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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 |