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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:** Number Concepts**September 3rd to October 11th****Unit Test: Oct 11** | \* Mixed **numbers** and decimal numbers represent quantities that can be decomposed into parts and wholes.\* Computational **fluency** and flexibility with numbers extend to operations with whole numbers and decimals.  | \* **Estimate reasonably**\* Demonstrate and **apply** mental math strategies | **\* Small to large numbers** (thousandths to billions)\* Multiplication and division **facts to 100** (developing computational fluency)\* **Factors and multiples** — greatest common factor and least common multiple\* **Improper fractions** and mixed numbers | \*Use place value to represent whole numbers greater than one million \* Solve problems involving large numbers\* Determine multiples and factors of numbers less than 100\* Identify prime and composite numbers \* Relate improper fractions to mixed numbers\* Compare mixed numbers and fractions\* Student work from pages **2-54** in Grade 6 Mathematics BC Edition  | **\***Math Makes Sense ProGuide: Unit 2: Understanding Number**\*** Math Makes Sense Proguide: Unit 5: Fractions, Ratios, Percents\* Pages  **2-54** in Grade 6 Mathematics BC Edition \* Multiplication tables\* Flash cards\* Base 10 blocks\* Fraction bars\* Pattern blocks\* Place Value Chart\*https://www.khanacademy.org/ | **\*** Regular Bellwork**\* Mad minute math tests every Monday (multiplication table practice)** \* Assessment for Learning: Question, Observe & Explore\* Assessment as Learning: Reflect, Prompt, Review, Assessment Focus Question \* Assessment of Learning: Unit Problem, Quizzes, Unit Test \* Unit Test will be on **Thursday, October 11th** \* 2 cumulative quizzes |  \* Place Value\* Rounding\* Solving problems\* Factors\* Multiples\* GCF\* LCM\* Improper Fractions\* Mixed Numbers\* Ordering and Comparing  |
| **Unit 2:** Ratio, Percent, Integers and Decimals**October 15th-November 14th** **Unit Test: Nov 14th** | \* Mixed **numbers** and decimal numbers represent quantities that can be decomposed into parts and wholes.\* Computational **fluency** and flexibility with numbers extend to operations with whole numbers and decimals.  | \* Demonstrate and **apply** mental math strategies\* Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving\* **Estimate reasonably****\***  **Model** mathematics in contextualized experiences.  | \* Introduction to **ratios**\* Whole-number percents and **percentage** discounts\* Multiplication and division of **decimals**\* **Order of operations** with whole numbers | \* Review multiplying and dividing whole numbers\* Use ratios for part-to-part and part-to-whole comparisons\* Explore percents\* Relate percents to fractions and decimals\* Multiply decimals by 1-digit number\* Divide decimals by 1-digit number \* Apply the order of operations to solve multi-step problems. \* Student work from pages **56-105** in Grade 6 Mathematics BC Edition  | * **\*** Math Makes Sense Proguide: Unit 5: Fractions, Ratios, Percents

\* Pages  **56-105** in Grade 6 Mathematics BC Edition \* Fraction bars\* Base 10 blocks\* Pattern blocks \* 1-cm grid paper\* Hundred charts\*<https://www.khanacademy.org/>   | **\*** Regular Bellwork**\* Mad minute math tests every Monday (multiplication table practice)** \* Assessment for Learning: Question, Observe & Explore\* Assessment as Learning: Reflect, Prompt, Review, Assessment Focus Question \* Assessment of Learning: Unit Problem, Quizzes, Unit Test \* Unit Test will be on **Wednesday, November 14th** \* 2 cumulative quizzes | \* Multiplying\* Dividing\* Ratio\* Percent\* Order of Operations\* Divisibility rules\* Estimate  |
| **Unit 3:**Financial Literacy**November 18th - 28th****Unit test: Nov 28th** | \* Computational **fluency** and flexibility with numbers extend to operations with whole numbers and decimals.  | \* **Model** mathematics in contextualized experiences. Engage in problem-solving experiences that are connected to;\* In daily activities, local and traditional practices, the environment, popular media and news events, cross-curricular integration\* Patterns are important in First Peoples technology, architecture, and art.\* Have students pose and solve problems or ask questions connected to place, stories, and cultural practices. | \* Simple budgeting and consumer math\* Informed decision making on saving and purchasing | \* Questioning\* Modelling\* Prompting \* Reviewing \* Conferencing \* Discussion Method\* Student work from pages **107-121** in Grade 6 Mathematics BC Edition  | **\*** Math Makes Sense Proguide: Unit 5: Fractions, Ratios, Percents\* Pages  **107-121** in Grade 6 Mathematics BC Edition \*<https://www.khanacademy.org/> | **\*** Regular Bellwork**\* Mad minute math tests every Monday (multiplication table practice)** \* Assessment for Learning: Question, Observe & Explore\* Assessment as Learning: Reflect, Prompt, Review, Assessment Focus Question \* Assessment of Learning: Unit Problem, Quizzes, Unit Test \* Unit Test will be on **Wednesday, November 28th**\* 2 cumulative quizzes | \* Financial Literacy \* Planning\* Budget\* Fixed cost \* Variable cost\* Surplus\* Deficit  |
| **Unit 4:**Patterns **December 2nd - Jan 8th****(Qatar National Week, National Day, 2 Week winter break)****Unit test: January 8th, 2019** | **\* Linear relations** can be identified and represented using expressions with variables and line graphs and can be used to form generalizations. | \* Use **logic and patterns** to solve puzzles and play games\* Use tools or technology to explore and create patterns and relationships, and test conjectures | \* Increasing and decreasing **patterns**, using expressions, tables, and graphs as functional relationships\* Limited to discrete points in the first quadrant\* Visual patterning  | \* Describe patterns and relationships using graphs and tables\* Use equations to represent number relationships\* Use relationships within tables of values to solve problems\* Identify and plot points on the Cartesian plane\* Student work from pages **123-147** in Grade 6 Mathematics BC Edition  | **\*** Math Makes Sense Proguide: Unit 1: Patterns and Equations \* Pages **123-147** in Grade 6 Mathematics BC Edition \*Graph Paper\*2-column charts\*Colour tiles\* Geo-Board \*<https://www.khanacademy.org/> | **\*** Regular Bellwork**\* Mad minute math tests every Monday (multiplication table practice)** \* Assessment for Learning: Question, Observe & Explore\* Assessment as Learning: Reflect, Prompt, Review, Assessment Focus Question \* Assessment of Learning: Unit Problem, Quizzes, Unit Test \* Unit Test will be on **Tuesday, January 8th, 2019**\* 2 cumulative quizzes | \* Patterns\* Ordered Pair\* Relation \* Cartesian Plane \* Table of values\* Coordinate grid\* Input/output machine\* Horizontal and vertical axis \* Origin\* Coordinates\* Commutative properties  |
| **Unit 5:** **Variables and Equations****January 10th - 24th****Unit Test: January 24th, 2019** | \* **Linear relations** can be identified and represented using expressions with variables and line graphs and can be used to form generalizations. | \* Use tools or technology to explore and create patterns and relationships, and test conjectures\* **Model** mathematics in contextualized experiences\* Apply **multiple strategies** to solve problems in both abstract and contextualized situations\* Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving | \* **One-step equations** with whole-number coefficients and solutions\* Preservation of equality  | \* Student work from pages **148-175** in Grade 6 Mathematics BC Edition \* Develop formulas for the perimeters of polygons and the area of a rectangle. \* Use equations to represent number relationships\* Demonstrate the preservation of equality  | \* Math Makes Sense Proguide: Unit 1: Patterns and Equations \* Math Makes Sense Proguide: Unit 6: Geometry and Measurement \* Pages **148-175** in Grade 6 Mathematics BC Edition \*<https://www.khanacademy.org/>\* Counters\* Balance scales\* Geoboards\* Pattern blocks\* Grid paper\* Algebra tiles  | **\*** Regular Bellwork**\* Mad minute math tests every Monday (multiplication table practice)** \* Assessment for Learning: Question, Observe & Explore\* Assessment as Learning: Reflect, Prompt, Review, Assessment Focus Question \* Assessment of Learning: Unit Problem, Quizzes, Unit Test \* Unit Test will be on **Wednesday, January 24th, 2019**\* 2 cumulative quizzes | \* Preservation of equality\* Variable\* Equivalent form an equation\* Formula\* Perimeter\* Area  |
| **Unit 6:** Measurement**January 29th - February 21st****Unit Test: February 21st, 2019** | \* **Properties** of objects and shapes can be described, measured, and compared using volume, area, perimeter, and angles. | \* Use **reasoning and logic** to explore, analyze, and apply mathematical ideas\* **Model** mathematics in contextualized experiences\* **Explain and justify** mathematical ideas and decisions | \* Perimeter of complex shapes\* Area of triangles, parallelograms, and trapezoids\* Angle measurement and classification\* Volume and capacity | \* Student work from pages **176-209** in Grade 6 Mathematics BC Edition \* Name, describe and classify angles\* Estimate and determine angles measures\* Draw and label angles \* Provide examples of angles in the environment \* Develop formulas for the perimeters of polygons, the area of a rectangle and volume of rectangular prism.  | \* Pages **176-209** in Grade 6 Mathematics BC Edition \* Math Makes Sense Proguide: Unit 4: Angles and Polygons\* Math Makes Sense Proguide: Unit 6: Geometry and Measurement \*<https://www.khanacademy.org/>\* Pattern blocks\* Protractor\* Geoboards\* Tracing paper\* Grid Paper\* Linking cubes | **\*** Regular Bellwork**\* Mad minute math tests every Monday (multiplication table practice)** \* Assessment for Learning: Question, Observe & Explore\* Assessment as Learning: Reflect, Prompt, Review, Assessment Focus Question \* Assessment of Learning: Unit Problem, Quizzes, Unit Test \* Unit Test will be on **Thursday February 21st, 2019**\* 2 cumulative quizzes | \* Angle\* Arm\* Right angle\* Straight angle\* Acute angle\* Reflex angle\* Obtuse angle\* Protractor\* Interior ang;e\* Formula\* Variable\* Area\* Perimeter\* Volume\* Capacity  |
| **Unit 7:** **Shapes and Transformations****February 25th - March 25th****Unit Test: March 25th** | **\* Properties** of objects and shapes can be described, measured, and compared.  | \* Use **reasoning and logic** to explore, analyze and apply mathematical ideas**\* Model** mathematics in contextualized experiences\* Visualize to explore mathematical concepts\* Represent mathematical ideas in concrete, pictorial, and symbolic forms | \* Scalene, isosceles, equilateral\* Right, acute, obtuse\* Classified regardless of orientation\* Plotting points on Cartesian plane using whole-number ordered pairs\* Translation(s), rotation(s), and/or reflection(s) on a single 2D shape\*Limited to first quadrant\* Transforming, drawing, and describing image | \* Student work from pages **210-244** in Grade 6 Mathematics BC Edition \* Investigate the sum of angles in triangles and quadrilaterals \* Draw shapes in the first quadrant of a Cartesian plane\* Draw and describe images on a plane after a single transformation\* Construct and compare triangles \* Describe and compare regular and irregular polygons | \* Pages **210-244** in Grade 6 Mathematics BC Edition \* Math Makes Sense Proguide: Unit 4: Angles and Polygons\* Math Makes Sense Proguide: Unit 6: Geometry and Measurement \* Math Makes Sense Proguide: Unit 8: Transformations\*<https://www.khanacademy.org/>\* Protractor\* Geoboard\* Grid paper\* Tracing paper\* Mira\* Pattern blocks | **\*** Regular Bellwork**\* Mad minute math tests every Monday (multiplication table practice)** \* Assessment for Learning: Question, Observe & Explore\* Assessment as Learning: Reflect, Prompt, Review, Assessment Focus Question \* Assessment of Learning: Unit Problem, Quizzes, Unit Test \* Unit Test will be on **Monday, March 25th, 2019**\* 2 cumulative quizzes | \* Translations\* Rotations\* Reflections\* Equilateral triangle\* Isosceles triangle\* Scalene triangle\* Acute triangle\* Right triangle\* Obtuse triangle\* Polygon\* Non-polygon\* Regular polygon\* Irregular polygon \* Congruent\* Venn Diagram  |
| **Unit 8:** **Statistics and Probability****March 27 - April 24th****Unit Test: April 24th** | **Data** from the results of an experiment can be used to predict the theoretical probability of an event and to compare and interpret. | \* Use **logic and patterns** to solve puzzles and play games\* Use **reasoning and logic** to explore, analyze and apply mathematical ideas**\* Model** mathematics in contextualized experiences\* Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving\* **Communicate** mathematical thinking in many ways | \* **Single-outcome probability**, both theoretical and experimental\* Single-outcome probability events (e.g., spin a spinner, roll a die, toss a coin)\*Listing all possible outcomes to determine theoretical probability\* Comparing experimental results with theoretical expectation | \* Student work from pages **245-274** in Grade 6 Mathematics BC Edition \* Choose and justify an appropriate method to collect data\* Construct and interpret line graphs to draw conclusions\* Graph collected data to solve problems\* Find theoretical and experimental probabilities\* Compare theoretical and experimental probabilities  | \* Pages **245-274** in Grade 6 Mathematics BC Edition \* Math Makes Sense Proguide: Unit 7: Data Analysis and Probability\*<https://www.khanacademy.org/>\* Grid paper\* Dice\* Red and yellow colour tiles\* Spinners | **\*** Regular Bellwork**\* Mad minute math tests every Monday (multiplication table practice)** \* Assessment for Learning: Question, Observe & Explore\* Assessment as Learning: Reflect, Prompt, Review, Assessment Focus Question \* Assessment of Learning: Unit Problem, Quizzes, Unit Test \* Unit Test will be on **Wednesday, April 24th, 2019**\* 2 cumulative quizzes | \* Continuous data\* Discrete data\* Tables\* Tallies\* Line graph\* Bar Graph\* Circle Graph \* Possible outcomes\* Theoretical probability \* Experimental probability |
| **Unit 9:** Applying Curricular Competencies**April 28th - May 29th****Unit Test: May 29th** | \* Mixed **numbers** and decimal numbers represent quantities that can be decomposed into parts and wholes.\*Computational **fluency** and flexibility with numbers extend to operations with whole numbers and decimals.\* **Linear relations** can be identified and represented using expressions with variables and line graphs and can be used to form generalizations.\* **Properties** of objects and shapes can be described, measured, and compared using volume, area, perimeter, and angles.\* **Data** from the results of an experiment can be used to predict the theoretical probability of an event and to compare and interpret. | \* Use mathematical vocabulary and language to contribute to mathematical discussions\*Explain and justify mathematical ideas and decisions\* Communicate mathematical thinking in many ways\* Represent mathematical ideas in concrete, pictorial, and symbolic forms.\* **Reflect** on mathematical thinking\* Connect mathematical concepts to each other and to **other areas and personal interests**\* Use mathematical arguments to support **personal choices**\* **Incorporate First Peoples** worldviews and perspectives to **make connections** to mathematical concepts | \* Small to large numbers (thousandths to billions)\* Multiplication and division facts to 100 (developing computational fluency)\* Order of operations with whole numbers\* Factors and multiples — greatest common factor and least common multiple\* Improper fractions and mixed numbers\* Introduction to ratios\* Whole-number percents and percentage discounts\* Multiplication and division of decimals\* Increasing and decreasing patterns, using expressions, tables, and graphs as functional relationships\* One-step equations with whole-number coefficients and solutions\* Perimeter of complex shapes\* Area of triangles, parallelograms, and trapezoids\* Angle measurement and classification\* Volume and capacity\* Triangles\* Combinations of transformations\* Line graphs\* Single-outcome probability, both theoretical and experimental\* Financial literacy — simple budgeting and consumer math | \* Student work from pages **275-293** in Grade 6 Mathematics BC Edition \* Communicate \* Represent\* Connect\* Reasoning \* Conferencing \* Discussion Method | \* Pages **275-293** in Grade 6 Mathematics BC Edition\* Math Makes Sense Proguide Binder \*<https://www.khanacademy.org/>\* Base ten blocks\* Pattern blocks\* Colour tiles\* Grid paper\* Spinners\* Dice\* Tracing Paper | **\*** Regular Bellwork**\* Mad minute math tests every Monday (multiplication table practice)** \* Assessment for Learning: Question, Observe & Explore\* Assessment as Learning: Reflect, Prompt, Review, Assessment Focus Question \* Assessment of Learning: Unit Problem, Quizzes, Unit Test \* Unit Test will be on **Wednesday, May 29th, 2019**\* 2 cumulative quizzes | \*Communicating\* Explain\* Describe\* Identify\* Representing\* Likelihood\* Connecting\* Relating\* Reasoning \* Problem solving  |