

Grade 6 Outcome Correlation		
Big Ideas:	Elaborations:	StudyForge Video Location
Mixed numbers and decimal numbers represent quantities that can be decomposed into parts and wholes.	<p>Number: Number represents and describes quantity.</p> <p>Sample questions to support inquiry with students:</p> <p>In how many ways can you represent the number ____?</p> <p>What are the connections between fractions, mixed numbers, and decimal numbers?</p> <p>How are mixed numbers and decimal numbers alike? Different?</p>	<p>Chapter 1: Multiplication and Division</p> <p>Chapter 3: Factors and Multiples</p> <p>Chapter 4: Fractions and Ratios</p> <p>Chapter 5: Percentage</p>
Computational fluency and flexibility with numbers extend to operations with whole numbers and decimals.	<p>Computational Fluency: Computational fluency develops from a strong sense of number.</p> <p>Sample questions to support inquiry with students:</p> <p>When we are working with decimal numbers, what is the relationship between addition and subtraction?</p> <p>When we are working with decimal numbers, what is the relationship between multiplication and division?</p> <p>When we are working with decimal numbers, what is the relationship between addition and multiplication?</p> <p>When we are working with decimal numbers, what is the relationship between subtraction and division?</p>	<p>Chapter 1: Multiplication and Division</p> <p>Chapter 2: Order of Operations</p> <p>Chapter 3: Factors and Multiples</p> <p>Chapter 4: Fractions and Ratios</p> <p>Chapter 5: Percentage</p>

<p>Linear relations can be identified and represented using expressions with variables and line graphs and can be used to form generalizations.</p>	<p>Patterning: We use patterns to represent identified regularities and to make generalizations. Sample questions to support inquiry with students:</p> <ul style="list-style-type: none"> What is a linear relationship? How do linear expressions and line graphs represent linear relations? What factors can change or alter a linear relationship? 	<p>Chapter 6: Patterns Chapter 7: One-Step Equations Chapter 11: Transformations and Line Graphs</p>
<p>Properties of objects and shapes can be described, measured, and compared using volume, area, perimeter, and angles.</p>	<p>Geometry and Measurement: We can describe, measure, and compare spatial relationships. Sample questions to support inquiry with students:</p> <ul style="list-style-type: none"> How are the areas of triangles, parallelogram, and trapezoids interrelated? What factors are considered when selecting a viable referent in measurement? 	<p>Chapter 8: Perimeter and Area Chapter 9: Volume and Capacity Chapter 10: Angles and Triangles</p>
<p>Data from the results of an experiment can be used to predict the theoretical probability of an event and to compare and interpret.</p>	<p>Data and Probability: Analyzing data and chance enables us to compare and interpret. Sample questions to support inquiry with students:</p> <ul style="list-style-type: none"> What is the relationship between theoretical and experimental probability? What informs our predictions? What factors would influence the theoretical probability of an experiment 	<p>Chapter 11: Transformations and Line Graphs Chapter 12: Probability</p>

Content:	Elaborations:	StudyForge Video Location	StudyForge Resource Location
small to large numbers (thousandths to billions)	<ul style="list-style-type: none"> place value from thousandths to billions, operations with thousandths to billions numbers used in science, medicine, technology, and media compare, order, estimate 	Chapter 3: Factors and Multiples	Factors and Multiples Mastery Assignment Factors and Multiplies Chapter Test StudyForge Practice Questions
multiplication and division facts to 100 (developing computational fluency)	<ul style="list-style-type: none"> mental math strategies (e.g., the double-double strategy to multiply 23×4) 	Chapter 1: Multiplication and Division	Multiplication and Division Mastery Assignment Multiplication and Division Chapter Test StudyForge Practice Questions
order of operations with whole numbers	<ul style="list-style-type: none"> includes the use of brackets, but excludes exponents quotients can be rational numbers 	Chapter 2: Order of Operations	Order of Operations Mastery Assignment Order of Operations Chapter Test StudyForge Practice Questions
factors and multiples — greatest common factor and least common multiple	<ul style="list-style-type: none"> prime and composite numbers, divisibility rules, factor trees, prime factor phrase (e.g., $300 = 2^2 \times 3 \times 5^2$) using graphic organizers (e.g., Venn diagrams) to compare numbers for common factors and common multiples 	Chapter 3: Factors and Multiples	Factors and Multiples Mastery Assignment Factors and Multiplies Chapter Test StudyForge Practice Questions

improper fractions and mixed numbers	<ul style="list-style-type: none"> • using benchmarks, number line, and common denominators to compare and order, including whole numbers • using pattern blocks, Cuisenaire Rods, fraction strips, fraction circles, grids • birchbark biting 	Chapter 4: Fractions and Ratios	Fractions and Ratios Mastery Assignment Fractions and Ratios Chapter Test StudyForge Practice Questions
introduction to ratios	<ul style="list-style-type: none"> • comparing numbers, comparing quantities, equivalent ratios • part-to-part ratios and part-to-whole ratios 	Chapter 4: Fractions and Ratios	Fractions and Ratios Mastery Assignment Fractions and Ratios Chapter Test StudyForge Practice Questions
whole-number percents and percentage discounts	<ul style="list-style-type: none"> • using base 10 blocks, geoboard, 10x10 grid to represent whole number percents • finding missing part (whole or percentage) • $50\% = 1/2 = 0.5 = 50:100$ 	Chapter 5: Percentage	Percentage Mastery Assignment Percentage Chapter Test StudyForge Practice Questions
multiplication and division of decimals	<ul style="list-style-type: none"> • 0.125×3 or $7.2 \div 9$ • using base 10 block array • birchbark biting 	Chapter 1: Multiplication and Division	Multiplication and Division Mastery Assignment Multiplication and Division Chapter Test StudyForge Practice Questions

increasing and decreasing patterns, using expressions, tables, and graphs as functional relationships	<ul style="list-style-type: none"> limited to discrete points in the first quadrant visual patterning (e.g., colour tiles) Take 3 add 2 each time, $2n + 1$, and 1 more than twice a number all describe the pattern 3, 5, 7, ... graphing data on First Peoples language loss, effects of language intervention 	Chapter 6: Patterns	Patterns Mastery Assignment Patterns Chapter Test StudyForge Practice Questions Patterns Project
one-step equations with whole-number coefficients and solutions	<ul style="list-style-type: none"> preservation of equality (e.g., using a balance, algebra tiles) $3x = 12$, $x + 5 = 11$ 	Chapter 7: One-Step Equations	One-Step Equations Mastery Assignment One-Step Equations Chapter Test StudyForge Practice Questions Financial Literacy Project
perimeter of complex shapes	<ul style="list-style-type: none"> A complex shape is a group of shapes with no holes (e.g., use colour tiles, pattern blocks, tangrams). 	Chapter 8: Perimeter and Area	Perimeter and Area Mastery Assignment Perimeter and Area Chapter Test StudyForge Practice Questions
area of triangles, parallelograms, and trapezoids	<ul style="list-style-type: none"> grid paper explorations deriving formulas making connections between area of parallelogram and area of rectangle birchbark biting 	Chapter 8: Perimeter and Area	Perimeter and Area Mastery Assignment Perimeter and Area Chapter Test StudyForge Practice Questions

angle measurement and classification	<ul style="list-style-type: none"> • straight, acute, right, obtuse, reflex • constructing and identifying; include examples from local environment • estimating using 45°, 90°, and 180° as reference angles • angles of polygons • Small Number stories: Small Number and the Skateboard Park (mathcatcher.irmacs.sfu.ca/stories) 	Chapter 10: Angles	Angles Mastery Assignment Angles Chapter Test StudyForge Practice Questions
volume and capacity	<ul style="list-style-type: none"> • using cubes to build 3D objects and determine their volume • referents and relationships between units (e.g., cm^3, m^3, mL, L) • the number of coffee mugs that hold a litre • berry baskets, seaweed drying 	Chapter 9: Volume and Capacity	Volume and Capacity Mastery Assignment Volume and Capacity Chapter Test StudyForge Practice Questions Volume and Capacity Project
triangles	<ul style="list-style-type: none"> • scalene, isosceles, equilateral • right, acute, obtuse • classified regardless of orientation 	Chapter 10: Angles	Angles Mastery Assignment Angles Chapter Test StudyForge Practice Questions

combinations of transformations	<ul style="list-style-type: none"> 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 Use shapes in First Peoples art to integrate printmaking (e.g., Inuit, Northwest coastal First Nations, frieze work) (mathcentral.uregina.ca/RR/database/RR.09.01/mcdonald1/) 	Chapter 11: Transformations and Line Graphs	<p>Transformations and Line Graphs Mastery Assignment</p> <p>Transformations and Line Graphs Chapter Test</p> <p>StudyForge Practice Questions</p> <p>Transformations and Line Graphs Project</p>
Line graphs	<ul style="list-style-type: none"> 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 Lahal stick games 	Chapter 11: Transformations and Line Graphs	<p>Transformations and Line Graphs Mastery Assignment</p> <p>Transformations and Line Graphs Chapter Test</p> <p>StudyForge Practice Questions</p> <p>Transformations and Line Graphs Project</p>
single-outcome probability, both theoretical and experimental	<ul style="list-style-type: none"> 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 Lahal stick games 	Chapter 12: Probability	<p>Probability Mastery Assignment</p> <p>Probability Chapter Test</p> <p>StudyForge Practice Questions</p>

financial literacy — simple budgeting and consumer math	<ul style="list-style-type: none"> • informed decision making on saving and purchasing • How many weeks of allowance will it take to buy a bicycle? 	Chapter 7: One-Step Equations	One-Step Equations Mastery Assignment One-Step Equations Chapter Test StudyForge Practice Questions Financial Literacy Project
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- StudyForge videos include animated flash video objects that are designed to teach and explain the topics. Within these videos there are inquiry videos, helping students to think about the 'why' we learn these specific concepts, and there are GeoGebra applets that allow students to explore and discover the math themselves.
- The StudyForge lessons include practice questions for every lesson that are formative assessment – for the student to gauge if they understand the concepts presented to them. All practice questions are equipped with detailed solutions.