

Alignments of PSAT/NMSQT Skill Categories and State Standards

PSAT/NMSQT Skill Category and Description of Skills	Wisconsin Math: Model Academic Standards 2000		
	Course/ Level	Standard	Standard ID
<b>Algebra and Functions</b> Solve problems using algebraic expressions and symbols to represent relationships, patterns and functions of different types.	Grades: 9-12	F.12.1 Analyze and generalize patterns of change (e.g., direct and inverse variation) and numerical sequences, and then represent them with algebraic expressions and equations	F.12.1
	Grades: 9-12	F.12.2 Use mathematical functions (e.g., linear, exponential, quadratic, power) in a variety of ways, including  recognizing that a variety of mathematical and real-world phenomena can be modeled by the same type of function	F.12.2.a
	Grades: 9-12	F.12.2 Use mathematical functions (e.g., linear, exponential, quadratic, power) in a variety of ways, including  translating different forms of representing them (e.g., tables, graphs, functional notation, formulas)	F.12.2.b
	Grades: 9-12	F.12.2 Use mathematical functions (e.g., linear, exponential, quadratic, power) in a variety of ways, including  describing the relationships among variable quantities in a problem	F.12.2.c
	Grades: 9-12	F.12.2 Use mathematical functions (e.g., linear, exponential, quadratic, power) in a variety of ways, including  using appropriate technology to interpret properties of their graphical representations (e.g., intercepts, slopes, rates of change, changes in rates of change, maximum, minimum)	F.12.2.d
	Grades: 9-12	F.12.3 Solve linear and quadratic equations, linear inequalities, and systems of linear equations and inequalities  numerically	F.12.3.a
	Grades: 9-12	F.12.3 Solve linear and quadratic equations, linear inequalities, and systems of linear equations and inequalities  graphically, including use of appropriate technology	F.12.3.b

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<b>Algebra and Functions</b> Solve problems using algebraic expressions and symbols to represent relationships, patterns and functions of different types.	Grades: 9-12	F.12.3 Solve linear and quadratic equations, linear inequalities, and systems of linear equations and inequalities  symbolically, including use of the quadratic formula	F.12.3.c
	Grades: 9-12	F.12.4 Model and solve a variety of mathematical and real-world problems by using algebraic expressions, equations, and inequalities	F.12.4
<b>Communication</b> Express mathematical ideas precisely and communicate them coherently and clearly in the language and notation of mathematics.	Grades: 9-12	A.12.6 Read and understand  mathematical ideas as they are used in other contexts	A.12.6
	Grades: 9-12	A.12.1 Use reason and logic to  identify relationships	A.12.1.c
	Grades: 9-12	A.12.2 Communicate logical arguments and clearly show  why a result does or does not make sense	A.12.2.a
	Grades: 9-12	A.12.2 Communicate logical arguments and clearly show  why the reasoning is or is not valid	A.12.2.b
	Grades: 9-12	A.12.2 Communicate logical arguments and clearly show  an understanding of the difference between examples that support a conjecture and a proof of the conjecture	A.12.2.c
	Grades: 9-12	A.12.4 Develop effective oral and written presentations employing correct mathematical terminology, notation, symbols, and conventions for mathematical arguments and display of data	A.12.4

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<b>Communication</b> Express mathematical ideas precisely and communicate them coherently and clearly in the language and notation of mathematics.	Grades: 9-12	A.12.5 Organize work and present mathematical procedures and results clearly, systematically, succinctly, and correctly	A.12.5
	Grades: 9-12	A.12.6 Read and understand  mathematical texts and other instructional materials	A.12.6.a
	Grades: 9-12	A.12.6 Read and understand  writing about mathematics (e.g., articles in journals)	A.12.6.b
	Grades: 9-12	B.12.3 Perform and explain operations on real numbers (add, subtract, multiply, divide, raise to a power, extract a root, take opposites and reciprocals, determine absolute value)	B.12.3
	Grades: 9-12	C.12.1 Identify, describe, and analyze properties of figures, relationships among figures, and relationships among their parts by  drawing precisely with paper-and-pencil, hand calculators, and computer software	C.12.1.b
	Grades: 9-12	C.12.4 Use the two-dimensional rectangular coordinate system and algebraic procedures to describe and characterize geometric properties and relationships such as slope, intercepts, parallelism, and perpendicularity	C.12.4
	Grades: 9-12	D.12.2 Select and use tools with appropriate degree of precision to determine measurements directly within specified degrees of accuracy and error (tolerance)	D.12.2
<b>Data, Statistics, and Probability</b> Analyze data, understand descriptive statistics, make inferences and determine the likelihood that certain events will occur.	Grades: 9-12	E.12.1 Work with data in the context of real-world situations by  formulating hypotheses that lead to collection and analysis of one- and two-variable data	E.12.1.a
	Grades: 9-12	E.12.1 Work with data in the context of real-world situations by  designing a data collection plan that considers random sampling, control groups, the role of assumptions, etc.	E.12.1.b

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<p><b>Data, Statistics, and Probability</b></p> <p>Analyze data, understand descriptive statistics, make inferences and determine the likelihood that certain events will occur.</p>	Grades: 9-12	E.12.1 Work with data in the context of real-world situations by conducting an investigation based on that plan	E.12.1.c
	Grades: 9-12	E.12.1 Work with data in the context of real-world situations by using technology to generate displays, summary statistics, and presentations	E.12.1.d
	Grades: 9-12	E.12.2 Organize and display data from statistical investigations using frequency distributions	E.12.2.a
	Grades: 9-12	E.12.2 Organize and display data from statistical investigations using percentiles, quartiles, deciles	E.12.2.b
	Grades: 9-12	E.12.2 Organize and display data from statistical investigations using line of best fit (estimated regression line)	E.12.2.c
	Grades: 9-12	E.12.3 Interpret and analyze information from organized and displayed data when given measures of dispersion, including standard deviation and variance	E.12.3.a
	Grades: 9-12	E.12.3 Interpret and analyze information from organized and displayed data when given measures of reliability	E.12.3.b
	Grades: 9-12	E.12.3 Interpret and analyze information from organized and displayed data when given measures of correlation	E.12.3.c

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<b>Data, Statistics, and Probability</b> Analyze data, understand descriptive statistics, make inferences and determine the likelihood that certain events will occur.	Grades: 9-12	E.12.4 Analyze, evaluate, and critique the methods and conclusions of statistical experiments reported in journals, magazines, news media, advertising, etc.	E.12.4
	Grades: 9-12	E.12.5 Determine the likelihood of occurrence of complex events by using a variety of strategies (e.g., combinations) to identify possible outcomes	E.12.5.a
	Grades: 9-12	E.12.5 Determine the likelihood of occurrence of complex events by conducting an experiment	E.12.5.b
	Grades: 9-12	E.12.5 Determine the likelihood of occurrence of complex events by designing and conducting simulations	E.12.5.c
	Grades: 9-12	E.12.5 Determine the likelihood of occurrence of complex events by applying theoretical probability	E.12.5.d
<b>Geometry and Measurement</b> Solve problems based on understanding the properties of shapes, such as triangles and circles, and the spatial relationships between angles and lines.	Grades: 9-12	C.12.1 Identify, describe, and analyze properties of figures, relationships among figures, and relationships among their parts by constructing physical models	C.12.1.a
	Grades: 9-12	C.12.1 Identify, describe, and analyze properties of figures, relationships among figures, and relationships among their parts by drawing precisely with paper-and-pencil, hand calculators, and computer software	C.12.1.b
	Grades: 9-12	C.12.1 Identify, describe, and analyze properties of figures, relationships among figures, and relationships among their parts by using appropriate transformations (e.g., translations, rotations, reflections, enlargements)	C.12.1.c

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<p><b>Geometry and Measurement</b></p> <p>Solve problems based on understanding the properties of shapes, such as triangles and circles, and the spatial relationships between angles and lines.</p>	Grades: 9-12	<p>C.12.1 Identify, describe, and analyze properties of figures, relationships among figures, and relationships among their parts by</p> <p>using reason and logic</p>	C.12.1.d
	Grades: 9-12	C.12.2 Use geometric models to solve mathematical and real-world problems	C.12.2
	Grades: 9-12	<p>C.12.3 Present convincing arguments by means of demonstration, informal proof, counter-examples, or any other logical means to show the truth of</p> <p>statements (e.g., these two triangles are not congruent)</p>	C.12.3.a
	Grades: 9-12	<p>C.12.3 Present convincing arguments by means of demonstration, informal proof, counter-examples, or any other logical means to show the truth of</p> <p>generalizations (e.g., the Pythagorean theorem holds for all right triangles)</p>	C.12.3.b
	Grades: 9-12	C.12.4 Use the two-dimensional rectangular coordinate system and algebraic procedures to describe and characterize geometric properties and relationships such as slope, intercepts, parallelism, and perpendicularity	C.12.4
	Grades: 9-12	D.12.1 Identify, describe, and use derived attributes (e.g., density, speed, acceleration, pressure) to represent and solve problem situations	D.12.1
	Grades: 9-12	D.12.2 Select and use tools with appropriate degree of precision to determine measurements directly within specified degrees of accuracy and error (tolerance)	D.12.2
	Grades: 9-12	<p>D.12.3 Determine measurements indirectly, using</p> <p>estimation</p>	D.12.3.a
	Grades: 9-12	<p>D.12.3 Determine measurements indirectly, using</p> <p>proportional reasoning, including those involving squaring and cubing (e.g., reasoning that areas of circles are proportional to the squares of their radii)</p>	D.12.3.b

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<b>Geometry and Measurement</b> Solve problems based on understanding the properties of shapes, such as triangles and circles, and the spatial relationships between angles and lines.	Grades: 9-12	D.12.3 Determine measurements indirectly, using techniques of algebra, geometry, and right triangle trigonometry	D.12.3.c
	Grades: 9-12	D.12.3 Determine measurements indirectly, using formulas in applications (e.g., for compound interest, distance formula)	D.12.3.d
	Grades: 9-12	D.12.3 Determine measurements indirectly, using geometric formulas to derive lengths, areas, or volumes of shapes and objects (e.g., cones, parallelograms, cylinders, pyramids)	D.12.3.e
	Grades: 9-12	D.12.3 Determine measurements indirectly, using geometric relationships and properties of circles and polygons (e.g., size of central angles, area of a sector of a circle)	D.12.3.f
	Grades: 9-12	D.12.3 Determine measurements indirectly, using conversion constants to relate measures in one system to another (e.g., meters to feet, dollars to Deutschmarks)	D.12.3.g
<b>Number and Operations</b> Understand types of numbers (integers, fractions, decimals), their properties and the correct order of operations. Perform computations correctly.	Grades: 9-12	B.12.1 Use complex counting procedures such as union and intersection of sets and arrangements (permutations and combinations) to solve problems	B.12.1
	Grades: 9-12	B.12.2 Compare real numbers using order relations ( $>$ , $<$ ) and transitivity	B.12.2.a
	Grades: 9-12	B.12.2 Compare real numbers using arithmetic differences	B.12.2.c

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<b>Number and Operations</b> Understand types of numbers (integers, fractions, decimals), their properties and the correct order of operations. Perform computations correctly.	Grades: 9-12	B.12.2 Compare real numbers using ratios, proportions, percents, rates of change	B.12.2.d
	Grades: 9-12	B.12.3 Perform and explain operations on real numbers (add, subtract, multiply, divide, raise to a power, extract a root, take opposites and reciprocals, determine absolute value)	B.12.3
	Grades: 9-12	B.12.4 In problem-solving situations involving the application of different number systems (natural, integers, rational, real) select and use appropriate computational procedures	B.12.4.a
	Grades: 9-12	B.12.4 In problem-solving situations involving the application of different number systems (natural, integers, rational, real) select and use appropriate properties (e.g., commutativity, associativity, inverses)	B.12.4.b
	Grades: 9-12	B.12.4 In problem-solving situations involving the application of different number systems (natural, integers, rational, real) select and use appropriate modes of representation (e.g., rationals as repeating decimals, indicated roots as fractional exponents)	B.12.4.c
	Grades: 9-12	B.12.5 Create and critically evaluate numerical arguments presented in a variety of classroom and real-world situations (e.g., political, economic, scientific, social)	B.12.5
	Grades: 9-12	B.12.6 Routinely assess the acceptable limits of error when evaluating strategies	B.12.6.a
	Grades: 9-12	B.12.6 Routinely assess the acceptable limits of error when testing the reasonableness of results	B.12.6.b

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<p><b>Number and Operations</b></p> <p>Understand types of numbers (integers, fractions, decimals), their properties and the correct order of operations. Perform computations correctly.</p>	Grades: 9-12	<p>B.12.6 Routinely assess the acceptable limits of error when using technology to carry out computations</p>	B.12.6.c
<p><b>Problem Solving</b></p> <p>Solve abstract and practical problems, applying and adapting a variety of strategies. Monitor progress and evaluate answers in terms of questions asked.</p>	Grades: 9-12	<p>B.12.1 Use complex counting procedures such as union and intersection of sets and arrangements (permutations and combinations) to solve problems</p>	B.12.1
	Grades: 9-12	<p>B.12.4 In problem-solving situations involving the application of different number systems (natural, integers, rational, real) select and use appropriate computational procedures</p>	B.12.4.a
	Grades: 9-12	<p>B.12.4 In problem-solving situations involving the application of different number systems (natural, integers, rational, real) select and use appropriate properties (e.g., commutativity, associativity, inverses)</p>	B.12.4.b
	Grades: 9-12	<p>B.12.4 In problem-solving situations involving the application of different number systems (natural, integers, rational, real) select and use appropriate modes of representation (e.g., rationals as repeating decimals, indicated roots as fractional exponents)</p>	B.12.4.c
	Grades: 9-12	<p>B.12.6 Routinely assess the acceptable limits of error when evaluating strategies</p>	B.12.6.a
	Grades: 9-12	<p>B.12.6 Routinely assess the acceptable limits of error when using technology to carry out computations</p>	B.12.6.c
	Grades: 9-12	<p>C.12.2 Use geometric models to solve mathematical and real-world problems</p>	C.12.2

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<b>Problem Solving</b> Solve abstract and practical problems, applying and adapting a variety of strategies. Monitor progress and evaluate answers in terms of questions asked.	Grades: 9-12	D.12.1 Identify, describe, and use derived attributes (e.g., density, speed, acceleration, pressure) to represent and solve problem situations	D.12.1
	Grades: 9-12	D.12.3 Determine measurements indirectly, using estimation	D.12.3.a
	Grades: 9-12	D.12.3 Determine measurements indirectly, using proportional reasoning, including those involving squaring and cubing (e.g., reasoning that areas of circles are proportional to the squares of their radii)	D.12.3.b
	Grades: 9-12	D.12.3 Determine measurements indirectly, using techniques of algebra, geometry, and right triangle trigonometry	D.12.3.c
	Grades: 9-12	D.12.3 Determine measurements indirectly, using formulas in applications (e.g., for compound interest, distance formula)	D.12.3.d
	Grades: 9-12	D.12.3 Determine measurements indirectly, using geometric formulas to derive lengths, areas, or volumes of shapes and objects (e.g., cones, parallelograms, cylinders, pyramids)	D.12.3.e
	Grades: 9-12	D.12.3 Determine measurements indirectly, using geometric relationships and properties of circles and polygons (e.g., size of central angles, area of a sector of a circle)	D.12.3.f
	Grades: 9-12	D.12.3 Determine measurements indirectly, using conversion constants to relate measures in one system to another (e.g., meters to feet, dollars to Deutschmarks)	D.12.3.g

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<p><b>Problem Solving</b></p> <p>Solve abstract and practical problems, applying and adapting a variety of strategies. Monitor progress and evaluate answers in terms of questions asked.</p>	Grades: 9-12	E.12.1 Work with data in the context of real-world situations by  formulating hypotheses that lead to collection and analysis of one- and two-variable data	E.12.1.a
	Grades: 9-12	E.12.1 Work with data in the context of real-world situations by  designing a data collection plan that considers random sampling, control groups, the role of assumptions, etc.	E.12.1.b
	Grades: 9-12	E.12.1 Work with data in the context of real-world situations by  conducting an investigation based on that plan	E.12.1.c
	Grades: 9-12	E.12.1 Work with data in the context of real-world situations by  using technology to generate displays, summary statistics, and presentations	E.12.1.d
	Grades: 9-12	E.12.5 Determine the likelihood of occurrence of complex events by  using a variety of strategies (e.g., combinations) to identify possible outcomes	E.12.5.a
	Grades: 9-12	E.12.5 Determine the likelihood of occurrence of complex events by  conducting an experiment	E.12.5.b
	Grades: 9-12	E.12.5 Determine the likelihood of occurrence of complex events by  designing and conducting simulations	E.12.5.c
	Grades: 9-12	E.12.5 Determine the likelihood of occurrence of complex events by  applying theoretical probability	E.12.5.d

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<p><b>Problem Solving</b></p> <p>Solve abstract and practical problems, applying and adapting a variety of strategies. Monitor progress and evaluate answers in terms of questions asked.</p>	Grades: 9-12	<p>F.12.2 Use mathematical functions (e.g., linear, exponential, quadratic, power) in a variety of ways, including</p> <p>translating different forms of representing them (e.g., tables, graphs, functional notation, formulas)</p>	F.12.2.b
	Grades: 9-12	<p>F.12.2 Use mathematical functions (e.g., linear, exponential, quadratic, power) in a variety of ways, including</p> <p>describing the relationships among variable quantities in a problem</p>	F.12.2.c
	Grades: 9-12	<p>F.12.3 Solve linear and quadratic equations, linear inequalities, and systems of linear equations and inequalities</p> <p>numerically</p>	F.12.3.a
	Grades: 9-12	<p>F.12.3 Solve linear and quadratic equations, linear inequalities, and systems of linear equations and inequalities</p> <p>graphically, including use of appropriate technology</p>	F.12.3.b
	Grades: 9-12	<p>F.12.3 Solve linear and quadratic equations, linear inequalities, and systems of linear equations and inequalities</p> <p>symbolically, including use of the quadratic formula</p>	F.12.3.c
	Grades: 9-12	<p>F.12.4 Model and solve a variety of mathematical and real-world problems by using algebraic expressions, equations, and inequalities</p>	F.12.4
<p><b>Reasoning</b></p> <p>Develop and use mathematical arguments and proofs to explore the truth of conjectures and justify conclusions.</p>	Grades: 9-12	<p>A.12.1 Use reason and logic to</p> <p>evaluate information</p>	A.12.1.a

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<b>Reasoning</b> Develop and use mathematical arguments and proofs to explore the truth of conjectures and justify conclusions.	Grades: 9-12	A.12.1 Use reason and logic to perceive patterns	A.12.1.b
	Grades: 9-12	A.12.1 Use reason and logic to formulate questions, pose problems, and make and test conjectures	A.12.1.d
	Grades: 9-12	A.12.1 Use reason and logic to pursue ideas that lead to further understanding and deeper insight	A.12.1.e
	Grades: 9-12	A.12.3 Analyze non-routine problems and arrive at solutions by various means, including models and simulations, often starting with provisional conjectures and progressing, directly or indirectly, to a solution, justification, or counter-example	A.12.3
	Grades: 9-12	B.12.2 Compare real numbers using order relations (>,<) and transitivity	B.12.2.a
	Grades: 9-12	B.12.2 Compare real numbers using arithmetic differences	B.12.2.c
	Grades: 9-12	B.12.2 Compare real numbers using ratios, proportions, percents, rates of change	B.12.2.d
	Grades: 9-12	B.12.6 Routinely assess the acceptable limits of error when testing the reasonableness of results	B.12.6.b

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<b>Reasoning</b> Develop and use mathematical arguments and proofs to explore the truth of conjectures and justify conclusions.	Grades: 9-12	C.12.1 Identify, describe, and analyze properties of figures, relationships among figures, and relationships among their parts by  using reason and logic	C.12.1.d
	Grades: 9-12	E.12.3 Interpret and analyze information from organized and displayed data when given  measures of dispersion, including standard deviation and variance	E.12.3.a
	Grades: 9-12	E.12.3 Interpret and analyze information from organized and displayed data when given  measures of reliability	E.12.3.b
	Grades: 9-12	E.12.3 Interpret and analyze information from organized and displayed data when given  measures of correlation	E.12.3.c
	Grades: 9-12	E.12.4 Analyze, evaluate, and critique the methods and conclusions of statistical experiments reported in journals, magazines, news media, advertising, etc.	E.12.4
	Grades: 9-12	F.12.1 Analyze and generalize patterns of change (e.g., direct and inverse variation) and numerical sequences, and then represent them with algebraic expressions and equations	F.12.1
	Grades: 9-12	F.12.2 Use mathematical functions (e.g., linear, exponential, quadratic, power) in a variety of ways, including  recognizing that a variety of mathematical and real-world phenomena can be modeled by the same type of function	F.12.2.a
	Grades: 9-12	F.12.2 Use mathematical functions (e.g., linear, exponential, quadratic, power) in a variety of ways, including  using appropriate technology to interpret properties of their graphical representations (e.g., intercepts, slopes, rates of change, changes in rates of change, maximum, minimum)	F.12.2.d

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<b>Representation</b> Use and translate among representations including verbal, numerical, symbolic and graphical to communicate mathematical ideas and solve problems.	Grades: 9-12	B.12.5 Create and critically evaluate numerical arguments presented in a variety of classroom and real-world situations (e.g., political, economic, scientific, social)	B.12.5
	Grades: 9-12	C.12.1 Identify, describe, and analyze properties of figures, relationships among figures, and relationships among their parts by  constructing physical models	C.12.1.a
	Grades: 9-12	C.12.1 Identify, describe, and analyze properties of figures, relationships among figures, and relationships among their parts by  using appropriate transformations (e.g., translations, rotations, reflections, enlargements)	C.12.1.c
	Grades: 9-12	C.12.3 Present convincing arguments by means of demonstration, informal proof, counter-examples, or any other logical means to show the truth of  statements (e.g., these two triangles are not congruent)	C.12.3.a
	Grades: 9-12	C.12.3 Present convincing arguments by means of demonstration, informal proof, counter-examples, or any other logical means to show the truth of  generalizations (e.g., the Pythagorean theorem holds for all right triangles)	C.12.3.b
	Grades: 9-12	E.12.2 Organize and display data from statistical investigations using  frequency distributions	E.12.2.a
	Grades: 9-12	E.12.2 Organize and display data from statistical investigations using  percentiles, quartiles, deciles	E.12.2.b
	Grades: 9-12	E.12.2 Organize and display data from statistical investigations using  line of best fit (estimated regression line)	E.12.2.c

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# PSAT/NMSQT Skills Insight™ Alignment to State Standards

## Executive Summary, July 2010

### Purpose

PSAT/NMSQT *Skills Insight*™ is a free online tool designed to help students and educators gain a better understanding of how PSAT/NMSQT® scores relate to specific academic skills. It provides a description of the academic skills that are typical of students scoring at each score band, suggestions for improvement, and practice test questions. Learn more by visiting [www.collegeboard.com/psatskills](http://www.collegeboard.com/psatskills).

The information provided by PSAT/NMSQT *Skills Insight* is organized by skill category. There are five skill categories for the critical reading section, nine for the mathematics section (4 content skill categories; 5 process skill categories), and 5 for the writing skills section. This report shows the alignment between state standards in English Language Arts and Mathematics and the content and skills measured by the PSAT/NMSQT.

### Using Alignment Results with PSAT/NMSQT Reports

Schools and districts that administer the PSAT/NMSQT have access to the *Summary of Answers and Skills* (SOAS) report<sup>1</sup>. SOAS reports summarize performance on test sections, skill categories, and individual test questions, and compare local results to the state or nation. Using SOAS and the alignment information provided in this report, schools and districts can develop remediation strategies to help students improve their college readiness skills, future SAT scores, and performance on state assessments.

### Mathematics: Alignment Approach and Findings

- There are nine Skills Categories in Mathematics, representing both content and process skills: *Number and Operations; Algebra and Functions; Geometry and Measurement; Data, Statistics and Probability; Problem Solving; Representation; Reasoning; Connections and Communication*.
- Only standards for grades 9-12 were considered for these alignments. Within grades 9-12, the areas with the greatest concentration of alignments are the Number and Operations, Algebra and Geometry strands of the state standards. In most cases, Precalculus and Trigonometry were excluded from the alignment study.
- The organization and hierarchy of standards varies on a state-by-state basis. During the alignment process, the College Board aligned the PSAT/NMSQT skills to the most specific level of the state's standards.
- States often integrate process and content standards. In such cases, the state standard received an alignment to both a process skill category and a content skill category.
- Generally, there is strong correspondence between the PSAT/NMSQT Skills Categories in Mathematics and state standards. Coverage of the Skills Categories across a state standards document is dependent upon the specific state standards and on the degree of specificity of language employed within the standards.
- The PSAT/NMSQT is administered to students in grades 10 and 11; consequently, the strongest areas of alignment are in the content categories of *Number and Operations, Algebra and Functions* and *Geometry and Measurement* and in the process categories of *Problem Solving, Reasoning and Representations*. Considering the design and purpose of the PSAT/NMSQT, extensive alignments in upper levels of high school mathematics standards, including Trigonometry, are not intended or expected.

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<sup>1</sup> Using the access code printed on the PSAT/NMSQT *Roster of Student Scores and Plans*, SOAS reports can be downloaded from [www.collegeboard.com/reports](http://www.collegeboard.com/reports) beginning in the first week of January.

- The College Board content specialists who conducted the alignments have a deep understanding of the PSAT/NMSQT test specifications. Therefore, although multiple Skills Categories might link to a particular standard, these alignments display only the strongest and most appropriate matches.

## English Language Arts: Alignment Approach and Findings

- Reading and Writing each have five PSAT/NMSQT Skills Categories. In Reading, the categories are *Determining the Meaning of Words*, *Author’s Craft*, *Reasoning and Inferencing*, *Organization and Ideas* and *Understanding Literary Elements*. In Writing, the categories are *Manage Word Choice and Grammatical Relationships Between Words*, *Manage Grammatical Structures Used to Modify or Compare*, *Manage Phrases and Clauses in a Sentence*; *Recognize Correctly Formed Sentences* and *Manage Order and Relationships of Sentences and Paragraphs*.
- The PSAT/NMSQT is administered to students in grades 10 and 11, and the College Board targeted the English Language Arts alignments at these specific grade levels. In states where the standards are organized by grade band (grades 9-10, 11-12) or by one high school band (grades 9-12), the College Board aligned to all high school grade levels.
- Given the purpose and design of the PSAT/NMSQT, the English Language Arts alignment is focused on the areas of reading and writing and does not include state standards in speaking, listening, or media literacy. Additionally, these alignments excluded genre-specific state standards (such as those related to American, British, or World literature), although the essential PSAT/NMSQT skills in Reading can be used to support instruction in literature.
- The organization and hierarchy of standards varies on a state-by-state basis. During the alignment process, the College Board aligned the PSAT/NMSQT skills to the most specific level of the state’s standards. Coverage of the Skills Categories across a state standards document is dependent upon the specific state standards and on the degree of specificity of language employed within the standards.
- In Writing, generally there is strong correspondence between the PSAT/NMSQT Skills Categories and state standards that focus on grammar, usage, language conventions, and the role of editing and revising in writing.
- In Reading, there is strong correspondence between the PSAT/NMSQT Skills Categories and state standards in the essential areas of vocabulary development (determine the meaning of unfamiliar words or of words with multiple meanings by understanding context and by analyzing roots, prefixes, and suffixes) and reading comprehension (determine the main idea and supporting details; understand the organization of passages; analyze the various elements of an author’s craft, including purpose, perspective, word choice, and use of rhetorical and literary devices and understand literary elements such as plot, characterization, and setting).

## Summary

In summary, the PSAT/NMSQT Skills Categories correspond well to state standards. Educators can use these alignments to connect the PSAT/NMSQT to their local curricula and state standards to monitor student learning and to build a coherent instructional plan for their students.