Program: Energy Revealed	Grade 6 – Ontario Math Curriculum Connections	

Activity Name	Organizing Idea	Learning Outcome
Activity: Knowing Energy: Stair Climb	B. Number: B2. Operations	B2.1 - use the properties of operations, and the relationships between operations, to solve problems involving whole numbers, decimal numbers, fractions, ratios, rates, and whole number percents, including those requiring multiple steps or multiple operations
Activity: Knowing Energy: Tea at Home	B. Number: B2. Operations	B2.1 - use the properties of operations, and the relationships between operations, to solve problems involving whole numbers, decimal numbers, fractions, ratios, rates, and whole number percents, including those requiring multiple steps or multiple operations
Activity: Knowing Energy: Race to a kWh	B. Number: B2. Operations	B2.1 - use the properties of operations, and the relationships between operations, to solve problems involving whole numbers, decimal numbers, fractions, ratios, rates, and whole number percents, including those requiring multiple steps or multiple operations
Activity: Knowing Energy: How Intense is Your Electricity Usage?	B. Number: B2. Operations	B2.1 - use the properties of operations, and the relationships between operations, to solve problems involving whole numbers, decimal numbers, fractions, ratios, rates, and whole number percents, including those requiring multiple steps or multiple operations
Activity: Knowing Energy: The Electricity Grid	N/A	
Activity: Knowing Energy: Renewables	N/A	
Activity: Knowing Energy: The Big Picture	N/A	
Activity: All About the Baseline	Grade 7-12	
Activity: Can You Observe How You Conserve?	N/A	
Activity: Energy Hogs	C. Algebra: C1. Patterns and Relationships	C1.1 - identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and specify which growing patterns are linear
		C1.2 - create and translate repeating, growing, and shrinking patterns using various representations, including tables of values, graphs, and, for linear growing patterns, algebraic expressions and equations
		C1.3 - determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in repeating, growing, and shrinking patterns, and use algebraic representations of the pattern rules to solve for unknown values in linear growing patterns

Activity: Extra Energy Investigation	C. Algebra: C1. Patterns and Relationships	C1.1 - identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and specify which growing patterns are linear
		C1.2 - create and translate repeating, growing, and shrinking patterns using various representations, including tables of values, graphs, and, for linear growing patterns, algebraic expressions and equations
		C1.3 - determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in repeating, growing, and shrinking patterns, and use algebraic representations of the pattern rules to solve for unknown values in linear growing patterns
Activity: How Smart is Your Smart Board?	**Grade 7-12**	
Activity: Imagination Station	C. Algebra: C1. Patterns and Relationships	C1.1 - identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and specify which growing patterns are linear
		C1.2 - create and translate repeating, growing, and shrinking patterns using various representations, including tables of values, graphs, and, for linear growing patterns, algebraic expressions and equations
		C1.3 - determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in repeating, growing, and shrinking patterns, and use algebraic representations of the pattern rules to solve for unknown values in linear growing patterns
Activity: Small Appliance Energy Reliance	D. Data: D1. Data Literacy	D1.2 - collect qualitative data and discrete and continuous quantitative data to answer questions of interest about a population, and organize the sets of data as appropriate, including using intervals
		D1.3 - select from among a variety of graphs, including histograms and broken-line graphs, the type of graph best suited to represent various sets of data; display the data in the graphs with proper sources, titles, and labels, and appropriate scales; and justify their choice of graphs
		D1.6 - analyse different sets of data presented in various ways, including in histograms and brokenline graphs and in misleading graphs, by asking and answering questions about the data, challenging preconceived notions, and drawing conclusions, then make convincing arguments and informed decisions
Activity: Start Me Up!	**N/A**	
Activity: Take a Look	D. Data: D1. Data Literacy	D1.2 - collect qualitative data and discrete and continuous quantitative data to answer questions of interest about a population, and organize the sets of data as appropriate, including using intervals
		D1.3 - select from among a variety of graphs, including histograms and broken-line graphs, the type of graph best suited to represent various sets of data; display the data in the graphs with proper sources, titles, and labels, and appropriate scales; and justify their choice of graphs
		D1.6 - analyse different sets of data presented in various ways, including in histograms and brokenline graphs and in misleading graphs, by asking and answering questions about the data, challenging preconceived notions, and drawing conclusions, then make convincing arguments and informed decisions

Activity: Total Energy vs Total Cost	**Grade 7-12**	
Activity: Understanding Energy Efficiency in Your School	**Grade 7-12**	
Activity: Community Walk	**N/A**	
Activity: School Energy Audit	**Grade 7-12**	
Activity: Energy Efficient Lighting	B. Number: B1. Number Sense	B1.1 - read and represent whole numbers up to and including one million, using appropriate tools and strategies, and describe various ways they are used in everyday life
		B1.2 - read and represent integers, using a variety of tools and strategies, including horizontal and vertical number lines
		B1.4 - read, represent, compare, and order decimal numbers up to thousandths, in various contexts
		B1.5 - round decimal numbers, both terminating and repeating, to the nearest tenth, hundredth, or whole number, as applicable, in various contexts
	B. Number: B2. Operations	B2.1 - use the properties of operations, and the relationships between operations, to solve problems involving whole numbers, decimal numbers, fractions, ratios, rates, and whole number percents, including those requiring multiple steps or multiple operations
		B2.7 - represent and solve problems involving the multiplication of three-digit whole numbers by decimal tenths, using algorithms
		B2.8 - represent and solve problems involving the division of three-digit whole numbers by decimal tenths, using appropriate tools, strategies, and algorithms, and expressing remainders as appropriate
	C. Algebra: C1. Patterns and Relationships	C1.1 - identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and specify which growing patterns are linear
	D. Data: D1. Data Literacy	D1.2 - collect qualitative data and discrete and continuous quantitative data to answer questions of interest about a population, and organize the sets of data as appropriate, including using intervals
		D1.5 - determine the range as a measure of spread and the measures of central tendency for various data sets, and use this information to compare two or more data sets
	E. Spatial Sense: E2. Measurement	E2.1 - measure length, area, mass, and capacity using the appropriate metric units, and solve problems that require converting smaller units to larger ones and vice versa

Activity	Strand	Expectations
Activity: Find the Phantom Load	D. Data: D1. Data Literacy	D1.2 - collect qualitative data and discrete and continuous quantitative data to answer questions of interest about a population, and organize the sets of data as appropriate, including using intervals
		D1.3 - select from among a variety of graphs, including histograms and broken-line graphs, the type of graph best suited to represent various sets of data; display the data in the graphs with proper sources, titles, and labels, and appropriate scales; and justify their choice of graphs
		D1.6 - analyse different sets of data presented in various ways, including in histograms and brokenline graphs and in misleading graphs, by asking and answering questions about the data, challenging preconceived notions, and drawing conclusions, then make convincing arguments and informed decisions
Activity: Home Energy Audit	**N/A**	
Activity: Watchers and Seekers	C. Algebra: C1. Patterns and Relationships	C1.1 - identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and specify which growing patterns are linear
		C1.2 - create and translate repeating, growing, and shrinking patterns using various representations, including tables of values, graphs, and, for linear growing patterns, algebraic expressions and equations
		C1.3 - determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in repeating, growing, and shrinking patterns, and use algebraic representations of the pattern rules to solve for unknown values in linear growing patterns
Activity: Back to the Future	B. Number: B1. Number Sense	B1.1 - read and represent whole numbers up to and including one million, using appropriate tools and strategies, and describe various ways they are used in everyday life
		B1.2 - read and represent integers, using a variety of tools and strategies, including horizontal and vertical number lines
		B1.4 - read, represent, compare, and order decimal numbers up to thousandths, in various contexts
		B1.6 - describe relationships and show equivalences among fractions and decimal numbers up to thousandths, using appropriate tools and drawings, in various contexts
	C. Algebra: C1. Patterns and Relationships	C1.1 - identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and specify which growing patterns are linear
	D. Data: D1. Data Literacy	D1.5 - determine the range as a measure of spread and the measures of central tendency for various data sets, and use this information to compare two or more data sets

Activity	Strand	Expectation
Activity: Changing Our Ways	B. Number: B1. Number Sense	B1.6 - describe relationships and show equivalences among fractions and decimal numbers up to thousandths, using appropriate tools and drawings, in various contexts
	C. Algebra: C1. Patterns and Relationships	C1.1 - identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and specify which growing patterns are linear
	D. Data: D1. Data Literacy	D1.2 - collect qualitative data and discrete and continuous quantitative data to answer questions of interest about a population, and organize the sets of data as appropriate, including using intervals
		D1.5 - determine the range as a measure of spread and the measures of central tendency for various data sets, and use this information to compare two or more data sets
	E. Spatial Sense: E2. Measurement	E2.1 - measure length, area, mass, and capacity using the appropriate metric units, and solve problems that require converting smaller units to larger ones and vice versa
Activity 27: Exploring Our Energy Ethics	**N/A**	
Activity: Once Upon a Bike	C. Algebra: C1. Patterns and Relationships	C1.1 - identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and specify which growing patterns are linear
Activity: Puzzling Over Energy Issues	**N/A**	
Activity: Ride, Roll and Stroll	B. Number: B1. Number Sense	B1.6 - describe relationships and show equivalences among fractions and decimal numbers up to thousandths, using appropriate tools and drawings, in various contexts
	B. Number: B2. Operations	B2.1 - use the properties of operations, and the relationships between operations, to solve problems involving whole numbers, decimal numbers, fractions, ratios, rates, and whole number percents, including those requiring multiple steps or multiple operations
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	E. Spatial Sense: E2. Measurement	E2.1 - measure length, area, mass, and capacity using the appropriate metric units, and solve problems that require converting smaller units to larger ones and vice versa

Activity: Speak for the Trees	**Grade 7-12**	
Activity: Taking the Lead	**N/A**	
Activity: Walk a Mile	B. Number: B1. Number Sense	B1.1 - read and represent whole numbers up to and including one million, using appropriate tools and strategies, and describe various ways they are used in everyday life
		B1.2 - read and represent integers, using a variety of tools and strategies, including horizontal and vertical number lines
		B1.4 - read, represent, compare, and order decimal numbers up to thousandths, in various contexts
		B1.5 - round decimal numbers, both terminating and repeating, to the nearest tenth, hundredth, or whole number, as applicable, in various contexts
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	E. Spatial Sense: E2. Measurement	E2.1 - measure length, area, mass, and capacity using the appropriate metric units, and solve problems that require converting smaller units to larger ones and vice versa