

# Mathematics

Key for "Province":

**Bold type – BC Big Ideas**

Regular type – BC content (K-9)

K-9 Curricular Competencies used throughout all topics: reasoning and analyzing, understanding and solving, communicating and representing

Topics	Gr	North American Division	Province:
Numbers and Operations	7	<i>Rational Numbers:</i> 7.NO.1 Apply and extend the four basic operations to rational numbers (7.NS.1,2,3)	<b>(7) Computational fluency and flexibility with numbers extend to operations with integers and decimals:</b> operations with integers and decimals.
		<i>Rational Numbers, cont:</i> 7.NO.2 Understand and apply properties of operations (7.NS.2)	<b>(7) Computational fluency and flexibility with numbers extend to operations with integers and decimals:</b> operations with integers and decimals.
		<i>Rational Numbers, cont:</i> 7.NO.3 Perform operations with numbers expressed in scientific notation, exponents, and square root	<b>(7) Computational fluency and flexibility with numbers extend to operations with integers and decimals:</b> operations with integers and decimals. <b>(8) Computational fluency and flexibility with numbers extend to operations with fractions:</b> perfect squares and cubes, square and cube roots.
		<i>Ratios/Proportions/Percentages:</i> 7.NO.4 Analyze and apply proportional relationships (7.RP.1,2,3)	<b>(7) Financial Literacy:</b> financial percentage <b>(8) Number represents, describes, and compares the quantities of ratios, rates, and percents:</b> percents less than 1 and greater than 100, and numerical proportional reasoning. <b>(8) Financial Literacy:</b> best buys
Operations and Algebraic Thinking	7	<i>Expressions/Equations/Inequalities:</i> 7.OAT.1 Use properties of operations to generate equivalent expressions (7.EE.1,2)	<b>(7) Computational fluency and flexibility with numbers extend to operations with integers and decimals:</b> operations with integers and decimals. <b>(7) Linear relations can be represented in many connected ways to identify regularities and make generalizations:</b> discrete linear relations, using expressions; two-step equations with whole-number coefficients, constants and solutions.
		<i>Expressions/Equations/Inequalities, cont:</i> 7.OAT.2 Solve real-life and mathematical problems using numerical and algebraic expressions and equations (7.EE.3,4)	<b>(7) Computational fluency and flexibility with numbers extend to operations with integers and decimals:</b> multiplication and division facts to 100; operations with integers and decimals; and relationships between decimals, fractions, ratios, and percents. <b>(7) Linear relations can be represented in many connected ways to identify regularities and make generalizations:</b> two-step equations with whole-number coefficients, constants and solutions.
		<i>Expressions/Equations/Inequalities, cont:</i> 7.OAT.3 Represent, graph, analyze, and generalize patterns, ratios, and inequalities using symbolic rules	<b>(7) Linear relations can be represented in many connected ways to identify regularities and make generalizations:</b> discrete linear relations, using expressions, tables, and graphs. <b>(8) Number represents, describes, and compares the quantities of ratios, rates, and percents:</b> numerical proportional reasoning.
Measurement	7	<i>Measurement Systems:</i> 7.M.1 Convert between a variety of standard/metric measures (e.g., in to cm, cm to in)	<b>(7) Linear relations can be represented in many connected ways to identify regularities and make generalizations:</b> discrete linear relations. <b>(7) Volume of rectangular prisms and cylinders.</b>
Geometry	7	<i>Figures:</i>	<b>(7) The constant ratio between the circumference and diameter of circles can be used to describe,</b>

		7.GEO.1 Draw, construct, and describe geometrical figures and identify the relationships between them (7.G.1,2,3)	<b>measure, and compare spatial relationships:</b> circumference and area of circles, and volume of rectangular prisms and cylinders. <b>(8) The relationship between surface area and volume of 3D objects can be used to describe, measure, and compare spatial relationships:</b> construction, views, and nets of 3D objects.
		<i>Geometrical Measurements:</i> 7.GEO.2 Solve real-world and mathematical problems involving angle measure, perimeter, area, surface area, and volume (7.G.4,5,6)	<b>(7) The constant ratio between the circumference and diameter of circles can be used to describe, measure, and compare spatial relationships:</b> circumference and area of circles, and volume of rectangular prisms and cylinders.
Data Analysis, Statistics, and Probability	7	<i>Statistics and Probability::</i> 7.DSP.1 Use random sampling to draw inferences about a population (7.SP.1,2)	<b>(7) Data from circle graphs can be used to illustrate proportion and to compare and interpret:</b> circle graphs, and experimental probability.
		<i>Statistics and Probability, cont:</i> 7.DSP.2 Draw informal comparative inferences about two populations (7.SP.3,4)	<b>(7) Data from circle graphs can be used to illustrate proportion and to compare and interpret:</b> circle graphs, and experimental probability.
		<i>Statistics and Probability, cont:</i> 7.DSP.3 Investigate chance processes and develop, use, and evaluate probability models (7.SP.5,6,7,8)	<b>(7) Data from circle graphs can be used to illustrate proportion and to compare and interpret:</b> cartesian coordinates and graphing, circle graphs, and experimental probability.