MATHEMATICS

YEAR 1 (GRADE 6)

	Unit 1	**Unit 2**	**Unit 3**	**Unit 4**	**Unit 5**
Unit Titles	**Ratios, Rates & Fractions, Oh My!**	**Make "Percents" of it all**	**E Squared**	**Geometry**	**Statistics**
Key Concept	Relationships	Logic	Relationships	Form	Logic
Related Concepts	Simplification Model	Simplification Representation	Model Representation	Quantity Space	Patterns Generalization
Global Context & Exploration	Identities & Relationships: human relationships including families, friends, communities and cultures	Globalization and Sustainability: the impact of decision making on humankind and the environment	Scientific and Technical Innovation: systems, models, methods; products, processes and solutions	Fairness and Development: sharing finite resources with other people and with other living things	Globalization and sustainability: explore the interconnectedness of human-made systems and communities
Learner Profiles	Thinker	Principled	Communicator	Inquirer	Reflective
Statement of Inquiry	Models allow us to simplify relationships.	Accurate representations lead to logical decisions impacting humankind.	Relationships can be demonstrated through models and representations to create products, processes and solutions.	Humans can analyze and manage the form and quantity of consumer products to share finite resources.	Patterns in data can be used to draw logical conclusions when analyzing human-made systems.
Inquiry Questions	F: How can we model multiplication and division with fractions? C: How do models give us information? D: Is there an ideal ratio in society?	F: How can we represent quantity using percents? C: How do percents help us understand and compare information? D: What is the best way to view data when comparing to make logical decisions?	F: What is the difference between expressions, equations, and inequalities? C: How do you represent mathematical situations? D: Do models and representations justify, prof, and/or determine the relationship?	F: How can you measure surface area and volume? What natural resources are consumed to create and place packaging materials? C: How can we use measurement, surface area, and volume to reduce the consumption of natural resources through packaging? D: Is it unethical for one company to use more packaging for their products than others?	F: How do you determine mean, median, and mode? How do you calculate inter-quartile range and mean absolute deviation? C: How do we choose the best measure of center? D: Is it fair to use average when making judgements?

YEAR 3 (GRADE 7)

	Unit1	Unit 2	Unit 3	Unit 4	Unit 5
Unit Titles	Number Systems	Ratios, Proportions, and Percent	Expressions, Equations and Inequalities	Probability and Statistics	Geometry
Key Concept (1)	Logic	Relationships	Logic	Logic	Form
Related Concepts (2)	Change Quantity	Equivalence Representation	Communicate Model	Justification Generalization	Measurement Space
Global Context & Exploration	Globalization and Sustainability -the impact of decision-making on humankind and the environment	Identities and Relationships -financial literacy	Identities and Relationships -personal, physical, mental, social and spiritual health	Fairness and Development -Fairness in games of chance; data driven decisions	Fairness and Development -sharing finite resources with other people and other living things
Learner Profiles	Thinker	Reflective	Balanced	Knowledgeable and Open-minded	Thinker
Statement of Inquiry	Logic can be used to explain a change in quantity in the environment.	Equivalent relationships can be used to increase financial literacy OR Make financial decisions OR impact financial understanding	Logical mathematical models can be used to create, modify, and communicate personal goals.	Logic is used to justify data driven decisions.	People must consider form, measurement, and space when using finite resources.
Inquiry Questions	F: How do we operate with rational numbers? C: How do you use logic to explain change in quantities? D: What has the largest impact on change in the environment?		F: How do we write, solve, graph, and interpret equations and inequalities? C: How can we use different mathematical models to communicate ideas? D: Do we need to set personal goals in order to be balanced and achieve success?	F: How do we use sampling to determine probability? C: How do we use probability to make informed decisions? D: Should all decisions be based on probability and statistics?	F: How can we measure the volume and surface area of 3D figures? C: How does form impact the surface area and volume? D: Do we have an ethical responsibility to share finite resources? Should the division of finite resources always be equal?

YEAR 5 (GRADE 8)

	Unit1	Unit 2	Unit 3	Unit 4
Unit Titles	Don't Be Irrational- Numbers Are Awesome	Expressions, Equations & Functions	Geometry- It's Hip 2 B Square	Statistics & Probability
Key Concept (1)	Identity	Logic	Logic	Relationships
Related Concepts (2)	Equivalence Representation	Model Pattern	Justification Measurement	Generalization Model
Global Context & Exploration	Identities and Relationships: students will explore identity	Globalization and Sustainability: Students will explore the interconnectedness of human-made systems and communities	Globalization and Sustainability: the impact of decision-making on humankind and the environment	Identities and Relationships: human relationships including families, friends, communities and cultures
Learner Profiles	Reflective	Thinker	Communicator	Inquirer
Statement of Inquiry	How we represent identity impacts perception of value.	Logical decisions are made using models and identifying patterns when analyzing human-made systems.	Humans justify decision that impact sustainability using logic	Mathematical relationships can model correlations that may produce generalizations about society.
Inquiry Questions	F: What is a perfect square? C: Why do we express numbers in different forms? D: Is identity fixed?	F: What is a variable? C: How does identifying patterns lead us to a solution? D: What is the "best" method for making decisions?	F: What is sustainability? C: How can we use logic to justify resource and space use? D: What is the ideal size home/living space?	F: What does a positive/negative correlation mean? C: How do we make generalizations about society? D: Does data and/or evidence make claims more valid?