

## Correlation of SMc IAP Assessment and the Smarter Balanced Achievement Level Descriptors

Using over 2,000 students at each grade level, SMc Curriculum correlated students' 2014-15 and 2015-16 SMc IAP scores (best attempt) to their Smarter Balanced Assessment score. The table below shows the predicted Smarter Balanced Math Achievement Level Descriptor (ALD) based on this correlation. This is meant to be a tool to inform the analysis of your SMc IAP scores throughout the year.

NOTE: The High School SMc IAP Assessment had been previously correlated to OAKS for Essential Skills and scores greater than 182.5 are approved for meeting the HS Essential Skills requirement in Oregon for graduation. This scores remains the Essential Skills cut score. Students who receive a Level 2 ALD on the Smarter Balanced Math Assessment also meet the Essential Skill requirement.

### SMc IAP Cut Scores Compared to Smarter Balanced Achievement Level Descriptors

Smarter Balanced ALD	Level 1	Level 2		Level 3		Level 4
	Below and To	From	To	From	To	From and Above
<b>3<sup>rd</sup> Grade (out of 240)</b>	111	112	139	140	170	171
<b>4<sup>th</sup> Grade (out of 240)</b>	93	94	133	134	168	169
<b>5<sup>th</sup> Grade (out of 240)</b>	95	96	135	136	164	165
<b>6<sup>th</sup> Grade (out of 320)</b>	131	132	180	181	216	217
<b>7<sup>th</sup> Grade (out of 320)</b>	120	121	163	164	199	200
<b>8<sup>th</sup> Grade (out of 320)</b>	112	113	154	155	189	190
<b>11<sup>th</sup> Grade (out of 400)</b>	193	194	223	224	253	254

NOTE: After analyzing winter (December to January) scores, most students (over 78%) moved up one level by the end of the year. This statistic may be helpful when analyzing winter assessment data.

## Grade 3 SMC IAP Assessment Score Report Guide

Targets/Clusters	Number of Items	Number of Points	Approximate Weight of Overall Score	<i>Correlated</i> SBAC Level 3 Threshold
<p><b><u>Operations and Algebraic Thinking (OA)</u></b>  <b>A.</b> Represent and solve problems involving multiplication and division.  <b>B.</b> Understand properties of multiplication and the relationship between multiplication and division.  <b>C.</b> Multiply and divide within 100.  <b>D.</b> Solve problems involving the four operations, and identify and explain patterns in arithmetic.</p>	8	80	33%	46 out of 80
<p><b><u>Number and Operations – Fractions (NF)</u></b>  <b>F.</b> Develop understanding of fractions as numbers.</p>	5	50	21%	29 out of 50
<p><b><u>Measurement and Data (MD Priority)</u></b>  <b>G.</b> Solve problems involving measurement and estimation of intervals of time, liquid volumes and masses of objects.  <b>I.</b> Geometric measurement: understand concepts of area and relate area to multiplication and to addition.</p>	5	50	21%	29 out of 50
<p><b><u>Measurement and Data (MD Supporting)</u></b>  <b>J.</b> Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.  <b>H.</b> Represent and interpret data.</p>	2	20	8%	12 out of 20
<p><b><u>Geometry (G)</u></b>  <b>K.</b> Reason with shapes and their attributes.</p>	2	20	8%	12 out of 20
<p><b><u>Number and Operations in Base Ten (NBT)</u></b>  <b>E.</b> Use place value understanding and properties of operations to perform multi-digit arithmetic.</p>	2	20	8%	12 out of 20
<b>TOTAL</b>	24	240	100%	140 out of 240

## Grade 4 SMc IAP Assessment Score Report Guide

Targets/Clusters	Number of Items	Number of Points	Approximate Weight of Overall Score	<i>Correlated</i> SBAC Level 3 Threshold
<b><u>Operations and Algebraic Thinking (OA Priority)</u></b> A. Use the four operations with whole numbers to solve problems.	5	50	21%	28 out of 50
<b><u>Number and Operations in Base Ten (NBT)</u></b> D. Generalize place value understanding for multi-digit whole numbers. E. Use place value understanding and properties of operations to perform multi-digit arithmetic.	5	50	21%	28 out of 50
<b><u>Number and Operations- Fractions (NF)</u></b> F. Extend understanding of fraction equivalence and ordering. G. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. H. Understand decimal notation for fractions, and compare decimal fractions.	8	80	33%	45 out of 80
<b><u>Operations and Algebraic Thinking (OA Supporting)</u></b> B. Gain familiarity with factors and multiples. C. Generate and analyze patterns.	2	20	8%	11 out of 20
<b><u>Measurement and Data (MD)</u></b> I. Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. J. Represent and interpret data. K. Geometric measurement: understand concepts of angle and measure angles.	2	20	8%	11 out of 20
<b><u>Geometry (G)</u></b> L. Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	2	20	8%	11 out of 20
<b>TOTAL</b>	24	240	100%	134 out of 240

## Grade 5 SMC IAP Assessment Score Report Guide

Targets/Clusters	Number of Items	Number of Points	Approximate Weight of Overall Score	<i>Correlated</i> SBAC Level 3 Threshold
<b><u>Number and Operations in Base Ten (NBT)</u></b> C. Understand the place value system. D. Perform operations with multi-digit whole numbers and with decimals to hundredths.	7	70	29%	39 out of 70
<b><u>Number and Operations –Fractions (NF)</u></b> E. Use equivalent fractions as a strategy to add and subtract fractions. F. Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	7	70	29%	39 out of 70
<b><u>Measurement and Data (MD Priority)</u></b> I. Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	4	40	17%	22 out of 40
<b><u>Measurement and Data (MD Supporting)</u></b> G. Convert like measurement units within a given measurement system. H. Represent and interpret data.	2	20	8%	12 out of 20
<b><u>Operations and Algebraic Thinking (OA)</u></b> A. Write and interpret numerical expressions. B. Analyze patterns and relationships.	2	20	8%	12 out of 20
<b><u>Geometry (G)</u></b> J. Graph points on the coordinate plane to solve real-world and mathematical problems. K. Classify two-dimensional figures into categories based on their properties.	2	20	8%	12 out of 20
<b>TOTAL</b>	24	240	100%	136 out of 240

## Grade 6 SMC IAP Assessment Score Report Guide

Non-Calculator Targets/Clusters	Number of Items	Number of Points	Approximate Weight of Overall Score	<i>Correlated</i> SBAC Level 3 Threshold
<b><u>Ratios and Proportional Reasoning (RP)</u></b> A. Understand ratio concepts and use ratio reasoning to solve problems.	6	60	19%	34 out of 60
<b><u>The Number System (NS Priority)</u></b> B. Apply and extend previous understandings of multiplication and division to divide fractions by fractions. D. Apply and extend previous understandings of numbers to the system of rational numbers.	8	80	25%	46 out of 80
<b><u>The Number System (NS Supporting)</u></b> C. Compute fluently with multi-digit numbers and find common factors and multiples.	2	20	7%	11 out of 20
<b>TOTAL Non-Calculator</b>	<b>16</b>	<b>160</b>	<b>50%</b>	<b>91 out of 160</b>
Calculator Targets/Clusters	Number of Items	Number of Points	Approximate Weight of Overall Score	<i>Correlated</i> SBAC Level 3 Threshold
<b><u>Expressions and Equations (EE)</u></b> E. Apply and extend previous understandings of arithmetic to algebraic expressions. F. Reason about and solve one-variable equations and inequalities. G. Represent and analyze quantitative relationships between dependent and independent variables.	10	100	31%	57 out of 100
<b><u>Geometry (G)</u></b> H. Solve real-world and mathematical problems involving area, surface area, and volume.	3	30	9%	17 out of 30
<b><u>Statistics and Probability (SP)</u></b> I. Develop understanding of statistical variability. J. Summarize and describe distributions.	3	30	9%	16 out of 30
<b>TOTAL Calculator</b>	<b>16</b>	<b>160</b>	<b>50%</b>	<b>90 out of 160</b>
<b>TOTAL OVERALL SCORE</b>	<b>32</b>	<b>320</b>	<b>100%</b>	<b>181 out of 320</b>

## Grade 7 SMC IAP Assessment Score Report Guide

Non-Calculator Targets/Clusters	Number of Items	Number of Points	Approximate Weight of Overall Score	<i>Correlated</i> SBAC Level 3 Threshold
<b><u>The Number System</u></b> B. Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	6	60	19%	31 out of 60
<b><u>Expressions and Equations</u></b> C. Use properties of operations to generate equivalent expressions. D. Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	10	100	31%	51 out of 100
<b>TOTAL Non-Calculator</b>	16	160	50%	82 out of 160
Calculator Targets/Clusters	Number of Items	Number of Points	Approximate Weight of Overall Score	<i>Correlated</i> SBAC Level 3 Threshold
<b><u>Ratios and Proportional Reasoning</u></b> A. Analyze proportional relationships and use them to solve real-world and mathematical problems.	8	80	25%	41 out of 80
<b><u>Geometry</u></b> E. Draw, construct and describe geometrical figures and describe the relationships between them. F. Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	5	50	16%	26 out of 50
<b><u>Statistics and Probability</u></b> G. Use random sampling to draw inferences about a population. H. Draw informal comparative inferences about two populations. I. Investigate chance processes and develop, use, and evaluate probability models.	3	30	9%	15 out of 30
<b>TOTAL Calculator</b>	16	160	50%	82 out of 160
<b>TOTAL OVERALL SCORE</b>	32	320		164 out of 320

## Grade 8 SMC IAP Assessment Score Report Guide

Targets/Clusters	Number of Items	Number of Points	Approximate Weight of Overall Score	<i>Correlated</i> SBAC Level 3 Threshold
<u><b>Expressions and Equations</b></u> B. Work with radicals and integer exponents. D. Analyze and solve linear equations and pairs of simultaneous linear equations.	8	80	25%	39 out of 80
<u><b>Expressions and Equations</b></u> C. Understand the connections between proportional relationships, lines, and linear equations. <u><b>Functions</b></u> E. Define, evaluate, and compare functions. F. Use functions to model relationships between quantities.	8	80	25%	39 out of 80
<u><b>Geometry</b></u> G. Understand congruence and similarity using physical models, transparencies, or geometry software. H. Understand and apply the Pythagorean Theorem.	8	80	25%	39 out of 80
<u><b>The Number System</b></u> A. Know that there are numbers that are not rational, and approximate them by rational numbers.	2	20	7%	10 out of 20
<u><b>Geometry</b></u> I. Solve real-world and mathematical problems involving volume of cylinders, cones and spheres.	3	30	9%	14 out of 30
<u><b>Statistics and Probability</b></u> J. Investigate patterns of association in bivariate data.	3	30	9%	14 out of 30
<b>TOTAL OVERALL SCORE</b>	<b>32</b>	<b>320</b>	<b>100%</b>	<b>155 out of 320</b>