- and double- digit addition and subtraction problems with and without regrouping in vertical or horizontal form.	**M03.A-T.1.1.2** Add two- and three-digit whole numbers (limit sums from 100 through 1,000), and subtract two-and three-digit numbers from three-digit whole numbers.	PACCS addresses three-digit whole numbers

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M3.A.3.1.2 Solve problems involving multiplication through the 9's tables through 9x5.	**M03.A-T.1.1.3** Multiply one-digit whole numbers by two-digit multiples of 10 (from 10 through 90).	PACCS moves towards two-digit numbers
M3.A.3.1.3 Solve triple digit addition and subtraction problems without regrouping in vertical or horizontal form.	Intentionally Blank	Not specifically addressed in PACCS Eligible Content
M3.A.3.2.1 Estimate sums and differences of quantities; round 2-digit numbers to the nearest 10, and 3 digit numbers to the nearest 100, before computing (limit to two numbers).	**M03.A-T.1.1.1** Round two- and three-digit whole numbers to the nearest ten or hundred, respectively.	PA focuses on estimation as well as rounding, while PACCS focuses on rounding using place value understanding and properties and place value to perform multi-digit arithmetic
Intentionally Blank	**M03.A-F.1.1.5** Compare two fractions with the same denominator (limit the denominators to 1, 2, 3, 4, 6, and 8), using the symbols >, =, or <, and/or justify the conclusions.	Not specifically addressed in PA Academic Standard Eligible Content. In transitioning to PACCS, these specific statements will be assessed and should be explicitly addressed.
M3.B Measurement	**M03.D-M Measurement and Data**	
M3.B.1.1.1 Tell/show time (analog) to the minute.	**M03.D-M.1.1.1** Tell, show, and/or write time (analog) to the nearest minute.	PA Academic focuses on time while PACCS also focuses on solving problems involving liquid volumes and masses. PACCS also uses a number line to represent time intervals.
M3.B.1.1.2 Find elapsed time to increments of 5 minutes (limited to 2 adjacent hours).	**M03.D-M.1.1.2** Calculate the elapsed time to the minute in a given situation (total elapsed time limited to 60 minutes or less).	PACCS wants to expand elapse time to the nearest minute
M3.B.1.1.3 Identify times of the day and night as AM and PM.	Intentionally Blank	Not specifically addressed in PACCS Eligible Content
M3.B.1.2.1 Select an appropriate unit for the attribute being measured.	Intentionally Blank	Not specifically addressed in PACCS Eligible Content
M3.B.1.2.2 Compare and/or order objects according to length, area, or weight.	**M03.D-M.1.2.1** Measure and estimate liquid volumes and masses of objects using standard units (cups [c], pints [pt.], quarts [qtrs.], gallons	PA Academic focuses on estimating and verifying length, area, weight, and capacity while

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	[gal], ounces [oz.], and pounds [lb.]) and metric units (liters [l], grams [g], and kilograms [kg]).	PACCS also focuses on time and solving problems involving measurement and estimation.
M3.B.2.1.1 Use a ruler (provided) to measure to the nearest ½ inch.	**M03.D-M.1.2.3** Use a ruler to measure lengths to the nearest quarter inch or centimeter.	PACCS addresses metric and standard measurements
M3.B.2.2.1 Match the object with its approximate measurement (all measurements given must be of the same system, e.g., about how tall is a soda pop can? 5 inches, 5 feet, 5 yards, etc.).	**M03.D-M.1.2.2** Add, subtracts, multiply, and divides to solve one-step word problems involving masses or liquid volumes that are given in the same units.	Not specifically addressed in PACCS Eligible Content
Intentionally Blank	**M03.D-M.1.3.3** Round amounts of money to the nearest dollar.	Not specifically addressed in PA Academic Standards Eligible Content. In transitioning to PACCS, these specific statements will be assessed and should be explicitly addressed.
Intentionally Blank	**M03.D-M.3.1.1** Measure areas by counting unit squares (square cm, square m, square in., square ft., and non-standard square units).	Not specifically addressed in PA Academic Standards Eligible Content. In transitioning to PACCS, these specific statements will be assessed and should be explicitly addressed.
Intentionally Blank	**M03.D-M.3.1.2** Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.	Not specifically addressed in PA Academic Standards Eligible Content. In transitioning to PACCS, these specific statements will be assessed and should be explicitly addressed.
Intentionally Blank	**M03.D-M.4.1.1** Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas, and exhibiting rectangles with the same area and different	Not specifically addressed in PA Academic Standards Eligible Content. In transitioning to PACCS, these specific statements will be assessed and should be explicitly addressed.

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	perimeters. Use the same units throughout the problem.	
M3.C Geometry	**M03.C-G Geometry**	
M3.C.1.1.1 Name/identify/describe geometric shape in two dimensions (circle, square, rectangle, triangle, pentagon, hexagon, and octagon).	**M03.C-G.1.1.1** Explain that shapes in different categories may share attributes, and that the shared attributes can define a larger category. Example 1: A rhombus and a rectangle are both quadrilaterals since they both have exactly four sides. Example 2: A triangle and a pentagon are both polygons since they are both multi-sided plane figures.	PACCS addresses explanations of shapes
M3.C.1.1.2 Name/identify geometric shapes in three dimensions (sphere, cube, cylinder, cone, pyramid, rectangular prism).	**M03.C-G.1.1.2** Recognize rhombi, rectangles, and squares as examples of quadrilaterals, and/or draw examples of quadrilaterals that do not belong to any of these subcategories.	PACCS addresses additional shapes
M3.C.2.1.1 Identify/draw one line of symmetry in a two-dimensional figure.	**M03.C-G.1.1.3** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. Example 1: Partition a shape into 4 parts with equal areas. Example 2: Describe the area of each of 8 equal parts as 1/8 of the area of the shape.	PACCS addresses use of the concept of fractions to partition shapes
M3.C.2.1.2 Identify symmetrical two-dimensional shapes.	**M03.C-G.1.1.3** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. Example 1: Partition a shape into 4 parts with equal areas. Example 2: Describe the area of each of 8 equal parts as 1/8 of the area of the shape.	PACCS addresses use of the concept of fractions to partition shapes
M4.D Algebraic Concepts	**M03. B-O Operations and Algebraic Thinking**	
M3.D.1.1.1 Extend or find a missing element in a pattern of numbers or shapes (pattern must show 3 repetitions – if multiples are used, limit to 2, 3 or 5).	**M03.B-O.3.1.5** Identify arithmetic patterns (including patterns in the addition table or multiplication table) and/or explain them using properties of operations. Example 1: Observe that 4 times a number is always even. Example 2: Explain why 6 times a number can be decomposed into three equal addends.	PACCS expands patterns to properties order of operations
M3.D.1.1.2 Identify/describe the rule for a pattern shown (pattern must show 3	**M03.B-O.3.1.5** Identify arithmetic patterns (including patterns in the addition table or	PACCS expands to addition and multiplication patterns

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repetitions – if multiples are used, limit to 2, 3 or 5).	multiplication table) and/or explain them using properties of operations. Example 1: Observe that 4 times a number is always even. Example 2: Explain why 6 times a number can be decomposed into three equal addends.	
M3.D.2.1.1 Create or match a story to a given combination of symbols (+, –, x, <, >, =) and numbers.	**M03.B-O.3.1.6** Create or match a story to a given combination of symbols (+, –, ×, ÷, <, >, =) and numbers.	Same eligible content
M3.D.2.1.2 Choose the number sentence that matches a given story (one operation, + or – only).	**M03.B-O.3.1.1** Solve two-step word problems using the four operations (expressions are not explicitly stated). Limit to problems with whole numbers and having whole-number answers.	PACCS works to solve word problems
M3.D.2.2.1 Find a missing number that makes a number sentence true (1-digit or 2-digit numbers up to 18 using +, - or x through 9 x 5).	**M03.B-O.3.1.2** Represent two-step word problems using equations with a symbol standing for the unknown quantity. Limit to problems with whole numbers and having whole-number answers.	PACCS goes beyond
M3.D.2.2.2 Identify the missing symbol (+, -, =, <, >) that makes a number sentence true.	**M03.B-O.3.1.7** Identify the missing symbol (+, –, =, <, >) that makes a number sentence true.	Same eligible content
Intentionally Blank	**M03.B-O.1.1.1** Interpret and/or describe products of whole numbers (up to and including 10 × 10). Example 1: Interpret 35 as the total number of objects in 5 groups, each containing 7 objects. Example 2: Describe a context in which a total number of objects can be expressed as 5 × 7.	Not specifically addressed in PA Academic Standards Eligible Content. In transitioning to PACCS, these specific statements will be assessed and should be explicitly addressed.
Intentionally Blank	**M03.B-O.1.1.2** Interpret and/or describe whole-number quotients of whole numbers (limit dividends through 50, and limit divisors and quotients through 10). Example 1: Interpret 48 ÷ 8 as the number of objects in each share when 48 objects are partitioned equally into 8 shares, or as a number of shares when 48 objects are partitioned into equal shares of 8 objects each. Example 2: Describe a context in which a number of shares or a number of groups can be expressed as 48 ÷ 8.	Not specifically addressed in PA Academic Standards Eligible Content. In transitioning to PACCS, these specific statements will be assessed and should be explicitly addressed.

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Intentionally Blank	**M03. B-O.1.2.1** Use multiplication (up to and including 10 × 10) and/or division (limit dividends through 50, and limit divisors and quotients through 10) to solve word problems in situations involving equal groups, arrays, and/or measurement quantities.	Not specifically addressed in PA Academic Standards Eligible Content. In transitioning to PACCS, these specific statements will be assessed and should be explicitly addressed.
Intentionally Blank	**M03. B-O.1.2.2** Determine the unknown whole number in a multiplication (up to and including 10 × 10) or division (limit dividends through 50, and limit divisors and quotients through 10) equation relating three whole numbers. Example: Determine the unknown number that makes an equation true.	Not specifically addressed in PA Academic Standards Eligible Content. In transitioning to PACCS, these specific statements will be assessed and should be explicitly addressed.
Intentionally Blank	**M03.B-O.2.1.1** Apply the commutative property of multiplication (not identification or definition of the property).	Not specifically addressed in PA Academic Standards Eligible Content. In transitioning to PACCS, these specific statements will be assessed and should be explicitly addressed.
Intentionally Blank	**M03.B-O.2.1.2** Apply the associative property of multiplication (not identification or definition of the property).	Not specifically addressed in PA Academic Standards Eligible Content. In transitioning to PACCS, these specific statements will be assessed and should be explicitly addressed.
Intentionally Blank	**M03.B-O.2.2.1** Interpret and/or model division as a multiplication equation with an unknown-factor. Example: Find 32 ÷ 8 by solving 8 ×? = 32.	Not specifically addressed in PA Academic Standards Eligible Content. In transitioning to PACCS, these specific statements will be assessed and should be explicitly addressed
Intentionally Blank	**M03.B-O.3.1.3** Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers.	Not specifically addressed in PA Academic Standards Eligible Content. In transitioning to PACCS, these

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		specific statements will be assessed and should be explicitly addressed.
Intentionally Blank	**M03.B-O.3.1.4** Solve two-step equations using order of operations (equation is explicitly stated with no grouping symbols).	Not specifically addressed in PA Academic Standards Eligible Content. In transitioning to PACCS, these specific statements will be assessed and should be explicitly addressed.
M3.E Data Analysis and Probability	**M03.D-M Measurement and Data**	
M3.E.1.1.1 Analyze data shown on tables, charts, or bar graphs using the concepts of largest, smallest, most often, least often and middle.	**M03.D-M.2.1.2** Solve one- and two-step problems using information to interpret data presented in scaled pictographs and scaled bar graphs (scales limited to 1, 2, 5, and 10). Example 1: (One-step) "Which category is the largest?" Example 2: (Two-step) "How many more is in category A than in category B?"	PACCS combines representing and interpreting in one standard. However, it also focuses on scaled graphs.
M3.E.1.1.2 Describe, interpret and/or answer questions based on data shown in tables, charts or bar graphs.	**M03.D-M.2.1.2** Solve one- and two-step problems using information to interpret data presented in scaled pictographs and scaled bar graphs (scales limited to 1, 2, 5, and 10). Example 1: (One-step) "Which category is the largest?" Example 2: (Two-step) "How many more is in category A than in category B?"	PACCS combines representing and interpreting in one standard. However, it also focuses on scaled graphs.
M3.E.1.2.1 Graph data or complete a graph given the data (grid is provided).	**M03.D-M.2.1.1** Complete a scaled pictograph and a scaled bar graph to represent a data set with several categories (scales limited to 1, 2, 5, and 10). **M03.D-M.2.1.3** Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Display the data by making a line plot, where the horizontal scale is marked in appropriate units—whole numbers, halves, or quarters.	PACCS also focuses on scaled picture and bar graphs, while PA does not. CC also focuses on interpreting the data all in one standard.
M3.E.1.2.2 Translate information from one type of display to another (e.g., convert tally chart to bar graph). Limit to tally charts, bar	**M03.D-M.2.1.4** Translate information from one type of display to another. Limit to pictographs, tally charts, bar graphs, and	PACCS also focuses on scaled picture and bar graphs, while PA does not. CC also focuses on

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graphs and tables.	tables. Example: convert tally chart to bar graph.	interpreting the data all in one standard.