

Ontario Grade 2 Curriculum	<i>Math Makes Sense 2</i> Teacher Guide	<i>Math Makes Sense 2</i> Student Book	Comments
B. Number			
B1. Number Sense			
Whole Numbers			
B1.1 read, represent, compose, and decompose whole numbers up to and including 200, using a variety of tools and strategies, and describe various ways they are used in everyday life	Additional Assessment Support, Investigation 3, pages 44-46 Unit 2, Mathematics Centres, page xiii; Launch, page 1; Lesson 1, pages 2, 3; Lesson 2, pages 4-6 Unit 7, Mathematics Centres, page ix; Launch, page 1; Lesson 1, pages 2-5; Activity Bank, page 6	Investigation 3, page 188 Unit 2, pages 29, 30, 33, 43, 44 Unit 7, pages 155, 156, 157	Reading, representing, composing, and decomposing numbers greater than 100 are not addressed. See <i>Math Makes Sense 3</i> Student Text, Unit 1, Lessons 8, 9, and 11 for numbers beyond 100.
B1.2 compare and order whole numbers up to and including 200, in various contexts	Unit 2, Mathematics Centres, page xiii; Lesson 8, pages 30-32	Unit 2, pages 43, 44	Comparing and ordering numbers greater than 100 are not addressed. See <i>Math Makes Sense 3</i> Student Text, Unit 1, Lesson 10 for numbers beyond 100.
B1.3 estimate the number of objects in collections of up to 200 and verify their estimates by counting	Unit 2, Mathematics Centres, page xiii; Lesson 2, pages 4-6; Activity Bank, page 7; Lesson 3, pages 8-10; Lesson 7, pages 26-28; Activity Bank, page 29	Unit 2, pages 31, 40-42, 50 Math at Home 1, page 3	Estimating numbers of objects greater than 100 is not addressed.

<p>B1.4 count to 200, including by 20s, 25s, and 50s, using a variety of tools and strategies</p>	<p>Additional Assessment Support, Investigation 2, pages 38-40</p> <p>Unit 2, Mathematics Centres, page xiii; Lesson 2, pages 4-6; Lesson 3, pages 8-10; Lesson 9, pages 33-36; Activity Bank, page 37</p> <p>Unit 10, Launch, page 1</p>	<p>Investigation 2, page 85</p> <p>Unit 2, pages 29, 32, 42, 47-49</p> <p>Unit 10, page 237</p>	<p>Counting by 20s and 50s is not addressed.</p>
<p>B1.5 describe what makes a number even or odd</p>	<p>Unit 2, Lesson 6, pages 21-24; Activity Bank, page 25</p> <p>Unit 5, Activity Bank, page 5</p>	<p>Unit 2, page 46</p>	
<p>Fractions</p>			
<p>B1.6 use drawings to represent, solve, and compare the results of fair-share problems that involve sharing up to 10 items among 2, 3, 4, and 6 sharers, including problems that result in whole numbers, mixed numbers, and fractional amounts</p>	<p>Additional Assessment Support, Investigation 4, pages 49-51</p> <p>Unit 10, Lesson 5, pages 17-20; Activity Bank, page 21; Lesson 6, pages 22-24; Activity Bank, page 25; Lesson 7, pages 26, 27</p>	<p>Investigation 4, page 279</p> <p>Unit 10, pages 244-248, 251</p> <p>Math at Home 3, page 8</p>	<p>Mixed numbers are not addressed.</p>
<p>B1.7 recognize that one third and two sixths of the same whole are equal, in fair sharing contexts</p>			<p>Equivalent fractions are not addressed. See <i>Math Makes Sense 4</i> Student Text, Unit 8, Lesson 5 for equivalent fractions.</p>

B2. Operations			
Properties and Relationships			
<p>B2.1 use the properties of addition and subtraction, and the relationships between addition and multiplication and between subtraction and division, to solve problems and check calculations</p>	<p>Additional Assessment Support, Investigation 2, pages 38-40</p> <p>Additional Assessment Support, Investigation 3, pages 44-46</p> <p>Unit 2, Lesson 4, 5, 6, Activity Banks, pages 11-25</p> <p>Unit 4, Lessons 1-8, Activity Banks, pages 2-33</p> <p>Unit 7, Lessons 2-7, Activity Banks, pages 7-27</p> <p>Unit 10, Mathematics Centres, page xi Launch, page 1 Lesson 1, pages 2-5; Activity Bank, page 6; Lesson 2, pages 6-9</p>	<p>Investigation 2, page 85</p> <p>Investigation 3, pages 186, 187</p> <p>Math at Home 1, page 7 Math at Home 2, pages 2, 4, 5, 6 Unit 2, pages 35-37</p> <p>Unit 4, pages 95-113</p> <p>Unit 7, pages 158-163, 165-175</p> <p>Unit 10, pages 238-243</p>	<p>Relating subtraction and division is not addressed.</p>
Math Facts			
<p>B2.2 recall and demonstrate addition facts for numbers up to 20, and related subtraction facts</p>	<p>Unit 2, Mathematics Centres, page xiii; Lesson 4, pages 11-14; Activity Bank, page 15; Lesson 5, pages 16-19; Activity Bank, page 20; Lesson 6, pages 21-24; Activity Bank, page 25</p>	<p>Unit 2, pages 34, 36, 38</p> <p>Math at Home 2, pages 4, 5</p>	<p>Addition facts for 19 and 20 are not addressed.</p>

Mental Math			
B2.3 use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 50, and explain the strategies used	Unit 4, Lesson 4, pages 13-16	Unit 2, page 39	
Addition and Subtraction			
B2.4 use objects, diagrams, and equations to represent, describe, and solve situations involving addition and subtraction of whole numbers that add up to no more than 100	<p>Unit 4, Mathematics Centres, page xi Launch, page 1 Lesson 1, pages 2-4 Lesson 2, pages 5-8 Activity Bank, page 9 Lesson 3, pages 10-12; Lesson 4, pages 13-16; Activity Bank, page 17; Lesson 5, pages 18-22; Activity Bank, page 23; Lesson 6, pages 24-28; Activity Bank, page 29; Lesson 7, pages 30, 31; Lesson 8, pages 32, 33</p> <p>Unit 7, Lesson 2, pages 7-9; Lesson 3, pages 10-13; Activity Bank, page 14; Lesson 4, pages 15-17; Lesson 5, pages 18-22; Activity Bank, page 23; Lesson 6, pages 24, 25; Lesson 7, pages 26, 27</p>	<p>Unit 2, pages 34-38, 51</p> <p>Unit 4, pages 93-113</p> <p>Unit 7, pages 158-171, 174, 175</p>	

Multiplication and Division			
B2.5 represent multiplication as repeated equal groups, including groups of one half and one fourth, and solve related problems, using various tools and drawings	Unit 10, Mathematics Centres, page xi Launch, page 1 Lesson 1, pages 2-5; Activity Bank, page 6; Lesson 2, pages 6-9	Unit 10, pages 238-241, 249	Repeated equal groups of one half and one fourth are not addressed.
B2.6 represent division of up to 12 items as the equal sharing of a quantity, and solve related problems, using various tools and drawings	Unit 10, Mathematics Centres, page xi Lesson 3, pages 10-12; Activity Bank, page 13 Lesson 4, pages 14-16	Unit 10, pages 242, 243, 250 Math at Home 3, page 8	
C. Algebra			
C1. Patterns and Relationships			
Patterns			
C1.1 identify and describe a variety of patterns involving geometric designs, including patterns found in real-life contexts	Additional Assessment Support, Investigation 1, pages 38-40 Unit 1, Lesson 2, pages 7-10; Activity Bank, page 11 Unit 9, Lesson 8, pages 26, 27	Investigation 1, pages 82, 84 Math at Home 1, page 7 Unit 9, pages 232, 233	See <i>Math Makes Sense 3</i> Student Text, Unit 10, Lesson 7 for more examples of geometric patterns.
C1.2 create and translate patterns using various representations, including shapes and numbers	Unit 1, Lesson 2, pages 7-10; Activity Bank, page 11; Lesson 3, pages 12-14; Activity Bank, page 15; Lesson 4, pages 16, 17; Lesson 5, pages 18, 19 Unit 2, Lesson 3, pages 8-10; Activity Bank, page 15; Lesson 9, pages 33-36; Activity Bank, page 37	Unit 1, pages 17-25 Unit 2, pages 33, 46, 47	

C1.3 determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in patterns represented with shapes and numbers	Unit 1, Activity Bank, page 11	Unit 1, pages 18, 22 Math at Home 1, page 2	Identifying missing elements is not addressed.
C1.4 create and describe patterns to illustrate relationships among whole numbers up to 100	Unit 2, Lesson 5, pages 16-19; Lesson 9, pages 33-36; Activity Bank, page 37 Unit 4, Lesson 3, pages 10-12; Lesson 4, pages 13-16	Unit 2, page 46 Unit 4, pages 99-103, 108, 109	
C2. Equations and Inequalities			
Variables			
C2.1 identify when symbols are being used as variables, and describe how they are being used		Unit 2, page 37	
Equalities and Inequalities			
C2.2 determine what needs to be added to or subtracted from addition and subtraction expressions to make them equivalent			Identifying missing numbers to make equivalent expressions is not addressed.
C2.3 identify and use equivalent relationships for whole numbers up to 100, in various contexts			Using equivalent relationships for whole numbers to 100 is not addressed.
C3. Coding			
Coding Skills			
C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential and concurrent events			Coding is not addressed.

C3.2 read and alter existing code, including code that involves sequential and concurrent events, and describe how changes to the code affect the outcomes			Coding is not addressed.
D. Data			
D1. Data Literacy			
Data Collection and Organization			
D1.1 sort sets of data about people or things according to two attributes, using tables and logic diagrams, including Venn and Carroll diagrams	Unit 1, Launch, page 1; Lesson 1, pages 2-5; Activity Bank, page 6 Unit 5, Mathematics Centres, page ix	Unit 1, pages 15, 16	Tables and Carroll diagrams are not addressed.
D1.2 collect data through observations, experiments, and interviews to answer questions of interest that focus on two pieces of information, and organize the data in two-way tally tables	Unit 5, Mathematics Centres, page ix; Activity Bank, page 5; Lesson 4, pages 13-15; Activity Bank, page 16; Lesson 6, pages 19, 20	Unit 5, pages 123-127, 130, 131 Unit 8, page 203	
Data Visualization			
D1.3 display sets of data, using one-to-one correspondence, in concrete graphs, pictographs, line plots, and bar graphs with proper sources, titles, and labels	Unit 5, Mathematics Centres, page ix; Activity Bank, page 5; Lesson 3, pages 8-11; Activity Bank, page 12; Lesson 4, pages 13-15; Activity Bank, page 16; Lesson 6, pages 19, 20	Unit 5, pages 123, 125, 127, 130, 131 Unit 8, page 203	Line plots are not addressed.

Data Analysis			
D1.4 identify the mode(s), if any, for various data sets presented in concrete graphs, pictographs, line plots, bar graphs, and tables, and explain what this measure indicates about the data.			The mode is not addressed.
D1.5 analyse different sets of data presented in various ways, including in logic diagrams, line plots, and bar graphs, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions	Additional Assessment Support, Investigation 3, pages 44-46 Unit 5, Mathematics Centres, page ix; Activity Bank, page 16; Lesson 5, pages 17, 18; Lesson 6, pages 19, 20	Investigation 3, pages 185, 186 Unit 5, pages 123, 125-131	
D2. Probability			
Probability			
D2.1 use mathematical language, including the terms “impossible”, “possible”, and “certain”, to describe the likelihood of complementary events happening, and use that likelihood to make predictions and informed decisions	Unit 5, Launch, page 1; Lesson 1, pages 2-4; Activity Bank, page 5	Unit 5, pages 117-122	
D2.2 make and test predictions about the likelihood that the mode(s) of a data set from one population will be the same for data collected from a different population			Making and testing predictions about the modes is not addressed.

E. Spatial Sense			
E1. Geometric and Spatial Reasoning			
Geometric Reasoning			
E1.1 sort and identify two-dimensional shapes by comparing number of sides, side lengths, angles, and number of lines of symmetry	Unit 9, Mathematics Centres, page xii; Launch, page 1; Lesson 1, pages 2- 4; Activity Bank, page 5; Lesson 2, pages 6-8; Activity Bank, page 9; Lesson 4, pages 12, 13; Lesson 5, pages 14-16; Activity Bank, page 17	Unit 9, pages 216-219, 222-227 Math at Home 3, pages 3, 6	
E1.2 compose and decompose two-dimensional shapes, and show that the area of a shape remains constant regardless of how its parts are rearranged	Unit 8, Lesson 7, pages 29-32; Activity Bank, page 33	Unit 8, pages 206, 207, 209 Math at Home 3, page 5	See <i>Math Makes Sense 3</i> Student Text, Unit 3, Lesson 6 for examples of using the same shapes to compose different larger shapes. See <i>Math Makes Sense 3</i> Student Text, Unit 9, Lesson 6 for examples of using different congruent shapes to cover the same area.
E1.3 identify congruent lengths and angles in two-dimensional shapes by mentally and physically matching them, and determine if the shapes are congruent	Unit 9, Lesson 2, pages 6-8; Activity Bank, page 9	Unit 9, page 218	

Location and Movement			
E1.4 create and interpret simple maps of familiar places			Creating and interpreting maps is not addressed.
E1.5 describe the relative positions of several objects and the movements needed to get from one object to another	Additional Assessment Support, Investigation 4, pages 49-51 Unit 9, Lesson 6, pages 18-20; Activity Bank, page 21; Lesson 7, pages 22-24; Activity Bank, page 25	Investigation 4, page 277 Unit 9, pages 228-231 Math at Home 3, page 4	
E2. Measurement			
Length			
E2.1 choose and use non-standard units appropriately to measure lengths, and describe the inverse relationships between the size of a unit and the number of units needed	Unit 8, Mathematics Centres, page xiii; Launch, page 1; Lesson 1, pages 2-5; Activity Bank, page 6	Unit 8, pages 196, 197 Math at Home 3, page 4	
E2.2 explain the relationship between centimetres and metres as units of length, and use benchmarks for these units to estimate lengths	Unit 8, Lesson 2, pages 7-10; Activity Bank, page 11; Lesson 3, pages 12-15; Activity Bank, page 16; Lesson 4, pages 17-19	Unit 8, pages 119-201	
E2.3 measure and draw lengths in centimetres and metres, using a measuring tool, and recognize the impact of starting at points other than zero	Unit 8, Lesson 2, pages 7-10; Activity Bank, page 11; Lesson 3, pages 12-15; Activity Bank, page 16; Lesson 4, pages 17-19; Lesson 5, page 22	Unit 8, pages 198-200, 202, 203	Drawing lengths in metres is not addressed.
Time			
E2.4 use units of time including seconds, minutes, hours, and non-standard units, to describe the duration of various events	Unit 3, Launch, page 1; Lesson 1, pages 2, 3; Lesson 2, pages 4, 5	Unit 3, pages 56-60 Math at Home 1, page 6	

F. Financial Literacy			
F1. Money and Finances			
Money Concepts			
F1.1 identify different ways of representing the same amount of money up to Canadian 200¢ using various combinations of coins, and up to \$200 using various combinations of \$1 and \$2 coins and \$5, \$10, \$20, \$50, and \$100 bills	Unit 3, Mathematics Centres, page ix Lesson 6, pages 17-20; Activity Bank, page 21; Lesson 7, pages 22, 23	Unit 3, pages 67-70	Representing the same amount beyond 100¢ is not addressed.