

Aligning *Equals Math* with the Alberta Program of Studies



Grade 2

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
Number	
Counting	
<p>N1. Say the number sequence 0 to 100 by:</p> <ul style="list-style-type: none"> • 2s, 5s and 10s, forward and backward, using starting points that are multiples of 2, 5 and 10 respectively • 10s, using starting points from 1 to 9 • 2s, starting from 1. 	<p>Emerging:</p> <p>2.C.1 count to 10 (R) 3.A.2 locate numbers 1–10 on number line (R) 3.A.3 place numbers 1–10 in order (R) 3.A.4 identify relative position of numbers 1–10 (R) 4.B.3 count backwards from any number 1–10 4.C.6 count 1–20 (R) 5.A.1 identify numerals 11–15 (R) 5.A.5 identify numerals 16–20 5.C.2 locate numbers 11–20 on number line 5.C.3 count backwards from any number 11–20 5.C.4 place numbers 11–20 in order</p> <p>Introductory:</p> <p>6.B.3 count 1–50 (R) 6.B.4 skip count by tens to 100 6.B.7 use number patterns to locate 21–50 on a hundreds chart (R) 6.B.8 identify numerals 21–50 (R) 7.D.1 count 1–100 (R)</p> <p>Basic:</p> <p>7.D.4 use number patterns to locate numbers 51–100 on hundreds chart (R) 7.D.5 identify numbers 51–99</p>

(R) = Repeated activity at one or more grade level alignments.

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
Number (continued)	
Representing	
<p>N2. Demonstrate if a number (up to 100) is even or odd.</p>	<p>Emerging: 2.A.4 count to 5 (R) 2.C.1 count to 10 (R) 4.C.6 count 1–20 (R)</p> <p>Introductory: 6.B.7 use number patterns to locate 21–50 on a hundreds chart (R) 6.B.8 identify numerals 21–50 (R) 7.D.1 count 1–100 (R)</p> <p>Basic: 7.D.4 use number patterns to locate numbers 51–100 on hundreds chart (R) 8.D.5 identify odd and even numbers</p>
<p>N3. Describe order or relative position, using ordinal numbers (up to tenth).</p>	<p>Emerging: 2.A.4 count to 5 (R) 2.C.1 count to 10 (R)</p> <p>Introductory: 3.A.2 locate numbers 1–10 on number line (R) 3.A.3 place numbers 1–10 in order (R) 3.A.4 identify relative position of numbers 1–10 (R)</p> <p>Basic: 3.A.1 use ordinal numbers from first to sixth</p>
<p>N4. Represent and describe numbers to 100, concretely, pictorially and symbolically.</p>	<p>Emerging: 2.A.3 identify amounts of 1 and 2 2.A.6 construct a set to match 1 and 2 2.A.7 write numerals 1 and 2 to match sets 2.B.3 identify sets of 3 and 4 2.B.4 construct a set to match 3 and 4 2.B.5 write numerals 3 and 4 to match sets 2.C.2 identify numerals 5 and 6 to match sets 2.C.3 identify sets of 5 and 6 2.C.4 construct a set to match 5 and 6 2.C.5 write numerals 5 and 6 to match sets 2.E.1 identify sets of 7 and 8 2.E.3 write numerals 7 and 8 to match sets 2.E.4 identify sets of 9 and 10 2.E.5 construct a set to match numerals 9 and 10 2.E.6 write numerals 9 and 10 to match sets</p>

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
Number (continued)	
Representing (continued)	
	<p>Introductory:</p> <p>2.D.1 demonstrate understanding of the concept of 0</p> <p>2.E.7 identify number words one through five</p> <p>3.A.6 identify number words six through ten</p> <p>5.A.2 identify sets of 11–15</p> <p>5.A.3 construct a set to match 11–15</p> <p>5.A.4 write numerals 11–15 to match sets</p> <p>5.A.6 identify sets of 16–20</p> <p>5.A.7 construct a set to match 16–20</p> <p>5.A.8 write numerals 16–20 to match sets</p> <p>Basic:</p> <p>7.D.2 group objects to build numbers to 100</p> <p>8.A.2 identify 3-digit numbers</p> <p>8.A.6 make 100 using multiples of 10</p> <p><i>Activities that are beyond the scope of the Alberta Program of Studies, but can be used to support the related outcome</i></p> <p>2.D.2 write 0</p> <p>6.B.9 write numerals 21–50</p> <p>7.D.6 write numbers 51–99</p> <p>8.A.3 write 3-digit numbers</p>
<p>N7. Illustrate, concretely and pictorially, the meaning of place value for numerals to 100.</p>	<p>Emerging:</p> <p>3.A.3 place numbers 1–10 in order (R)</p> <p>5.A.1 identify numerals 11–15 (R)</p> <p>5.A.5 identify numerals 16–20 (R)</p> <p>Introductory:</p> <p>6.B.5 count and groups objects into tens and ones</p> <p>Basic:</p> <p>6.B.6 demonstrate understanding of place value to 50</p> <p>7.D.3 demonstrate understanding of place value from 51–99</p> <p>8.A.1 demonstrate understanding of place value to 100 (R)</p>

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
Number (continued)	
Comparing	
<p>N5. Compare and order numbers up to 100.</p>	<p>Emerging: 2.B.1 demonstrate 1:1 correspondence 2.D.3 identify a set that is more (R) 2.D.4 identify 2 sets that are equal (R) 2.D.5 identify a set with less (R) 2.D.6 join and separate sets (R) 3.A.5 compare numbers 1–10 (R)</p> <p>Introductory: 5.C.1 compare quantities 11–20 (R) 6.B.1 compare sets 11–20 using words: greater, fewer, most and least</p> <p>Basic: 8.A.1 demonstrate understanding of place value to 100 (R)</p>
Estimating	
<p>N6. Estimate quantities to 100, using referents.</p>	<p>Emerging: 3.A.5 compare numbers 1–10</p> <p>Introductory: 5.C.1 compare quantities 11–20 6.B.2 order quantities from most to least, least to most</p> <p>Basic: 7.D.9 estimate number to represent familiar sets with 1- and 2-digit numbers</p>
Adding and Subtracting	
<p>N8. Demonstrate and explain the effect of adding zero to, or subtracting zero from, any number.</p>	<p>Emerging: No related activities identified.</p> <p>Introductory: 2.D.1 demonstrate understanding of the concept of 0</p> <p>Basic: No related activities identified.</p> <p><i>Activities that are beyond the scope of the Alberta Program of Studies, but can be used to support the related outcome</i> 2.D.2 write 0</p>

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
Number (continued)	
Adding and Subtracting (continued)	
<p>N9. Demonstrate an understanding of addition (limited to 1- and 2-digit numerals) with answers to 100 and the corresponding subtraction by:</p> <ul style="list-style-type: none"> • using personal strategies for adding and subtracting with and without the support of manipulatives • creating and solving problems that involve addition and subtraction • using the commutative property of addition (the order in which numbers are added does not affect the sum) • using the associative property of addition (grouping a set of numbers in different ways does not affect the sum) • explaining that the order in which numbers are subtracted may affect the difference. 	<p>Emerging:</p> <p>4.A.3 compose and decompose sets of 2–4</p> <p>4.A.4 compose and decompose sets of 5–6</p> <p>4.A.5 compose and decompose sets of 7–8</p> <p>4.A.6 compose and decompose sets of 9</p> <p>4.A.7 compose and decompose sets of 10</p> <p>Introductory:</p> <p>4.B.1 solve addition problems to sums of 5</p> <p>4.B.4 solve subtraction problems with corresponding sums of 5</p> <p>4.B.6 solve addition problems with sums 6–9</p> <p>4.B.7 solve subtraction problems with corresponding sums 6–9</p> <p>4.B.8 solve addition and subtraction problems with sums to 10</p> <p>4.C.2 write addition and subtraction equations</p> <p>7.A.3 choose method to solve addition problems to sums 11–15 (R)</p> <p>7.A.4 choose method to solve subtraction problems to corresponding sums 11–15 (R)</p> <p>7.A.5 choose method to solve addition problems to sums 16–20 (R)</p> <p>7.A.6 choose method to solve subtraction problems to corresponding sums 16–20 (R)</p> <p>7.B.1 use addition to solve word problems joining two groups</p> <p>7.B.2 use subtraction to solve word problems with removal</p> <p>7.B.3 use subtraction to solve word problems with comparison</p> <p>7.B.4 use subtraction to solve word problems with missing part of a set</p> <p>7.B.5 choose correct operation to solve simple word problem</p> <p>7.C.3 add single digit numbers</p> <p>Basic:</p> <p>7.A.1 identify ten more than a given number 20–50</p> <p>7.A.2 identify ten less than a given number 20–50</p> <p>7.B.6 demonstrate commutative property of addition</p>

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
Number (continued)	
Adding and Subtracting (continued)	
	<p>7.C.4 demonstrate associative property of addition</p> <p>7.D.7 identify ten more than given number 51–99</p> <p>7.D.8 identify ten less than given number 51–99</p> <p>8.A.4 add and subtract 10 from 2-digit number</p> <p>8.A.8 add and subtract 2-digit numbers, no re-grouping</p> <p>8.B.6 add and subtract 2-digit numbers, with re-grouping</p> <p><i>Activities that are beyond the scope of the Alberta Program of Studies, but can be used to support the related outcome</i></p> <p>7.C.5 use a calculator to add 3 single-digit numbers</p>

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Number (continued)	
Mental Math	
<p>N10. Apply mental mathematics strategies, such as:</p> <ul style="list-style-type: none"> • using doubles • making 10 • one more, one less • two more, two less • building on a known double • thinking addition for subtraction for basic addition facts and related subtraction facts to 18. 	<p>Emerging:</p> <p>2.D.3 identify a set that is more 2.D.4 identify 2 sets that are equal 2.D.5 identify a set with less 2.D.6 join and separate sets</p> <p>Introductory:</p> <p>3.A.7 state one more than given number, 1–10 3.A.8 state one less than given number, 1–10 4.B.2 solve addition problems with counting on, number line 4.B.5 solve subtraction problems with counting back, number line 4.C.1 find missing addend to make 10 4.C.4 use doubles to solve subtraction problems with corresponding sums 2–10 4.C.5 use learned strategies to solve simple word problems</p> <p>Basic:</p> <p>5.C.5 state one more than given number, 11–20 5.C.6 state one less than given number, 11–20 7.A.3 choose method to solve addition problems to sums 11–15 (R) 7.A.4 choose method to solve subtraction problems to corresponding sums 11–15 (R) 7.A.5 choose method to solve addition problems to sums 16–20 (R) 7.A.6 choose method to solve subtraction problems to corresponding sums 16–20 (R) 7.C.1 identify and solve doubles addition problems to sums 11–18 7.C.2 solve subtraction problems with corresponding sums 11–18 using doubles</p> <p><i>Activities that are beyond the scope of the Alberta Program of Studies, but can be used to support the related outcome</i></p> <p>4.C.3 use a calculator to add and subtract sums to 10</p>

Grade 2

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
Patterns and Relations	
Repeating Patterns	
<p>PR1. Demonstrate an understanding of repeating patterns (three to five elements) by:</p> <ul style="list-style-type: none"> • describing • extending • comparing • creating <p>patterns using manipulatives, diagrams, sounds and actions.</p>	<p>Emerging: No related activities identified.</p> <p>Introductory: 3.B.1 match AB patterns 3.B.2 duplicate AB patterns 3.B.3 extend AB patterns 3.B.4 describe AB patterns 3.B.5 record AB patterns 3.B.6 count units in a pattern 8.D.1 duplicate ABB pattern 8.D.2 extend ABB pattern 8.D.6 determine missing unit in pattern</p> <p>Basic: 3.B.7 compare equivalent patterns</p>
Increasing Patterns	
<p>PR2. Demonstrate an understanding of increasing patterns by:</p> <ul style="list-style-type: none"> • describing • reproducing • extending • creating <p>numerical (numbers to 100) and non-numerical patterns using manipulatives, diagrams, sounds and actions.</p>	<p>Emerging: No related activities identified.</p> <p>Introductory: No related activities identified.</p> <p>Basic: 8.D.7 determine missing unit in number pattern</p>
Sorting	
<p>PR3. Sort a set of objects, using two attributes, and explain the sorting rule.</p>	<p>Emerging: No related activities identified.</p> <p>Introductory: 1.C.1 match objects to duplicates 1.C.2 match objects by colour 1.C.3 sort objects by colour 1.C.6 sort objects by size 1.C.7 find objects that share 1 attribute</p> <p>Basic: No related activities identified.</p> <p><i>Activities that are beyond the scope of the Alberta Program of Studies, but can be used to support the related outcome 1.C.4 identify primary colours 1.C.5 identify secondary colours</i></p>

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
Patterns and Relations (continued)	
Equality	
PR4. Demonstrate and explain the meaning of equality and inequality, concretely and pictorially.	<p>Emerging: No related activities identified.</p> <p>Introductory: 9.A.1 use a balance scale to demonstrate equal (R)</p> <p>Basic: No related activities identified.</p>
PR5. Record equalities and inequalities symbolically, using the equal symbol or the not equal symbol.	<p>Emerging: No related activities identified.</p> <p>Introductory: 9.A.1 use a balance scale to demonstrate equal (R)</p> <p>Basic: No related activities identified.</p>

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Grade 2

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
Shape and Space	
Calendar	
<p>SS1. Relate the number of days to a week and the number of months to a year in a problem-solving context.</p>	<p>Emerging: No related activities identified.</p> <p>Introductory: 1.D.7 anticipate special event on calendar</p> <p>Basic: 3.C.1 name days of the week 3.C.2 find days of the week on calendar 3.C.3 name months 3.C.4 find a given date on a calendar 3.C.5 use calendar to count days to event</p> <p><i>Activities that are beyond the scope of the Alberta Program of Studies, but can be used to support the related outcome</i> 1.D.8 identify 4 seasons 1.D.9 match appropriate clothing to temperature 3.C.6 identify 4 seasons given name of month</p>
Measurement	
<p>SS2. Relate the size of a unit of measure to the number of units (limited to nonstandard units) used to measure length and mass (weight).</p>	<p>Emerging: 3.D.1 use words same and different to describe attributes (R) 6.C.1 identify common elements between measurement tools (R) 6.C.2 identify measurement tools (R)</p> <p>Introductory: 6.C.3 match measurement attributes to tools (R) 6.C.4 match measurement tools to everyday situations (R)</p> <p>Basic: No related activities identified.</p>

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
Shape and Space (continued)	
Measurement (continued)	
<p>SS3. Compare and order objects by length, height, distance around and mass (weight), using nonstandard units, and make statements of comparison.</p>	<p>Emerging: 3.D.1 use words same and different to describe attributes (R) 6.C.1 identify common elements between measurement tools (R) 6.C.2 identify measurement tools (R)</p> <p>Introductory: 6.C.3 match measurement attributes to tools (R) 6.C.4 match measurement tools to everyday situations (R)</p> <p>Basic: 6.C.5 compare measurement attributes</p>
<p>SS4. Measure length to the nearest nonstandard unit by:</p> <ul style="list-style-type: none"> • using multiple copies of a unit • using a single copy of a unit (iteration process). 	<p>Emerging: 3.D.1 use words same and different to describe attributes (R) 6.C.1 identify common elements between measurement tools (R) 6.C.2 identify measurement tools (R)</p> <p>Introductory: 6.C.3 match measurement attributes to tools (R) 6.C.4 match measurement tools to everyday situations (R)</p> <p>Basic: 9.A.4 identify length with lines and pictured ruler</p>
<p>SS5. Demonstrate that changing the orientation of an object does not alter the measurements of its attributes.</p>	<p>Emerging: No related activities identified.</p> <p>Introductory: No related activities identified.</p> <p>Basic: No related activities identified.</p>

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
Shape and Space (continued)	
Sorting	
<p>SS6. Sort 2-D shapes and 3-D objects, using two attributes, and explain the sorting rule.</p>	<p>Emerging: 1.D.1 match two-dimensional shapes 1.D.2 sort duplicate two-dimensional shapes 1.D.5 identify two-dimensional shapes</p> <p>Introductory: 1.D.3 sort similar two-dimensional shapes 1.D.4 choose one attribute to sort shapes</p> <p>Basic: 5.D.1 identify a line, side, angle, and vertex</p>
2-D Shapes and 3-D Objects	
<p>SS7. Describe, compare and construct 3-D objects, including:</p> <ul style="list-style-type: none"> • cubes • spheres • cones • cylinders • pyramids. 	<p>Emerging: No related activities identified.</p> <p>Introductory: 9.B.1 match two-dimensional shape to three-dimensional face</p> <p>Basic: 9.D.1 identify three-dimensional faces, vertices, and edges 9.D.2 count three-dimensional faces, vertices, and angles 9.D.3 use a table to organize three-dimensional shapes 5.D.6 identify three-dimensional shapes</p>
<p>SS8. Describe, compare and construct 2-D shapes, including:</p> <ul style="list-style-type: none"> • triangles • squares • rectangles • circles. 	<p>Emerging: No related activities identified.</p> <p>Introductory: 1.D.6 locate two-dimensional shapes in environment (R)</p> <p>Basic: 5.D.2 draw a rectangle 9.C.5 use a table to organize two-dimensional shapes</p>
<p>SS9. Identify 2-D shapes as parts of 3-D objects in the environment.</p>	<p>Emerging: No related activities identified.</p> <p>Introductory: 1.D.6 locate two-dimensional shapes in environment (R)</p> <p>Basic: 5.D.5 find and match three-dimensional shapes in the environment</p>

Grade 2

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
Statistics and Probability	
Gather and Record	
SP1. Gather and record data about self and others to answer questions. [ICT: C4–1.3, C7–1.1]	Emerging: No related activities identified. Introductory: No related activities identified. Basic: 6.A.1 choose a survey question 6.A.2 make a prediction about opinion-based data
Construct and Interpret	
SP2. Construct and interpret concrete graphs and pictographs to solve problems. [ICT: C7–1.3]	Emerging: No related activities identified. Introductory: No related activities identified. Basic: 3.D.4 construct bars in an object bar graph 3.D.5 construct pictograph bars