

# Aligning *Equals Math* with the Alberta Program of Studies

## Grade 1



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

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

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
<b>Number (continued)</b>	
<b>Counting (continued)</b>	
<p>N3. Demonstrate an understanding of counting by:</p> <ul style="list-style-type: none"> <li>• indicating that the last number said identifies “how many”</li> <li>• showing that any set has only one count</li> <li>• using the counting-on strategy</li> <li>• using parts or equal groups to count sets.</li> </ul>	<p><b>Emerging:</b></p> <p>1.A.4 choose a number song or book</p> <p>1.A.5 demonstrate understanding of cause and effect</p> <p>2.A.1 recognize that 2 is more than 1 (R)</p> <p>2.A.4 count to 5 (R)</p> <p>2.C.1 count to 10 (R)</p> <p><b>Introductory:</b></p> <p>2.A.5 identify numerals 0–5 (R)</p> <p><b>Basic:</b></p> <p>2.B.6 demonstrate cardinality of number</p> <p>6.B.5 count and groups objects into tens and ones</p>
<p>N8. Identify the number, up to 20, that is:</p> <ul style="list-style-type: none"> <li>• one more</li> <li>• two more</li> <li>• one less</li> <li>• two less than a given number.</li> </ul>	<p><b>Emerging:</b></p> <p>3.A.4 identify relative position of numbers 1–10 (R)</p> <p><b>Introductory:</b></p> <p>3.A.7 state one or more than given number, 1–10 (R)</p> <p>3.A.8 state one less than given number, 1–10 (R)</p> <p><b>Basic:</b></p> <p>5.C.5 state one more than given number, 11–20</p> <p>5.C.6: state one less than given number, 11–20</p>

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
<b>Number (continued)</b>	
<b>Subitizing</b>	
<p>N2. Subitize (recognize at a glance) and name familiar arrangements of 1 to 10 objects or dots.</p>	<p><b>Emerging:</b></p> <p>1.A.1 visually attend  1.A.2 attempt to touch or tolerate manipulatives (R)  2.A.1 recognize that 2 is more than 1 (R)  2.A.2 match sets of 1 and 2 (R)  2.B.2 match sets of 3 and 4 (R)</p> <p><b>Introductory:</b></p> <p>2.A.3 identify amounts of 1 and 2 (R)  2.A.4 count to 5 (R)  2.A.5 identify numerals 0–5 (R)  2.A.6 construct a set to match 1 and 2 (R)  2.A.7 write numerals 1 and 2 to match sets (R)  2.B.3 identify sets of 3 and 4 (R)  2.B.4 construct a set to match 3 and 4 (R)  2.B.5 write numerals 3 and 4 to match sets (R)  2.C.2 identify numerals 5 and 6 to match sets (R)  2.C.3 identify sets of 5 and 6 (R)  2.C.4 construct a set to match 5 and 6 (R)  2.C.5 write numerals 5 and 6 to match sets (R)</p> <p><b>Basic:</b></p> <p>4.A.1 identify dice patterns  4.A.2 play simple board games with dice</p>

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
<b>Number (continued)</b>	
<b>Representing</b>	
<p>N4. Represent and describe numbers to 20, concretely, pictorially and symbolically.</p>	<p><b>Emerging:</b></p> <p>1.A.2 attempt to touch or tolerate manipulatives (R)</p> <p>1.A.3 explore math manipulatives</p> <p><b>Introductory:</b></p> <p>2.A.3 identify amounts of 1 and 2 (R)</p> <p>2.A.6 construct a set to match 1 and 2 (R)</p> <p>2.A.7 write numerals 1 and 2 to match sets (R)</p> <p>2.B.3 identify sets of 3 and 4 (R)</p> <p>2.B.4 construct a set to match 3 and 4 (R)</p> <p>2.B.5 write numerals 3 and 4 to match sets (R)</p> <p>2.C.2 identify numerals 5 and 6 to match sets (R)</p> <p>2.C.3 identify sets of 5 and 6 (R)</p> <p>2.C.4 construct a set to match 5 and 6 (R)</p> <p>2.C.5 write numerals 5 and 6 to match sets (R)</p> <p>2.E.1 identify sets of 7 and 8</p> <p>2.E.3 write numerals 7 and 8 to match sets</p> <p>2.E.4 identify sets of 9 and 10</p> <p>2.E.5 construct a set to match numerals 9 and 10</p> <p>2.E.6 write numerals 9 and 10 to match sets</p> <p><b>Basic:</b></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><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.C.6 identify uses for money</p> <p>6.C.7 name coins</p> <p>6.C.8 name coin amounts</p> <p>6.C.9 combine 4 quarters to make a dollar</p>

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
<b>Number (continued)</b>	
<b>Comparing</b>	
<p>N5. Compare sets containing up to 20 elements, using:</p> <ul style="list-style-type: none"> <li>• referents</li> <li>• one-to-one correspondence to solve problems.</li> </ul>	<p><b>Emerging:</b>  2.A.2 match sets of 1 and 2 (R)  2.B.2 match sets of 3 and 4 (R)</p> <p><b>Introductory:</b>  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><b>Basic:</b>  5.C.1 compare quantities 11–20 (R)  6.B.1 compare sets 11–20 using words: greater, fewer, most and least</p>
<b>Estimating</b>	
<p>N6. Estimate quantities to 20 by using referents.</p>	<p><b>Emerging:</b>  2.A.2 match sets of 1 and 2 (R)  2.B.2 match sets of 3 and 4 (R)</p> <p><b>Introductory:</b>  3.A.5 compare numbers 1–10 (R)</p> <p><b>Basic:</b>  3.E.1 make a simple prediction about amounts in a set  5.C.1 compare quantities 11–20 (R)  6.B.2 order quantities from most to least, least to most</p>
<b>Conserving</b>	
<p>N7. Demonstrate an understanding of conservation of number.</p>	<p><b>Emerging:</b>  2.A.1 recognize that 2 is more than 1 (R)  2.A.2 match sets of 1 and 2 (R)</p> <p><b>Introductory:</b>  4.A.3 compose and decompose sets of 2–4 (R)  4.A.4 compose and decompose sets of 5–6 (R)</p> <p><b>Basic:</b>  4.A.5 compose and decompose sets of 7–8  4.A.6 compose and decompose sets of 9  4.A.7 compose and decompose sets of 10</p>

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
<b>Number (continued)</b>	
<b>Adding and Subtracting</b>	
<p>N9. Demonstrate an understanding of addition of numbers with answers to 20 and their corresponding subtraction facts, concretely, pictorially and symbolically, by:</p> <ul style="list-style-type: none"> <li>• using familiar mathematical language to describe additive and subtractive actions</li> <li>• creating and solving problems in context that involve addition and subtraction</li> <li>• modelling addition and subtraction, using a variety of concrete and visual representations, and recording the process symbolically.</li> </ul>	<p><b>Emerging:</b></p> <p>1.A.6 participate in simple problem-solving activities</p> <p><b>Introductory:</b></p> <p>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)  4.A.3 compose and decompose sets of 2–4 (R)  4.A.4 compose and decompose sets of 5–6 (R)</p> <p><b>Basic:</b></p> <p>4.B.1 solve addition problems to sums of 5  4.B.4 solve subtraction problems with corresponding sums of 5  4.B.6 solve addition problems with sums 6–9  4.B.7 solve subtraction problems with corresponding sums 6–9  4.B.8 solve addition and subtraction problems with sums to 10  4.C.2 write addition and subtraction equations  7.B.1 use addition to solve word problems joining two groups  7.B.2 use subtraction to solve word problems with removal  7.B.3 use subtraction to solve word problems with comparison  7.B.4 use subtraction to solve word problems with missing part of a set  7.B.5 choose correct operation to solve simple word problem  7.C.3 add single digit numbers</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>

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
<b>Number (continued)</b>	
<b>Mental Math</b>	
<p>N10. Describe and use mental mathematics strategies (memorization not intended), such as:</p> <ul style="list-style-type: none"> <li>• counting on and counting back</li> <li>• making 10</li> <li>• using doubles</li> <li>• thinking addition for subtraction for basic addition facts and related subtraction facts to 18.</li> </ul>	<p><b>Emerging:</b></p> <p>2.A.4 count to 5 (R) 2.C.1 count to 10 (R)</p> <p><b>Introductory:</b></p> <p>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.7 state one or more than given number, 1–10 (R) 3.A.8 state one less than given number, 1–10 (R) 4.B.3 count backwards from any number 1–10 (R) 5.C.3 count backwards from any number 11–20 (R)</p> <p><b>Basic:</b></p> <p>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 6.B.4 skip count by tens to 100 (R) 6.B.7 use number patterns to locate 21–50 on a hundreds chart (R) 7.A.3 choose method to solve addition problems to sums 11–15 7.A.4 choose method to solve subtraction problems to corresponding sums 11–15 7.A.5 choose method to solve addition problems to sums 16–20 7.A.6 choose method to solve subtraction problems to corresponding sums 16–20 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 1

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
<b>Patterns and Relations</b>	
<b>Repeating Patterns</b>	
<p>PR1. Demonstrate an understanding of repeating patterns (two to four elements) by:</p> <ul style="list-style-type: none"> <li>• describing</li> <li>• reproducing</li> <li>• extending</li> <li>• creating</li> </ul> <p>patterns using manipulatives, diagrams, sounds and actions. [ICT: P2–1.1]</p>	<p><b>Emerging:</b></p> <p>1.B.1 enjoy or tolerate clapping patterns, actions, rhymes, songs or raps</p> <p>1.B.2 attempt to imitate or join in clapping patterns, actions, rhymes, songs and raps</p> <p>1.B.3 follow routine</p> <p>1.B.4 anticipate holiday or event based on season</p> <p>1.B.5 follow as schedule is read and anticipate favourites</p> <p><b>Introductory:</b> No related activities identified.</p> <p><b>Basic:</b></p> <p>3.B.1 match AB patterns</p> <p>3.B.2 duplicate AB patterns</p> <p>3.B.3 extend AB patterns</p> <p>3.B.4 describe AB patterns</p> <p>3.B.5 record AB patterns</p> <p>3.B.6 count units in a pattern</p> <p>8.D.1 duplicate ABB pattern</p> <p>8.D.2 extend ABB pattern</p> <p>8.D.6 determine missing unit in pattern</p>
<p>PR2. Translate repeating patterns from one representation to another.</p>	<p><b>Emerging:</b> <i>No related activities identified.</i></p> <p><b>Introductory:</b> <i>No related activities identified.</i></p> <p><b>Basic:</b> <i>No related activities identified.</i></p>



Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
<b>Patterns and Relations (continued)</b>	
<b>Sorting</b>	
PR3. Sort objects, using one attribute, and explain the sorting rule.	<p><b>Emerging:</b> No related activities identified.</p> <p><b>Introductory:</b> No related activities identified.</p> <p><b>Basic:</b>            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><i>Activities that are beyond the scope of the Alberta Program of Studies, but can be used to support the related outcome</i>            1.C.4 identify primary colours            1.C.5 identify secondary colours</p>
<b>Equality</b>	
PR4. Describe equality as a balance and inequality as an imbalance, concretely and pictorially (0 to 20).	<p><b>Emerging:</b> <i>No related activities identified.</i></p> <p><b>Introductory:</b> <i>No related activities identified.</i></p> <p><b>Basic:</b> 9.A.1 use a balance scale to demonstrate equal</p>
PR5. Record equalities, using the equal symbol.	<p><b>Emerging:</b> <i>No related activities identified.</i></p> <p><b>Introductory:</b> <i>No related activities identified.</i></p> <p><b>Basic:</b> <i>No related activities identified.</i></p>

# Grade 1

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
<b>Shape and Space</b>	
<b>Measurement as Comparing</b>	
<p>SS1. Demonstrate an understanding of measurement as a process of comparing by:</p> <ul style="list-style-type: none"> <li>• identifying attributes that can be compared</li> <li>• ordering objects</li> <li>• making statements of comparison</li> <li>• filling, covering or matching.</li> </ul>	<p><b>Emerging:</b> <i>No related activities identified.</i></p> <p><b>Introductory:</b> 3.D.1 use words same and different to describe attributes 6.C.1 identify common elements between measurement tools 6.C.2 identify measurement tools</p> <p><b>Basic:</b> 6.C.3 match measurement attributes to tools 6.C.4 match measurement tools to everyday situations</p>
<b>Sorting</b>	
<p>SS2. Sort 3-D objects and 2-D shapes, using one attribute, and explain the sorting rule.</p>	<p><b>Emerging:</b> <i>No related activities identified.</i></p> <p><b>Introductory:</b> 1.D.1 match two-dimensional shapes 1.D.2 sort duplicate two-dimensional shapes 1.D.5 identify two-dimensional shapes</p> <p><b>Basic:</b> 1.D.3 sort similar two-dimensional shapes 1.D.4 choose one attribute to sort shapes</p>
<b>2-D Shapes and 3-D Objects</b>	
<p>SS3. Replicate composite 2-D shapes and 3-D objects.</p>	<p><b>Emerging:</b> <i>No related activities identified.</i></p> <p><b>Introductory:</b> <i>No related activities identified.</i></p> <p><b>Basic:</b> 5.D.4 use attribute blocks to re-create a block shape or design</p>

Alberta Program of Studies	Related activities from <i>Equals Math</i> resources
<b>Shape and Space (continued)</b>	
<b>2-D Shapes and 3-D Objects (continued)</b>	
SS4. Compare 2-D shapes to parts of 3-D objects in the environment.	<p><b>Emerging:</b> <i>No related activities identified.</i></p> <p><b>Introductory:</b> <i>No related activities identified.</i></p> <p><b>Basic:</b></p> <p>1.D.6 locate two-dimensional shapes in environment</p> <p>9.B.1 match two-dimensional shape to three-dimensional face</p>

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