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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 (Week 1, 3 Weeks)  Aug. 29th-Sept. 27th | Regular increases and decreases in patterns can be identified and used to make generalizations | **Students are expected to do the following:**  Use reasoning to explore and make connections  Develop mental math strategies and abilities to make sense of quantities  Model mathematics in contextualized experiences  Use technology to explore mathematics  **Understanding and solving**  Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving  Visualize to explore mathematical concepts  Develop and use multiple strategies to engage in problem solving  Engage in problem-solving experiences that are connected to place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures  **Communicating and representing**  Communicate mathematical thinking in many ways  Use mathematical vocabulary and language to contribute to mathematical discussions  Explain and justify mathematical ideas and decisions  Represent mathematical ideas in concrete, pictorial, and symbolic forms  **Connecting and reflecting**  Connect mathematical concepts to each other and to other areas and personal interests  Incorporate First Peoples worldviews and perspectives to make connections to mathematical concepts | **Students are expected to know the following:**  Increasing and decreasing patterns  Pattern rules using words and numbers, based on concrete experiences | Creating, extending, and identifying patterns using math manipulative, shapes, letters, numbers and sounds or actions  Building, describing, comparing and recording increasing and decreasing patterns and pattern rules  Teacher modelling  Communicating about patterns using appropriate math language  Think-aloud to describe, create increasing and decreasing patterns.    Use patterns to solve problems  Patterning Centers | Math Makes Sense Teachers Guide (Unit 1: Patterning)  Math Makes Sense Student Workbook (pp. 1-14)  Math Makes Sense Text Book Book (pp. 4-34)  Math PM books  Studyladder online activities  BrainPop website for Math videos  Counters  Unfix Cubes  Pattern blocks  Buttons  Grid Paper  Hundreds Chart | Observe students creating, copying, describing and extending patterns (Assessment Master 1.1 Unit Rubric p. 35 Teachers Guide)  Record student progress using checklist (Ongoing Observations Master 1.2 p. 36 Teachers Guide)  Class work (workbook)  Weekly Cumulative quizzes  **Common Unit Test:** Thursday September 27th, 2018. | Growing Patterns  Increasing Patterns  Pattern Rule  Shrinking Pattern  Decreasing Pattern |
| **Unit 2:** Numbers to 1000 (Week 4, 5 Weeks)  Sept 30th - Nov 1st | Development of computational **fluency** in addition and subtraction, multiplication and division of whole numbers requires flexible decomposing and composing | **Students are expected to know the following:**  Number concepts to 1000  Financial Literacy - fluency with coins and bills to 1000 Riyals (modified) | Math Centers  Describe, extend, compare, and create increasing and decreasing number patterns to 1000  Count forward and backward by 5, 10, and 100 to 1000 from any starting point  Count forward and backward by 3, 4, and 25 to 1000  Represent and describe numbers to 1000, concretely, pictorially and symbolically  Illustrate the meaning of place value of numbers to 1000  Order and compare numbers to 1000  Estimate quantities less than 1000 using referents | Math Makes Sense Proguide Unit 2  Math Makes Sense Student Workbook (pp. 16-34)  Math Makes Sense Textbook (pp. 37-79)  100’s chart  Ten frames  Number lines  Counters    Dice  Brainpop videos  <https://drive.google.com/drive/folders/0Bzr_ShiED26OYUp2VWc3cFZmZHM>  <https://drive.google.com/open?id=0Bzb6GkeCmj7AVE9lTUN4emd6U3M> | Math Makes Sense Proguide Unit 2  Master 2.1 Unit Rubric (p. 47)  Master 2.2 Ongoing Observations (p, 48)  Master 2.5 Student Reflection (p. 51)  Weekly Cumulative Quizzes (3 quizzes)  **Common Unit Test: Wednesday November 1** | Standard Form  Digit  Place Value  Compare  Order  Number Line  Estimate  Referent  Thousand |
| **Unit 3:** Addition and Subtraction (Week 9, 8 Weeks)  November 4th - January 10th | Standard units are used to describe , measure, and compare attributes of objects’ shapes | **Students are expected to know the following:**  Addition and subtraction to 1000  Addition and subtraction facts to 20 (emerging computational fluency)  One-step addition and subtraction equations with an unknown number | Using strategies to recall basic addition and subtraction facts  Estimate and solve sums and differences for 2-digit numbers using mental math strategies  Develop personal strategies for add and subtract numbers up to 3 digits  Practice solving word problems using addition and subtraction | Math Makes Sense Pro-Guide Unit 3  Math Makes Sense Student Workbook  (p. 36-59)  Math Makes Sense Textbook (p. 81-131)  Brainpop videos  Center Work:  <https://drive.google.com/open?id=0Bzr_ShiED26ObjBmMUdXbEdOazQ>  <https://drive.google.com/open?id=1o1wST1tob-yR6b7IrJq229YmWQGXtU8p>  <https://drive.google.com/open?id=1LJk7SCY1zx61Rf_4vwsfp7EQt0L43RR9>  <https://drive.google.com/open?id=0Bzr_ShiED26OTHVlMG1HS3JUZ2M>  <https://drive.google.com/open?id=0Bzr_ShiED26OR1EzWGMyRmkyZW8>  <https://drive.google.com/open?id=0Bzr_ShiED26OQm5Zb0pNWnFpa3M>  <https://drive.google.com/open?id=0Bzb6GkeCmj7AZnV6SjZFV3RsZDA>  <https://drive.google.com/open?id=0Bzb6GkeCmj7AV01jYWFiQUw5RWc>  <https://drive.google.com/open?id=0BxSMYGd52miPTlJ5MVJoUnFGLVU>  <https://drive.google.com/open?id=0B-7IpWaF-7t6YXRyLUd2d2JJemt5YVpLYWFjc3NRZ1F2Q3hV> | Math Makes Sense Pro-guide Unit 3  Master 3.1 Unit Rubric (p. 55)  Master 3.2 Ongoing Observations (p. 56)  Master 3.5 Student Reflection on Learning (p. 59)  Cumulative Quizzes ( 6 quizzes)  **Common Unit Test: Thursday January 10th** | Addition Facts  Doubles  Near Doubles  Sum  Related Facts  Subtraction Facts  Equation  Estimate  Mental Math  Difference |
| **Unit 4:** Measurement (Week 20, 4 Weeks)  February 3rd - February 28th | Numbers to 20 represent quantities that can be decomposed into 10s and 1s. |  | **Students are expected to know the following:**  Time concepts  Measurement using standard units (linear, mass, capacity) | Explore the concept of non-standard and standard units to measure the passage of time  Use a calendar  Measure length, width, and height in centimeters and meters  Measure perimeter in centimeters and meters  Measure the mass of an object using grams and kilograms | Math Makes Sense Proguide Unit 4  Math Makes Sense Student Workbook (p. 60-81)  Make Makes Sense Textbook (p. 132-179)  Brainpop Videos  Rulers  Tape Measures  Scales  Timers/Watches  Calendars | Math Makes Sense Proguide Unit 4  Master 4.1 Unit Rubric (p. 53)  Master 4.2 Ongoing Observations (p. 54)  Master 4.2 Student Reflection (p. 57)  Cumulative Quizzes (3 quizzes)  **Common Unit Test: Thursday February 28th** | Unit  Hour  Minute  Second  Calendar  length  Width  Height  Centimeter  Metre  Referent  Perimeter  Mass  Kilogram  Gram |
| **Unit 5:**  Fractions  (Week 24, 4 Weeks ) March 3 –March 28 | Number represents and describes quantity: Parts of wholes can be represented by fractions. | **Students are expected to do the following:**  Use reasoning to explore and make connections  Develop mental math strategies and abilities to make sense of quantities  Model mathematics in contextualized experiences  Use technology to explore mathematics  **Understanding and solving**  Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving  Visualize to explore mathematical concepts  Develop and use multiple strategies to engage in problem solving  Engage in problem-solving experiences that are connected to place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures  **Communicating and representing**  Communicate mathematical thinking in many ways  Use mathematical vocabulary and language to contribute to mathematical discussions  Explain and justify mathematical ideas and decisions  Represent mathematical ideas in concrete, pictorial, and symbolic forms  **Connecting and reflecting**  Connect mathematical concepts to each other and to other areas and personal interests  Incorporate First Peoples worldviews and perspectives to make connections to mathematical concepts | **Students are expected to know the following:**  Parts of wholes can be represented by fractions. | Explore equal parts of a whole  Fractions of a whole  Naming and Writing fractions  Comparing fractions | Math Makes Sense Proguide Unit 5  Math Makes Sense Student Workbook (p. 82-91)  Make Makes Sense Textbook (p. 180-205)  Brainpop Videos  Pattern Blocks  Paper cut-outs of shapes  Pattern blocks  Fraction cards  Grid paper  Cuisenaire rods or strips of coloured paper  Scissors  Counters  Colour Tiles | Math Makes Sense Pro-guide Unit 3  Master 5.1 Unit Rubric (p. 29)  Master 5.2 Ongoing Observations (p. 30)  Master 5.5 Student Reflection on Learning (p. 33)  Cumulative Quizzes ( 2 quizzes)  **Common Unit Test: Thursday March 28** | Equal parts  whole  Fractions  Halves  Thirds  Quarters/ Fourths  Fifths  Sixths  Sevenths  Eighths  Ninths  Tenths  Numerator  Denominator |
| **Unit 6:**  Geometry  (Week 17 , 3 Weeks)  January 13- January 31 | Describe, measure, and compare spatial relationships: Standard units are used to measure attributes of objects’ shapes. | **Students are expected to know the following:**  Accurately describe 3D objects and classify polygons. | Naming polygons  Sorting polygons  Describe prisms and pyramids  Describing cylinders, cones, and spheres  Sorting objects  Constructing skeletons | Math Makes Sense Proguide Unit 6  Math Makes Sense Student Workbook (p. 92-103)  Make Makes Sense Textbook (p. 206-237)  Brainpop Videos  Geoboards, geobands, geoboard paper, square dot paper  Large cutouts of polygons  Pattern blocks  Models of cylinders, cones, and spheres  Models of prisms, pyramids, cylinders, cones, and spheres  Straws, modelling clay, toothpicks, scissors | Math Makes Sense Pro-guide Unit 3  Master 6.1 Unit Rubric (p. 35)  Master 6.2 Ongoing Observations (p. 36)  Master 6.5 Student Reflection on Learning (p. 39)  Cumulative Quizzes (2 quizzes)  **Common Unit Test: Thursday January 31** | Polygon  Shape  Object  Face  Edge  Vertex, vertices  Base  Skeleton  Prism  Cube  Pyramid  Cone  Sphere  Cylinder  Triangle  Quadrilateral  Pentagon  Hexagon  Octagon |
| **Unit 7:**  (Week 37, 3 Weeks)  May 12-May 29 | Analyzing data and chance help us to compare and interpret: The likelihood of possible outcomes can be examined. | **Students are expected to know the following:**    Use appropriate methods to record and organize data, create and interpret graphs, and answer questions using data. | Collecting and organizing data  Line plots  Reading bar graphs  Using graphs to solve problem | Math Makes Sense Proguide Unit 7  Math Makes Sense Student Workbook (p. 104-113)  Make Makes Sense Textbook (p. 238-265)  Brainpop Videos | Math Makes Sense Pro-guide Unit 3  Master 6.1 Unit Rubric (p. 35)  Master 6.2 Ongoing Observations (p. 36)  Master 6.5 Student Reflection on Learning (p. 39)  Cumulative Quizzes (2 quizzes)  **Common Unit Test: Wednesday May 29** | Data  Chart  List  Tally chart  Line plot  Bar graph  Title  Axis, axes  Scale |
| **Unit 8:**  (Week 32, 5 Weeks)  March 31-  May 9 | Developing computational fluency comes from a strong sense of number: Flexible decomposing and composing are used when adding, subtracting, multiplying, and dividing whole numbers. | **Students are expected to know the following:**  Understand multiplication and division concepts using appropriate strategies to show equal groupings and arrays | Investigating equal groups  Relating multiplication and repeated addition  Using arrays  To multiply  Relating Multiplication sentences  Division as grouping  Division as sharing  Relating division and repeated subtraction  Relating multiplication and division using arrays  Relating multiplication and division using groups | Math Makes Sense Proguide Unit 8  Math Makes Sense Student Workbook (p. 114-132)  Make Makes Sense Textbook (p. 266-305)  Brainpop Videos  Number chart  Dot cards  Counters  Blocks  Number cards  Number lines  2-cm grid paper | Math Makes Sense Pro-guide Unit 3  Master 8.1 Unit Rubric (p. 51)  Master 8.2 Ongoing Observations (p. 52)  Master 8.5 Student Reflection on Learning (p. 55)  Cumulative Quizzes (2 quizzes)  **Common Unit Test: Thursday May 9** | Multiply  Multiplication  sentence  Times  Equal groups  Array  Product  Divide  Division sentence  Divided by |