SASKATCHEWAN GRADE 1, 2 & 3 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

Grade 1 (2007)	Grade 2 (2008)	Grade 3 (2009)
WHOLE NUMBERS		
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**		
N1.2 Recognize, at a glance, and name familiar arrangements of 1 to 10 objects, dots, and pictures. **C CN ME 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**		
N1.4 Represent and describe whole numbers to 20 concretely, pictorially and symbolically. **C CN ME R 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**	**N3.1** Demonstrate understanding of whole numbers to 1000 (concretely, pictorially, physically, orally, in writing, and symbolically) including: • representing (including place value) • describing • estimating with referents • comparing two numbers • ordering three or more numbers. **C R 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.)

Grade 1 (2007)	Grade 2 (2008)	Grade 3 (2009)
OPERATIONS WITH 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**	**N3.2** Demonstrate understanding of addition of whole numbers with answers to 1000 and their corresponding subtractions (limited to 1, 2, and 3-digit numerals) including: • representing strategies for adding and subtracting concretely, pictorially, and symbolically • solving situational questions involving addition and subtraction • estimating using personal strategies for adding and subtracting **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 & related subtraction facts. **C CN ME PS R V**		
		N3.3 Demonstrate understanding of multiplication to 5 × 5 and the corresponding division statements including: • representing and explaining using repeated addition or subtraction, equal grouping, and arrays • creating and solving situational questions • modelling processes using concrete, physical, and visual representations, and recording the process symbolically • relating multiplication and division. **C CN PS R**
FRACTIONS		
		N3.4 Demonstrate understanding of fractions concretely, pictorially, physically, and orally including: • representing • observing and describing situations • comparing • relating to quantity. • **C CN R**

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STATISTICS AND PROBABILITY STRAND OUTCOMES

Grade 1 (2007)	Grade 2 (2008)	Grade 3 (2009)
COLLECTING AND REPRESENTING DATA		
	SP2.1 Demonstrate understanding of concrete graphs and pictographs. **C CN PS R V**	**SP3.1** Demonstrate understanding of first-hand data, using tally marks, charts, lists, bar graphs, and line plots (abstract pictographs), through: • collecting, organizing, representing • solving situational questions. **C CN PS R V**

PATTERNS AND RELATIONS STRAND OUTCOMES

Grade 1 (2007)	Grade 2 (2008)	Grade 3 (2009)
REPEATING PATTERNS		
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** **P1.2** Translate repeating patterns from one form of representation to another. **C R V**	**P2.1** Demonstrate understanding of repeating patterns (three to five elements), by: • describing • representing patterns in alternate modes • extending • comparing patterns using manipulatives, diagrams, sounds and actions. **C CN PS R V**	
INCREASING AND DECREASING 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**	**P3.1** Demonstrate understanding of increasing and decreasing patterns including: • observing and describing • extending • comparing • creating patterns using manipulatives, pictures, sounds and actions. **C CN PS R V** *NOTE: It is intended that decreasing patterns will not go past zero*
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** **P1.4** Record equalities using the equal symbol. **C CN PS 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**	**P3.2** Demonstrate understanding of equality by solving one-step addition and subtraction equations involving symbols representing an unknown quantity. **C CN ME R**

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SHAPE AND SPACE STRAND OUTCOMES

Grade 1 (2007)	Grade 2 (2008)	Grade 3 (2009)
TIME		
		SS3.1 Demonstrate understanding of the passage of time including: • relating common activities to standard and non-standard units • describing relationships between units • solving situational questions. **C CN PS R**
MASS, LENGTH AND PERIMETER		
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**	**SS2.2** 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**	**SS3.2** Demonstrate understanding of measuring mass in g and kg by: • selecting and justifying referents for g and kg • modelling and describing the relationship between g and kg • estimating mass using referents • measuring and recording mass. **C CN ME R**
	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**	**SS3.3** Demonstrate an understanding of linear measurement (cm and m) including: • selecting and justifying referents • generalizing relationship between cm and m • estimating length and perimeter using referents • measuring and recording length, width, height, and perimeter **C CN ME PS R V**
3-D OBJECTS AND 2-D SHAPES		
SS1.2 Sort 3-D objects and 2-D shapes using one attribute, & explain the sorting rule. **C CN R 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**	**SS3.4** Demonstrate understanding of 3-D objects by analyzing characteristics including faces, edges, and vertices. **C V**
	SS2.4 Describe, compare, and construct 2-D shapes, including: triangles, squares, rectangles, circles. **C CN R V**	**SS3.5** Demonstrate understanding of 2-D shapes (regular and irregular) including triangles, quadrilaterals, pentagons, hexagons, and octagons including: • describing • comparing • sorting. **C CN R**
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**	