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| **Unit –Time** | **BC Big Ideas (Understand)** | **BC Curricular Competencies (Do)** | **BC Content (Know)** | **Instructional Strategies/ Learning Activities** | **Materials & Resources** | **Assessment Methods/Assessment Date** | **Key Vocabulary** |
| **Unit 1:** Patterning  August 29-Sept. 20  3 weeks | The regular change in increasing patterns can be identified and used to make generalizations. | * **Repeating and increasing patterns** * Use reasoning and logic to explore and make connections * Use multiple strategies to engage in problem solving * Develop, construct, and apply mathematical understanding through role-play, inquiry, and problem solving * Engage in problem-solving experiences that are connected to place, story, and cultural practices relevant to the local community * Communicate in many ways * Describe, create, and interpret relationships through concrete, pictorial, and symbolic representations * Use technology appropriately to explore mathematics, solve problems, record, communicate, and represent thinking * Visualize and describe mathematical concepts * Connect mathematical concepts to each other and make mathematical connections to the real world * Share and reflect upon mathematical thinking * Draw upon local First Peoples knowledge and/or expertise of local Elders to make connections to mathematical topics and concepts | **Students are expected to know the following:**   * repeating and increasing patterns | * continually review new vocabulary * creating, extending, and comparing patterns using math manipulatives and other concrete objects. * creating, extending, and completing patterns using body movements, sounds, and gestures. * describing patterns orally, in writing, and using pictures (in math journals) * using a balance and pictures to determine whether to groups are equal or not. * using math manipulatives to recreate equation to determine equality vs. inequality. * patterning games | Math Makes Sense Teachers Guide (Unit 1: Patterning)  Math Makes Sense Student Workbook (pp. 13-28)  https://www.biglearners.com/worksheets/grade-2/math  Math PM books  Prodigy Math Online Resource  Xtramath Online mental Math games  <https://jr.brainpop.com/math/geometry/patterns/>  Beads  Counters  Unifix Cubes  Pattern blocks  Buttons  Stickers  Stamps | Observe students creating, copying, describing and extending patterns  (Assessment master 1 p.60 Teacher’s Guide)  Patterning Rubrics (Assessment Master 4 & 5 p. 64-65 Teachers Guide)  Record student progress using checklist (Assessment Master 3.1 and 3.2 pp 62-63) Teachers Guide)  Class work (workbook)  Weekly Cumulative quizzes  **Common Unit Test:** Thursday September 20th, 2018. | Attributes (shape, colour, size, position)  Repeating patterns  extend  Pattern  Pattern core  Pattern rule  AB, ABB, ABC, AABB patterns  elements  increasing pattern |
| **Unit 2:** Number Concepts to 100  5 weeks  Sept. 23-Nov. 1 | Numbers to 100 represent quantities that can be decomposed into 10s and 1s. | * **number concepts to 100** * **benchmarks of 25, 50, and 100 and personal referents** * **symbolic representation of equality and inequality** * Estimate reasonably * Develop mental math strategies and abilities to make sense of quantities * Use reasoning and logic to explore and make connections * Use multiple strategies to engage in problem solving * Develop, construct, and apply mathematical understanding through role-play, inquiry, and problem solving * Engage in problem-solving experiences that are connected to place, story, and cultural practices relevant to the local community * Communicate in many ways * Describe, create, and interpret relationships through concrete, pictorial, and symbolic representations * Use technology appropriately to explore mathematics, solve problems, record, communicate, and represent thinking * Visualize and describe mathematical concepts * Connect mathematical concepts to each other and make mathematical connections to the real world * Share and reflect upon mathematical thinking | **Students are expected to know the following:**   * Quantities to 100 can be arranged and recognized: * comparing and ordering numbers to 100 * benchmarks of 25, 50, and 100 * place value:  1. understanding of 10s and 1s 2. understanding the relationship between digit places and their value, to 99 (e.g., the digit 4 in 49 has the value of 40) 3. decomposing two-digit numbers into 10s and 1s  * symbolic representation of equality and inequality * even and odd numbers * financial literacy * counting simple mixed combinations of coins to 100 cents * introduction to the concepts of spending and saving, integrating the concepts of wants and needs * role-playing financial transactions (e.g., using bills and coins) | * create vocabulary list for new words to be used in the unit as we go along. * orally skip count every day * use blank hundreds chart and hundreds line to complete. * practice counting by 2s, 5s, and 10s orally and using number lines and hundreds charts * create number representations using base ten blocks. * Using number lines to determine whether a number is bigger or smaller than another number. * using base ten blocks to understand place value and transforming ones to tens, tens to hundreds, etc. * solve word problems in groups using different strategies. * number games | Math Makes Sense Teachers Guide (Unit 2: Numbers to 100)  Math Makes Sense Student Workbook (pp. 29-58)  <https://jr.brainpop.com/math/numbersense/evenandodd/>  <https://jr.brainpop.com/math/additionandsubtraction/makingten/>  <https://jr.brainpop.com/math/numbersense/placevalue/>  100’s chart  Ten Frames  Number Lines  Number Cards  Measuring tape  Counters    Dice | Record student progress using checklist (Assessment Master 1 p. 86, Teachers Guide)  Observe students demonstrating counting forwards and backwards by 2s, 5s and 10s, identifying even and odd numbers, count with pennies, nickels, and dimes (Assessment Master 3.1 p.88)  Observe students demonstrating  use of ordinal numbers, estimate quantities to 50 and to 100 (Assessment Master 3.2 p.89)  Observe students demonstrating  grouping objects into tens and ones, using base 10 blocks, representing to number 100 with pennies, nickels, dimes, quarters (Assessment Masters 3.3 p.90, Teachers Guide)  Observe students demonstrating  knowledge of equal and unequal sets. identify errors and omissions in a 100 chart, order number in ascending and descending order  (Assessment Masters 3.4 p.91, Teachers Guide)  Performance Task Rubric (Assessment Master 4, p. 92, Teachers Guide)  Numbers to 100 Rubric (Assessment Master 5, p. 93, Teachers Guide)  Weekly Cumulative Quizzes  **Common Unit Test: Thursday, Nov. 1st** | Equal  Unequal  forward  backward  counting pattern  pattern rule  odd  even  estimate  tens  ones  base 10 blocks  greatest  least  more  less  ascending  descending |
| **Unit 3:** Addition and Subtraction to 18  3 weeks  Nov. 4-Nov. 22 | Development of computational fluency in addition and subtraction with numbers to 100 requires an understanding of place value. | * **addition and subtraction facts to 20** * Develop mental math strategies and abilities to make sense of quantities * Use reasoning and logic to explore and make connections * Use multiple strategies to engage in problem solving * Develop, construct, and apply mathematical understanding through role-play, inquiry, and problem solving * Engage in problem-solving experiences that are connected to place, story, and cultural practices relevant to the local community * Describe, create, and interpret relationships through concrete, pictorial, and symbolic representations * Use technology appropriately to explore mathematics, solve problems, record, communicate, and represent thinking * Visualize and describe mathematical concepts * Connect mathematical concepts to each other and make mathematical connections to the real world * Share and reflect upon mathematical thinking | * addition and subtraction facts to 20 * adding and subtracting numbers to 20 * fluency with math strategies for addition and subtraction (e.g., making or bridging 10, decomposing, identifying related doubles, adding on to find the difference) | centres using concrete materials to add and subtract.  using base ten blocks to represent numbers and their place value, and, addition and subtraction.  class demonstrations on different strategies to add and subtract  use math picture riddles to encourage students to develop students to add numbers mentally.  addition and subtraction games  orally skip count every day | MMS teacher guide unit 3: Addition and Subtraction to 18  Student workbooks p.59-88  <https://jr.brainpop.com/math/additionandsubtraction/doubles/>  MMS blackline masters  blank hundreds charts  large groups of objects (coloured tiles, popsicle sticks, etc.)  number lines  Base Ten blocks  Ten Frames  colour counters  online math games (ixl.com) | Record student progress using checklist (Assessment Master 1 p. 86, Teachers Guide)  Ongoing observations checklists(Assessment Masters 3.1-3.4 pp. 88-91)  Rubrics (Assessment Masters 4-5, pp. 92-93)  Cumulative Weekly Test  **Common Unit Test: Thursday, Nov. 22** | plus  add  sum  altogether  in all  minus  subtract  left  difference |
| **Unit 5:** Addition and Subtraction to 100  10 weeks  Nov. 25-Feb. 7 | Development of computational fluency in addition and subtraction with numbers to 100 requires an understanding of place value. | * **addition and subtraction to 100** * Develop mental math strategies and abilities to make sense of quantities * Use reasoning and logic to explore and make connections * Use multiple strategies to engage in problem solving * Develop, construct, and apply mathematical understanding through role-play, inquiry, and problem solving * Engage in problem-solving experiences that are connected to place, story, and cultural practices relevant to the local community * Describe, create, and interpret relationships through concrete, pictorial, and symbolic representations * Use technology appropriately to explore mathematics, solve problems, record, communicate, and represent thinking * Visualize and describe mathematical concepts * Connect mathematical concepts to each other and make mathematical connections to the real world * Share and reflect upon mathematical thinking   describe  mathematical concepts  Connect mathematical concepts  to each other and make  mathematical connections to the  real world  Share and reflect upon  mathematical thinking | * number concepts to 100 * addition and subtraction to 100 * decomposing numbers to 100 * estimating sums and differences to 100 * using strategies such as looking for multiples of 10, friendly numbers (e.g., 48 + 37, 37 = 35 + 2, 48 + 2 = 50, 50 + 35 = 85), decomposing into 10s and 1s and recomposing (e.g., 48 + 37, 40 + 30 = 70, 8 +7 = 15, 70 +15 = 85), and compensating (e.g., 48 + 37, 48 +2 = 50, 37 – 2 = 35, 50 + 35 = 80) * financial literacy * counting simple mixed combinations of coins to 100 cents * introduction to the concepts of spending and saving, integrating the concepts of wants and needs * role-playing financial transactions (e.g., using bills and coins) | * centres using concrete materials to add and subtract. * using digi-blocks to represent numbers and their place value, and addition and subtraction. * class demonstrations on different strategies to add and subtract * use math picture riddles to encourage students to develop students ability to add numbers mentally. * addition and subtraction games * orally skip count every day * class demonstrations on different strategies to add and subtract * use math picture riddles to encourage students to develop students to add numbers mentally. * addition and subtraction games * orally skip count every day | MMS teacher guide unit 5: Addition and Subtraction to 100  MMS student workbook pp.125-154  https://www.youtube.com/watch?v=8hz0fAQV0ac  <https://youtu.be/nku3jVLbPBw>  <https://jr.brainpop.com/math/additionandsubtraction/addingwithregrouping/>  <https://jr.brainpop.com/math/additionandsubtraction/subtractingwithregrouping/> | Record student progress using checklist (Assessment Master 1 p. 80, Teachers Guide)  Ongoing observations checklists(Assessment Masters 3.1-3.4 pp. 82-85)  Rubrics (Assessment Masters 4-5, pp. 86-87  Cumulative Weekly Test  **Common Unit Test: Thursday, Feb. 7** | plus  add  sum  altogether  in all  minus  subtract  left  differe |
| **Unit 7:** Data Analysis  4 weeks  Feb. 10-March 6 | Concrete items can be represented, compared, and interpreted pictorially in graphs. | * **pictorial representation of concrete graphs using one-to-one correspondence** * Estimate reasonably * Develop mental math strategies and abilities to make sense of quantities * Use reasoning and logic to explore and make connections * Use multiple strategies to engage in problem solving * Develop, construct, and apply mathematical understanding through role-play, inquiry, and problem solving * Engage in problem-solving experiences that are connected to place, story, and cultural practices relevant to the local community * Communicate in many ways * Describe, create, and interpret relationships through concrete, pictorial, and symbolic representations * Visualize and describe mathematical concepts * Connect mathematical concepts to each other and make mathematical connections to the real world * Share and reflect upon mathematical thinking | pictorial representation   * collecting data, creating a concrete graph, and representing the graph, using a pictorial representation through grids, stamps, drawings * one-to-one correspondence | * use a bar graph or pictograph to answer questions about class preferences. * analyze and answer questions about ready constructed pictographs and bar graphs * individual graph project | MMs Teacher guide: Unit 7  MMS student workbook pp. 189-204  <https://jr.brainpop.com/math/data/pictographs/>  <https://jr.brainpop.com/math/data/tallychartsandbargraphs/> | Record student progress using checklist (Assessment Master 1 p. 52, Teachers Guide)  Ongoing observations checklists(Assessment Masters 3.1-3. pp. 54-56)  Rubrics (Assessment Masters 4-5, pp. 57-58)  Cumulative Weekly Test  **Common Unit Test: Wednesday March 6th** | how many more \_\_\_\_\_\_ than \_\_\_\_\_\_?  combined  altogether  in all  most  least  fewest  favorite |
| **Unit 4 :** Measurement  3 weeks  March 10- March 28 | Objects and shapes have attributes that can be described, measured, and compared. | * **direct linear measurement, introducing standard metric units** * Estimate reasonably * Develop mental math strategies and abilities to make sense of quantities * Use reasoning and logic to explore and make connections * Develop, construct, and apply mathematical understanding through role-play, inquiry, and problem solving * Engage in problem-solving experiences that are connected to place, story, and cultural practices * relevant to the local community   Describe, create, and interpret relationships through concrete, pictorial, and symbolic representations | direct linear measurement   * centimetres and metres * estimating length * measuring and recording length, height, and width, using standard units | * continually review new vocabulary * class demonstrations on proper measurement techniques * guided practice * measurement projects | MMS teacher guide unit 4  MMS student workbooks pp. 112-118, 122  (note: have students use centimeter rulers to measure, not non-standard units)  Unit 4 Worksheets found in the MMS teacher guide binder  <https://jr.brainpop.com/math/measurement/centimetersmeterskilometers/>  measuring tapes  rulers  string  https://www.biglearners.com/worksheets/grade-2/math | MMS Assessment Masters 1-3.3 (pp. 60-64)  Cumulative Weekly Tests  **Common Unit Test: Thursday, March 28**  Note: Substitute standard units (centimetres and metres) anywhere it says non-standard units | centimetre  metre  longer  shorter  distance  measure |
| **Unit 6:** Geometry  4 weeks  March 31- May 2 | Objects and shapes have attributes that can be described, measured, and compared. | * **multiple attributes of 2D shapes and 3D objects** * Use reasoning and logic to explore and make connections * Use multiple strategies to engage in problem solving * Develop, construct, and apply mathematical understanding through role-play, inquiry, and problem solving * Engage in problem-solving experiences that are connected to place, story, and cultural practices relevant to the local community * Communicate in many ways * Describe, create, and interpret relationships through concrete, pictorial, and symbolic representations * Visualize and describe mathematical concepts * Connect mathematical concepts to each other and make mathematical connections to the real world * Share and reflect upon mathematical thinking | multiple attributes of 2D shapes and 3D objects   * sorting 2D shapes and 3D objects, using two attributes, and explaining the sorting rule * describing, comparing, and constructing 2D shapes, including triangles, squares, rectangles, circles * identifying 2D shapes as part of 3D objects * using traditional northwest coast First Peoples shapes (ovoids, U, split U, and local art shapes) reflected in the natural environment | * create word wall math vocabulary with corresponding pictures. * Classroom and school shape hunts * sort 3D objects and 2D shapes using different sorting criteria * develop sorting criteria and sort shapes. * art projects using 2D shapes * shape games * construct 3D shapes using templates * Construct 3D shapes using toothpicks and sticky tack | MMS teacher guide unit 6  MMS student workbooks pp. 171-188  <https://jr.brainpop.com/math/geometry/planeshapes/>  <https://jr.brainpop.com/math/geometry/solidshapes/>  <https://www.youtube.com/watch?v=2cg-Uc556-Q>  poster with names and attributes of 3D shapes  class set of 3D shapes  a variety of laminated shapes for class games  clay or play dough for making shapes | MMS Teacher guide pp.  Cumulative Weekly Test  **Common Unit Test: Thursday, May 2** | circle  square  triangle  rectangle  hexagon  pentagon  parallelogram  cube  cylinder  cone  pyramid  prism  rectangular prism  triangular prism  edge  vertex  vertices  face  corner  side  difference between a pyramid and a prism |
| **Probability:** Likelihood of events  3 weeks  May 5- May 23 | Concrete items can be represented, compared, and interpreted pictorially in graphs. | * **likelihood of events using comparative language** * Estimate reasonably * Develop mental math strategies and abilities to make sense of quantities * Use reasoning and logic to explore and make connections * Use multiple strategies to engage in problem solving * Develop, construct, and apply mathematical understanding through role-play, inquiry, and problem solving * Engage in problem-solving experiences that are connected to place, story, and cultural practices relevant to the local community * Communicate in many ways * Describe, create, and interpret relationships through concrete, pictorial, and symbolic representations * Visualize and describe mathematical concepts * Connect mathematical concepts to each other and make mathematical connections to the real world * Share and reflect upon mathematical thinking | likelihood of familiar life events   * using comparative language (e.g., certain, uncertain; more, less, or equally likely) | * Use an anchor chart to show vocabulary on a scale from 0-1 * Give examples of a variety of events to help students understand the vocabulary * use concrete objects (tiles, shapes, marbles, etc) to demonstrate the likelihood of choosing a given object | <https://www.biglearners.com/worksheets/grade-2/math>  <https://jr.brainpop.com/math/data/basicprobability/>  Unit 8 Worksheets found in the MMS teacher guide binder  colored tiles  pattern blocks  unifix cubes  spinners | Cumulative Weekly Test  **Common Unit Test: Thursday, May 23** | Impossible  unlikely  equally likely  likely  certain  possible  less likely  more likely  uncertain |