***Which Standards Does the SBAC Assessment Measure?***

***Summary from SBAC Content Specifications***

**SBAC Alignment to Grade 8 Standards**

*KEY: Claim 1 is red, Claim 2 is blue, Claim 3 is purple, Claim 4 is green. Target letter follows the hyphen.*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Number System** | **SBAC Claim-Target** | **Expressions and Equations** | **SBAC Claim-Target** | **Functions** | **SBAC Claim-Target** | **Statistics and Probability** | **SBAC Claim-Target** | **Geometry** | **SBAC Claim-Target** |
| **NS.1** | **1-A** | **EE.1** | **1-B****3- A thru G** | **F.1** | **1-E****2-A thru D****3- A thru G** | **SP.1** | **1-J****4-A thru G** | **G.1** | **1-G****2-A thru D****3- A thru G** |
| **NS.2** | **1-A** | **EE.2** | **1-B** | **F.2** | **1-E****2-A thru D****3- A thru G** | **SP.2** | **1-J****4-A thru G** | **G.2** | **1-G****2-A thru D****3- A thru G** |
|  |  | **EE.3** | **1-B****4-A thru G** | **F.3** | **1-E****2-A thru D****3- A thru G** | **SP.3** | **1-J****4-A thru G** | **G.3** | **1-G****2-A thru D** |
|  |  | **EE.4** | **1-B****4-A thru G** | **F.4** | **1-F****2-A thru D****4-A thru G** | **SP.4** | **1-J****4-A thru G** | **G.4** | **1-G****2-A thru D****3- A thru G** |
|  |  | **EE.5** | **1-C****2-A thru D****3- A thru G****4-A thru G** | **F.5** | **1-F****2-A thru D****4-A thru G** |  |  | **G.5** | **1-G****2-A thru D****3- A thru G** |
|  |  | **EE.6** | **1-C****2-A thru D** **3- A thru G****4-A thru G** |  |  |  |  | **G.6** | **1-H****2-A thru D****3- A thru G****4-A thru G** |
|  |  | **EE.7** | **1-D****2-A thru D****3- A thru G****4-A thru G** |  |  |  |  | **G.7** | **1-H****2-A thru D****4-A thru G** |
|  |  | **EE.8** | **1-D****2-A thru D****3- A thru G****4-A thru G** |  |  |  |  | **G.8** | **1-H****2-A thru D****3- A thru G****4-A thru G** |
|  |  |  |  |  |  |  |  | **G.9** | **1-I****2-A thru D****4-A thru G** |

**Smarter Balanced Claims for Math**

* **Claim 1:** **Concepts & Procedures –** Students can explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency.
* **Claim 2: Problem Solving –** Students can solve a range of complex well-posed problems in pure and applied mathematics, making productive use of knowledge and problem solving strategies.
* **Claim 3: Communicating Reasoning –** Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.
* **Claim 4:** **Modeling and Data Analysis** – Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.

**Smarter Balanced Claims & Targets for Math**

*“m” – denotes major*

*“a/s” denotes additional/supporting*

**Claim 1: Concepts & Procedures –** Students can explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency.

* Target A [a/s]: Know that there are numbers that are not rational, and approximate them by rational numbers.
* Target B [m]: Work with radicals and integer exponents.
* Target C [m] Understand the connections between proportional relationships, lines, and linear equations.
* Target D [m]: Analyze and solve linear equations and pairs of simultaneous linear equations.
* Target E [m]: Define, evaluate, and compare functions.
* Target F [m]: Use functions to model relationships between quantities.
* Target G [m]: Understand congruence and similarity using physical models, transparencies, or geometry software.
* Target H [m]: Understand and apply the Pythagorean theorem.
* Target I [a/s]: Solve real-world and mathematical problems involving volume of cylinders, cones and spheres.
* Target J [a/s]: Investigate patterns of association in bivariate data.

**Claim 2: Problem Solving –** Students can solve a range of complex well-posed problems in pure and applied mathematics, making productive use of knowledge and problem solving strategies.

* **Target A:** Apply mathematics to solve well-posed problems in pure mathematics and those arising in everyday life, society, and the workplace.
* **Target B:** Select and use appropriate tools strategically.
* **Target C:** Interpret results in the context of a situation.
* **Target D:** Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flowcharts, or formulas).

**Claim 3: Communicating Reasoning –** Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.

* **Target A:** Test propositions or conjectures with specific examples.
* **Target B:** Construct, autonomously, 12 chains of reasoning that will justify or refute propositions or conjectures.
* **Target C:** State logical assumptions being used.
* **Target D:** Use the technique of breaking an argument into cases.
* **Target E:** Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.
* **Target F:** Base arguments on concrete referents such as objects, drawings, diagrams, and actions.
* **Target G:** At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)

**Claim 4:** **Modeling and Data Analysis** – Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.

* **Target A:** Apply mathematics to solve problems arising in everyday life, society, and the workplace.
* **Target B:** Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.
* **Target C:** State logical assumptions being used.
* **Target D:** Interpret results in the context of a situation.
* **Target E:** Analyze the adequacy of and make improvements to an existing model or develop a
* mathematical model of a real phenomenon.
* **Target F:** Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flowcharts, or formulas).
* **Target G:** Identify, analyze and synthesize relevant external resources to pose or solve problems.