SASKATCHEWAN KINDERGARTEN, GRADE 1 & 2 MATHEMATICS AT A GLANCE

Mathematical Processes

C = Communication **CN = Connections** **ME = Mental Mathematics and Estimation**
PS = Problem Solving **R = Reasoning** **V = Visualization** **T = Technology**

NUMBER STRAND OUTCOMES

Kindergarten (2007)	Grade 1 (2007)	Grade 2 (2008)
WHOLE NUMBERS		
NK.1 Say the whole number sequence by 1s starting anywhere from 0 to 10 and from 10 to 0. **C CN V**	**N1.1** Say the number sequence, 0 to 100, by: • 1s forward and backward between any two given numbers • 2s to 20, forward starting at 0 • 5s and 10s to 100, forward starting at 0. **C CN ME V**	**N2.1** Demonstrate understanding of whole numbers to 100 (concretely, pictorially, physically, orally, in writing, and symbolically) by: • representing (including place value) • describing • skip counting • differentiating between odd and even numbers • estimating with referents • comparing two numbers • ordering three or more numbers. **C CN ME PS R V**
NK.2 Recognize, at a glance, and name familiar arrangements of 1 to 5 objects, dots or pictures. **C CN ME V**	**N1.2** Recognize, at a glance, and name familiar arrangements of 1 to 10 objects, dots, and pictures. **C CN ME V**	
NK.3 Relate a numeral, 0 to 10, to its respective quantity. **C R V**	**N1.3** Demonstrate an understanding of counting by: • indicating that the last number said identifies "how many" • showing that any set has only one count using the counting on strategy • using parts or equal groups to count sets. **C CN ME R V**	
NK.4 Represent the partitioning of whole numbers (1 to 10) concretely and pictorially. **C CN ME R V**	**N1.4** Represent and describe whole numbers to 20 concretely, pictorially and symbolically. **C CN V**	
NK.5 Compare quantities, 0 to 10, using one-to-one correspondence. **C CN V**	**N1.5** Compare sets containing up to 20 elements to solve problems using: • referents (known quantity) • one-to-one correspondence. **C CN ME PS R V**	
	N1.6 Estimate quantities to 20 by using referents. **C ME PS R V**	
	N1.7 Demonstrate, concretely, physically, and pictorially, how whole numbers can be represented by a variety of equal groupings with and without singles. **C R V**	
	N1.8 Identify the number, up to 20, that is one more, two more, one less and two less than a given number. **C CN ME R V**	

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NUMBER STRAND OUTCOMES (cont.)

Kindergarten (2007)	Grade 1 (2007)	Grade 2 (2008)
ADDING AND SUBTRACTING WHOLE NUMBERS		
	N1.9 Demonstrate an understanding of addition of numbers with answers to 20 and the corresponding subtraction facts, concretely, pictorially, physically and symbolically by: • using familiar and mathematical language to describe additive and subtractive actions from their experience • creating and solving problems in context that involve addition and subtraction • modelling addition and subtraction using a variety of concrete and visual representations, and recording the process symbolically. **C CN ME PS R V**	**N2.2** Demonstrate understanding of addition (limited to 1 and 2-digit numerals) with answers to 100 and the corresponding subtraction by: • representing strategies for adding and subtracting concretely, pictorially and symbolically • creating and solving problems involving addition and subtraction • estimating • using personal strategies for adding and subtracting with and without the support of manipulatives • analyzing the effect of adding or subtracting zero • analyzing the effect of the ordering of the quantities (addends, minuends, and subtrahends) in addition and subtraction statements. **C CN ME PS R V**
	N1.10 Describe and use mental mathematics strategies (memorization not intended), such as: • counting on and counting back • making 10 • doubles • using addition to subtract to determine basic addition facts to 18 and related subtraction facts. **C CN ME PS R V**	

STATISTICS AND PROBABILITY STRAND OUTCOMES

Kindergarten (2007)	Grade 1 (2007)	Grade 2 (2008)
COLLECTING AND REPRESENTING DATA		
		SP2.1 Demonstrate understanding of concrete graphs and pictographs. **C CN PS R V**

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PATTERNS AND RELATIONS STRAND OUTCOMES

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REPEATING PATTERNS		
PK.1 Demonstrate an understanding of repeating pattern (two or three elements) by: • identifying • extending • reproducing • creating patterns, using manipulatives, sounds, and actions. **C CN PS V**	**P1.1** Demonstrate an understanding of repeating patterns (two to four elements), by: • describing • extending • reproducing • creating patterns using manipulatives, diagrams, sounds and actions. **C PS R V**	**P2.1** Demonstrate understanding of repeating patterns (three to five elements) by: • describing • representing in alternate modes • extending • comparing patterns using manipulatives, diagrams, sounds and actions. **C CN PS R V**
	P1.2 Translate repeating patterns from one form of representation to another. **C R V**	
INCREASING PATTERNS		
		P2.2 Demonstrate understanding of increasing patterns by: • describing • reproducing • extending • creating patterns using manipulatives, diagrams, sounds and actions (numbers to 100). **C CN PS R V**
EQUALITY AND INEQUALITY		
	P1.3 Describe equality as a balance and inequality as an imbalance, concretely, physically, and pictorially (0 to 20). **C CN R V**	**P2.3** Demonstrate understanding of equality and inequality concretely and pictorially (0 to 100) by: • relating equality and inequality to balance • comparing sets • recording equalities with an equal sign • recording inequalities with a not equal sign • solving problems involving equality and inequality. **C CN R V**
	P1.4 Record equalities using the equal symbol. **C CN PS V**	

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SHAPE AND SPACE STRAND OUTCOMES

Kindergarten (2007)	Grade 1 (2007)	Grade 2 (2008)
DIRECT AND INDIRECT COMPARISON		
SSK.1 Use direct comparison to compare two objects based on a single attribute, such as: • length including height • mass • volume • capacity. **C CN PS R V**	**SS1.1** Demonstrate an understanding of measurement as a process of comparing by: • identifying attributes that can be compared • ordering objects • making statements of comparison • filling, covering or matching. **C CN PS R V**	
		SS2.1 Demonstrate understanding of non-standard units for linear measurement by: • describing the choice and appropriate use of non-standard units • estimating • measuring • comparing and analyzing measurements. **C CN ME R V**
		SS2.2 Demonstrate understanding of non-standard units for measurement of mass by: • describing the choice and appropriate use of non-standard units • estimating • measuring • comparing and analyzing measurements. **C CN ME R V**
3-D OBJECTS AND 2-D SHAPES		
SSK.2 Sort 3-D objects using a single attribute. **C CN PS R V**	**SS1.2** Sort 3-D objects and 2-D shapes using one attribute, and explain the sorting rule. **C CN R V**	
SSK.3 Build and describe 3-D objects. **C PS V**	**SS1.3** Replicate composite 2-D shapes and 3-D objects. **CN PS V**	**SS2.3** Describe, compare, and construct 3-D objects, including: cubes, spheres, cones, cylinders, pyramids. **C CN R V**
		SS2.4 Describe, compare, and construct 2-D shapes, including: triangles, squares, rectangles, circles. **C CN R V**
	SS1.4 Compare 2-D shapes to parts of 3-D objects in the environment. **C CN V**	**SS2.5** Demonstrate understanding of the relationship between 2-D shapes and 3-D objects. **C CN R V**