Adaptations to *The Common Curriculum Framework for K–9 Mathematics* as Reflected in the Alberta Mathematics K–9 Program of Studies (2007)

INTENT

The content of the Alberta Mathematics K–9 Program of Studies (2007) is based on the content in *The Common Curriculum Framework for K–9 Mathematics: Western and Northern Canadian Protocol*, May 2006 (the WNCP CCF). In developing the Alberta program, a review of this content was completed and some changes were made. This document identifies these changes and in so doing identifies the differences between the WNCP CCF and the Alberta Mathematics K–9 Program of Studies.

MATHEMATICAL PROCESSES

Technology section – the following statement was removed.

While technology can be used in K–3 to enrich learning, it is expected that students will meet all outcomes without the use of technology.

NATURE OF MATHEMATICS

Number Sense section – the following statements were added.

Mastery of number facts is expected to be attained by students as they develop their number sense. This mastery allows for facility with more complex computations but should not be attained at the expense of an understanding of number.

GENERAL OUTCOMES

Patterns and Relations (Patterns)

Use patterns to describe the world and solve problems was changed to *use patterns to describe the world and **to** solve problems*.

Shape and Space (Measurement)

*Use direct **or** indirect measurement to solve problems* was changed to *use direct **and** indirect measurement to solve problems.*

SPECIFIC OUTCOMES

Kindergarten		
Number	SO2.	Addition of the term *subitize.*
Patterns and Relations (Patterns)	SO2.	Addition of this outcome: *Sort a set of objects based on a single attribute, and explain the sorting rule.*
Grade 1		
Number	SO1.	Replaced this bullet: • *1s forward and backward between any two given numbers* With the bullets: • *1s forward between any two given numbers* • *1s backward from 20 to 0*
	SO2.	Addition of the term *subitize*
	SO7.	Replaced this outcome: *Demonstrate, concretely and pictorially, how a given number can be represented by a variety of equal groups with and without singles.* With the outcome: *Demonstrate an understanding of conservation of number.*
Patterns and Relations (Patterns)	SO3.	Addition of this outcome: *Sort objects, using one attribute, and explain the sorting rule.*
Grade 2		
Number	SO9.	Addition of the term *commutative property of addition* to the descriptor of the property in the third bullet. Addition of the following bullet: *Using the associative property of addition (grouping a set of numbers in different ways does not affect the sum).*

Patterns and Relations (Patterns)	SO3.	Addition of this outcome: *Sort a set of objects, using two attributes, and explain the sorting rule.*
Grade 3		
Patterns and Relations (Patterns)	SO3.	Addition of this outcome: *Sort objects or numbers, using one or more than one attribute*.
Grade 4		
Number	SO6.	Addition of the bullet *applying the distributive property*.
	SO11.	Replaced the bullet *using compatible numbers* with *using personal strategies to determine sums and differences.*
Patterns and Relations (Patterns)	SO2.	Replaced this outcome: *Reproduce a pattern shown in a table or chart using concrete materials.* With the outcome: *Translate among different representations of a pattern, such as a table, a chart or concrete materials.*
	SO3.	Replaced *represent and describe patterns* with *represent, describe and extend patterns*.
Shape and Space (Transformations)	SO5.	Addition of this outcome: *Demonstrate an understanding of congruency, concretely and pictorially.*
Grade 5		
Number	SO3.	Replaced *to determine answers for basic multiplication facts* with *to determine, with fluency, answers for basic multiplication facts*.
	SO5.	Replaced *demonstrate an understanding of multiplication* with *demonstrate, with and without concrete materials, an understanding of multiplication.*

Patterns and Relations (Variables and Equations)	SO2.	Addition of this outcome: *Express a given problem as an equation in which a letter variable is used to represent an unknown number (limited to whole numbers).*
Shape and Space (Measurement)	SO1.	Addition of this outcome: *Identify 90° angles.*
Grade 6		
Number	SO2.	Replaced this outcome: *Solve problems involving large numbers, using technology.* With the outcome: *Solve problems involving whole numbers and decimal numbers*.
Patterns and Relations (Variables and Equations)	SO4. SO5.	Addition of this outcome: *Express a given problem as an equation in which a letter variable is used to represent an unknown number.* Replaced *demonstrate and explain … concretely, pictorially and symbolically* with *demonstrate and explain … concretely and pictorially.*
Grade 7		
	No changes.	
Grade 8		
Number	SO3.	Replaced *percents greater than or equal to 0%* with *percents greater than or equal to 0%, including greater than 100%.*
Shape and Space (Transformations)	SO6.	Removed the tessellation outcome and added the following outcome: *Demonstrate an understanding of the congruence of polygons.*
Statistics and Probability (Data Analysis)	SO1.	Addition of specific ways in which data is presented: *in circle graphs, line graphs, bar graphs and pictographs*.

Grade 9	
Number	SO2. The following bullets were moved from the achievement indicators to the specific outcome: • $(a^m)(a^n) = a^{m+n}$ • $a^m \div a^n = a^{m-n}, m > n$ • $(a^m)^n = a^{mn}$ • $(ab)^m = a^m b^m$ • $\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}, b \neq 0.$