



# SPS Mathematics Quick Screener

## Concept Development Map

Concept	Grade 1 (Screener 11)	Grade 2 (Screener 12)	Grade 3 (Screener 13)	Grade 4 (Screener 14)	Grade 5 (Screener 15)	Grade 6 (Screener 16)	Grade 7 (Screener 17)	Grade 8 (Screener 18)
Whole Numbers	<b>N1.3</b> Counting <b>N1.4</b> Represent and describe whole numbers to 20 <b>N1.5</b> Compare sets containing up to 20 elements <b>N1.8</b> Identify the number, up to 20, that is one more, two more, one less, and two less than a given number.	<b>N2.1</b> Understanding of whole numbers to 100	<b>N3.1</b> Understanding of whole numbers to 1000	<b>N4.1</b> Understanding whole numbers to 10 000	<b>N5.1</b> Understanding of whole numbers to 1 000 000	<b>N6.1</b> Understanding of place value greater than 1 000 000	<b>N7.3</b> Demonstrate an understanding of the relationships between positive decimals, positive fractions (including mixed numbers, proper fractions and improper fractions), and whole numbers	
Fractions			<b>N3.4</b> Understanding of fractions by naming, identifying and representing	<b>N4.6</b> Understanding of fractions less than or equal to one	<b>N5.5</b> Understanding of fractions <i>-equivalent</i>	<b>N6.7</b> Understanding of fractions to improper fractions and mixed number	<b>N7.5</b> Addition and subtraction of positive fractions and mixed numbers, with like and unlike denominators	<b>N8.4</b> Demonstrate understanding of multiplying and dividing positive fractions and mixed numbers
Decimals				<b>N4.7</b> Understanding of decimal numbers in tenths and hundredths	<b>N5.6</b> Understanding of decimals to thousandths	<b>N6.7</b> Compare decimals to thousandths	<b>N7.3</b> Multiplication and division of decimals	
Percent						<b>N6.5</b> Understanding of percent	<b>N7.4</b> Expand and demonstrate an understanding of percent	<b>N8.2</b> Expand and demonstrate understanding of percents greater than or equal to 0% (including fractional and decimal percents)
Integers						<b>N6.6</b> Understanding of integers	<b>N7.6</b> Addition and subtraction of integers	<b>N8.5</b> Demonstrate understanding of multiplication and division of integers
Ratio						<b>N6.8</b> Understanding of ratio concretely, pictorially, and symbolically		<b>N8.3</b> Demonstrate understanding of ratios
Addition	<b>N1.9</b> Addition to 20	<b>N2.2</b> Addition with sums to 100	<b>N3.2</b> Addition with sums to 1000	<b>N4.2</b> Addition with sums to 10 000 <b>N4.8</b> Addition of decimals limited to hundredths	<b>N5.7</b> Addition of decimals (limited to thousandths)	<b>N6.3</b> Demonstrate understanding of the order of operations on whole numbers	<b>N7.2</b> Addition of decimals <b>N7.5</b> Addition of positive fractions and mixed numbers, with like denominators <b>N7.6</b> Addition of integers	
Subtraction	<b>N1.9</b> Subtraction with answers less than 20	<b>N2.2</b> Subtraction with answers to 100	<b>N3.2</b> Subtraction with answers to 1000	<b>N4.2</b> Subtraction with answers to 10 000	<b>N5.7</b> Subtraction of decimals (limited to thousandths)	<b>N6.3</b> Demonstrate understanding of the order of operations on whole numbers	<b>N7.2</b> Subtraction of decimals <b>N7.5</b> Subtraction of positive fractions and mixed numbers, with like denominators <b>N7.6</b> Subtraction of integers	
Multiplication			<b>N3.3</b> Multiplication to 5 x 5	<b>N4.3</b> Multiplication to 10 x 10 <b>N4.4</b> Multiplication of 2 digit by 1 digit numbers	<b>N5.2</b> Multiplication to 10 x 10 (3 digit by 1 digit and 2 digit by 2 digit)	<b>N6.4</b> Extend understanding of multiplication and division to decimals	<b>N7.3</b> Multiplication of decimals	<b>N8.4</b> Demonstrate understanding of multiplying and dividing positive fractions and mixed numbers <b>N8.5</b> Demonstrate understanding of multiplication and division of integers
Division			<b>N3.3</b> Division to 25 ÷5	<b>N4.5</b> Division to 100 ÷10 (2 digit by 1 digit)	<b>N5.3</b> Division (3-digit by 1-digit)	<b>N6.4</b> Extend understanding of multiplication and division to decimals	<b>N7.3</b> Division of decimals	<b>N8.4</b> Demonstrate understanding of multiplying and dividing positive fractions and mixed numbers <b>N8.5</b> Demonstrate understanding of multiplication and division of integers
Patterns and Relations	<b>P1.1</b> Extend a repeating pattern (two to four elements) with pictures <b>P1.2</b> Translate repeating patterns from one form of representation to another	<b>P2.1</b> Repeating patterns (three to five elements) <b>P2.2</b> Increasing patterns	<b>P3.1</b> Decreasing patterns	<b>P4.1</b> Patterns and relations in a chart, table or diagram	<b>P5.1</b> Extend patterns using mathematical language and notation	<b>P6.1</b> Extend understanding of patterns and relationships in tables of values and graphs	<b>P7.1</b> Understanding of the relationships between patterns, and linear relations	<b>P8.1</b> Demonstrate understanding of linear relations
Equality	<b>P1.3</b> Describe equality as a balance and inequality as an imbalance, pictorially	<b>P2.3</b> Equality and inequality with an equal sign	<b>P3.2</b> Equality by solving one-step addition and subtraction equations	<b>P4.2</b> Equations involving symbols to represent an unknown value	<b>P5.2</b> Single-variable, one-step equations with whole number coefficients and whole number solutions	<b>P6.2</b> Preservation of equality <b>P6.3</b> Extend understanding of patterns and relationships by using expressions and equations involving variables	<b>P7.2</b> Understanding of equations and expressions <b>P7.3</b> Demonstrate an understanding of one- & two-step linear equations	<b>P8.2</b> Model and solve problems using linear equations
Relationship between Geometry, Measurement, & the World						<b>SS6.4</b> Understanding of the first quadrant of the Cartesian plane and ordered pairs with whole number coordinates	<b>SS7.4</b> Cartesian plane and ordered pairs with integral coordinates	<b>SS8.2</b> Demonstrate understanding of the surface area of 3-D objects limited to right prisms and cylinders