

Ontario Mathematics

EP Curriculum Map

Note: the curriculum expectations of Strand A are covered throughout the lessons in strands B through F for Grades 3-9.

Grade 6 Mathematics

B. Number

B1. Number Sense

Rational Numbers

Specific Expectations	Lesson Title
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	Whole Numbers and Place Values
B1.2. read and represent integers, using a variety of tools and strategies, including horizontal and vertical number lines	Integers
B1.3. compare and order integers, decimal numbers, and fractions, separately and in combination, in various contexts	Comparing Integers, Decimal Numbers, and Fractions

Fractions, Decimals, and Percents

Specific Expectations	Lesson Title
B1.4. read, represent, compare, and order decimal numbers up to thousandths, in various contexts	Decimal Numbers
B1.5. round decimal numbers, both terminating and repeating, to the nearest tenth, hundredth, or whole number, as applicable, in various contexts	Rounding Decimal Numbers
B1.6. describe relationships and show equivalences among fractions and decimal numbers up to thousandths, using appropriate tools and drawings, in various contexts	Fractions and Decimals

B2. Operations

Properties and Relationships

Specific Expectations	Lesson Title
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	Properties of Operations
B2.2. understand the divisibility rules and use them to determine whether numbers are divisible by 2, 3, 4, 5, 6, 8, 9, and 10	Divisibility Rules

Mental Math

Specific Expectations	Lesson Title
B2.3. use mental math strategies to calculate percents of whole numbers, including 1%, 5%, 10%, 15%, 25%, and 50%, and explain the strategies used	Percents of Whole Numbers

Addition and Subtraction

Specific Expectations	Lesson Title
B2.4. represent and solve problems involving the addition and subtraction of whole numbers and decimal numbers, using estimation and algorithms	Addition and Subtraction of Whole Numbers and Decimals
B2.5. add and subtract fractions with like and unlike denominators, using appropriate tools, in various contexts	Addition & Subtraction of Fractions

Multiplication and Division

Specific Expectations	Lesson Title
B2.6. represent composite numbers as a product of their prime factors, including through the use of factor trees	Composite Numbers and Prime Factors
B2.7. represent and solve problems involving the multiplication of three-digit whole numbers by decimal tenths, using algorithms	Multiplication by Decimal Tenths
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	Division by Decimal Tenths
B2.9. multiply whole numbers by proper fractions, using appropriate tools and strategies	Multiplication with Fractions
B2.10. divide whole numbers by proper fractions, using appropriate tools and strategies	Division with Fractions
B2.11. represent and solve problems involving the division of decimal numbers up to thousandths by whole numbers up to 10, using appropriate tools and strategies	Division of Decimal Numbers
B2.12. solve problems involving ratios, including percents and rates, using appropriate tools and strategies	Ratios, Rates & Percents

C. Algebra

C1. Patterns and Relationships

Patterns

Specific Expectations	Lesson Title
C1.1. identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and specify which growing patterns are linear	Identifying Repeating, Growing, and Shrinking Patterns
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	Creating Repeating, Growing and Shrinking Patterns
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	Pattern Rules
C1.4. create and describe patterns to illustrate relationships among whole numbers and decimal numbers	Patterns in Whole Numbers and Decimal Numbers

C2. Equations and Inequalities

Variables and Expressions

Specific Expectations	Lesson Title
C2.1. add monomials with a degree of 1 that involve whole numbers, using tools	Monomials
C2.2. evaluate algebraic expressions that involve whole numbers and decimal tenths	Algebraic Expressions

Equalities and Inequalities

Specific Expectations	Lesson Title
C2.3. solve equations that involve multiple terms and whole numbers in various contexts, and verify solutions	Solving Equations
C2.4. solve inequalities that involve two operations and whole numbers up to 100, and verify and graph the solutions	Solving Inequalities

C3. Coding

Coding Skills

Specific Expectations	Lesson Title
C3.1. solve problems and create computational representations of mathematical situations by writing and executing efficient code, including code that involves conditional statements and other control structures	Writing and Executing Code: Conditional Statements and Control Structures
C3.2. read and alter existing code, including code that involves conditional statements and other control structures, and describe how changes to the code affect the outcomes and the efficiency of the code	Reading and Altering Code: Conditional Statements and Control Structures

C4. Mathematical Modelling

Specific Expectations	Lessons
This overall expectation has no specific expectations. Mathematical modelling is an iterative and interconnected process that is applied to various contexts, allowing students to bring in learning from other strands. Students' demonstration of the process of mathematical modelling, as they apply concepts and skills learned in other strands, is assessed and evaluated.	<i>EP supports this overall expectation by integrating modelling activities throughout our resources. These activities encourage students to investigate, explore and model situations using relevant mathematical skills and concepts.</i>

D. Data

D1. Data Literacy

Data Collection and Organization

Specific Expectations	Lesson Title
D1.1. describe the difference between discrete and continuous data, and provide examples of each	Discrete and Continuous Data
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	Collecting Data

Data Visualization

Specific Expectations	Lesson Title
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	Graphing Data
D1.4. create an infographic about a data set, representing the data in appropriate ways, including in tables, histograms, and broken-line graphs, and incorporating any other relevant information that helps to tell a story about the data	Infographics

Data Analysis

Specific Expectations	Lesson Title
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	Range & Measures of Central Tendency
D1.6. analyse different sets of data presented in various ways, including in histograms and broken-line 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	Analysing Data

D2. Probability

Probability

Specific Expectations	Lesson Title
D2.1. use fractions, decimals, and percents to express the probability of events happening, represent this probability on a probability line, and use it to make predictions and informed decisions	Probability and Probability Lines
D2.2. determine and compare the theoretical and experimental probabilities of two independent events happening	Theoretical and Experimental Probabilities

E. Spatial Sense

E1. Geometric and Spatial Reasoning

Geometric Reasoning

Specific Expectations	Lesson Title
E1.1. create lists of the geometric properties of various types of quadrilaterals, including the properties of the diagonals, rotational symmetry, and line symmetry	Geometric Properties of Quadrilaterals
E1.2. construct three-dimensional objects when given their top, front, and side views	Three-Dimensional Objects

Location and Movement

Specific Expectations	Lesson Title
E1.3. plot and read coordinates in all four quadrants of a Cartesian plane, and describe the translations that move a point from one coordinate to another	Cartesian Plane
E1.4. describe and perform combinations of translations, reflections, and rotations up to 360° on a grid, and predict the results of these transformations	Transformations on a Grid

E2. Measurement

The Metric System

Specific Expectations	Lesson Title
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	Measurement and Units of Measure

Angles

Specific Expectations	Lesson Title
E2.2. use a protractor to measure and construct angles up to 360° , and state the relationship between angles that are measured clockwise and those that are measured counterclockwise	Angles & Protractors
E2.3. use the properties of supplementary angles, complementary angles, opposite angles, and interior and exterior angles to solve for unknown angle measures	Properties of Angles

Area and Surface Area

Specific Expectations	Lesson Title
E2.4. determine the areas of trapezoids, rhombuses, kites, and composite polygons by decomposing them into shapes with known areas	Trapezoids, Rhombuses, Kites and Composite Shapes
E2.5. create and use nets to demonstrate the relationship between the faces of prisms and pyramids and their surface areas	Prisms and Pyramids
E2.6. determine the surface areas of prisms and pyramids by calculating the areas of their two-dimensional faces and adding them together	Surface Area of Prisms and Pyramids

F. Financial Literacy

F1. Money and Finances

Money Concepts, Financial Management and Consumer and Civic Awareness

Specific Expectations	Lesson Title
F1.1. describe the advantages and disadvantages of various methods of payment that can be used to purchase goods and services	Methods of Payment
F1.2. identify different types of financial goals, including earning and saving goals, and outline some key steps in achieving them	Financial Goals
F1.3. identify and describe various factors that may help or interfere with reaching financial goals	Factors Affecting Financial Goals
F1.4. explain the concept of interest rates, and identify types of interest rates and fees associated with different accounts and loans offered by various banks and other financial institutions	Interest Rates
F1.5. describe trading, lending, borrowing, and donating as different ways to distribute financial and other resources among individuals and organizations	Distributing Financial Resources

Grade 7 Mathematics

B. Number

B1. Number Sense

Rational Numbers

Specific Expectations	Lesson Title
B1.1. represent and compare whole numbers up to and including one billion, including in expanded form using powers of ten, and describe various ways they are used in everyday life	Whole Numbers and Powers of Ten
B1.2. identify and represent perfect squares, and determine their square roots, in various contexts	Perfect Squares and Square Roots
B1.3. read, represent, compare, and order rational numbers, including positive and negative fractions and decimal numbers to thousandths, in various contexts	Rational Numbers

Fractions, Decimals, and Percents

Specific Expectations	Lesson Title
B1.4. use equivalent fractions to simplify fractions, when appropriate, in various contexts	Equivalent Fractions
B1.5. generate fractions and decimal numbers between any two quantities	Fraction or Decimal Between Two Quantities
B1.6. round decimal numbers to the nearest tenth, hundredth, or whole number, as applicable, in various contexts	Rounding Decimal Numbers
B1.7. convert between fractions, decimal numbers, and percents, in various contexts	Fractions, Decimals and Percents

B2. Operations

Properties and Relationships

Specific Expectations	Lesson Title
B2.1. use the properties and order of operations, and the relationships between operations, to solve problems involving whole numbers, decimal numbers, fractions, ratios, rates, and percents, including those requiring multiple steps or multiple operations	Properties of Operations: Multi-Step Problems

Math Facts

Specific Expectations	Lesson Title
B2.2. understand and recall commonly used percents, fractions, and decimal equivalents	Common Percents, Fractions and Decimals

Mental Math

Specific Expectations	Lesson Title
B2.3. use mental math strategies to increase and decrease a whole number by 1%, 5%, 10%, 25%, 50%, and 100%, and explain the strategies used	Increasing or Decreasing Whole Numbers by a Percent

Addition and Subtraction

Specific Expectations	Lesson Title
B2.4. use objects, diagrams, and equations to represent, describe, and solve situations involving addition and subtraction of integers	Addition and Subtraction of Integers
B2.5. add and subtract fractions, including by creating equivalent fractions, in various contexts	Addition and Subtraction of Fractions

Multiplication and Division

Specific Expectations	Lesson Title
B2.6. determine the greatest common factor for a variety of whole numbers up to 144 and the lowest common multiple for two and three whole numbers	Greatest Common Factor and Lowest Common Multiple
B2.7. evaluate and express repeated multiplication of whole numbers using exponential notation, in various contexts	Exponential Notation
B2.8. multiply and divide fractions by fractions, using tools in various contexts	Multiplying and Dividing Fractions
B2.9. multiply and divide decimal numbers by decimal numbers, in various contexts	Multiplying and Dividing Decimals
B2.10. identify proportional and non-proportional situations and apply proportional reasoning to solve problems	Proportional Reasoning

C. Algebra

C1. Patterns and Relationships

Patterns

Specific Expectations	Lesson Title
C1.1. identify and compare a variety of repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and compare linear growing patterns on the basis of their constant rates and initial values	Identifying Repeating, Growing, and Shrinking Patterns
C1.2. create and translate repeating, growing, and shrinking patterns involving whole numbers and decimal numbers using various representations, including algebraic expressions and equations for linear growing patterns	Creating Repeating, Growing, and Shrinking Patterns
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 involving whole numbers and decimal numbers, and use algebraic representations of the pattern rules to solve for unknown values in linear growing patterns	Pattern Rules
C1.4. create and describe patterns to illustrate relationships among integers	Patterns in Integers

C2. Equations and Inequalities

Variables and Expressions

Specific Expectations	Lesson Title
C2.1. add and subtract monomials with a degree of 1 that involve whole numbers, using tools	Adding and Subtracting Monomials
C2.2. evaluate algebraic expressions that involve whole numbers and decimal numbers	Algebraic Expressions

Equalities and Inequalities

Specific Expectations	Lesson Title
C2.3. solve equations that involve multiple terms, whole numbers, and decimal numbers in various contexts, and verify solutions	Solving Equations
C2.4. solve inequalities that involve multiple terms and whole numbers, and verify and graph the solutions	Solving Inequalities

C3. Coding

Coding Skills

Specific Expectations	Lesson Title
C3.1. solve problems and create computational representations of mathematical situations by writing and executing efficient code, including code that involves events influenced by a defined count and/or sub-program and other control structures	Writing and Executing Code: Counts and Subprograms
C3.2. read and alter existing code, including code that involves events influenced by a defined count and/or sub-program and other control structures, and describe how changes to the code affect the outcomes and the efficiency of the code	Reading and Altering Code: Counts and Subprograms

C4. Mathematical Modelling

Specific Expectations	Lessons
C4.1. This overall expectation has no specific expectations. Mathematical modelling is an iterative and interconnected process that is applied to various contexts, allowing students to bring in learning from other strands. Students' demonstration of the process of mathematical modelling, as they apply concepts and skills learned in other strands, is assessed and evaluated.	<i>EP supports this overall expectation by integrating modelling activities throughout our resources. These activities encourage students to investigate, explore and model situations using relevant mathematical skills and concepts.</i>

D. Data

D1. Data Literacy

Data Collection and Organization

Specific Expectations	Lesson Title
D1.1. explain why percentages are used to represent the distribution of a variable for a population or sample in large sets of data, and provide examples	Percents and Distribution
D1.2. collect qualitative data and discrete and continuous quantitative data to answer questions of interest, and organize the sets of data as appropriate, including using percentages	Collecting and Organizing Data

Data Visualization

Specific Expectations	Lesson Title
D1.3. select from among a variety of graphs, including circle 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	Graphing Data
D1.4. create an infographic about a data set, representing the data in appropriate ways, including in tables and circle graphs, and incorporating any other relevant information that helps to tell a story about the data	Infographics

Data Analysis

Specific Expectations	Lesson Title
D1.5. determine the impact of adding or removing data from a data set on a measure of central tendency, and describe how these changes alter the shape and distribution of the data	Measure of Central Tendency: Changing Data
D1.6. analyse different sets of data presented in various ways, including in circle 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	Analysing Data

D2. Probability

Probability

Specific Expectations	Lesson Title
D2.1. describe the difference between independent and dependent events, and explain how their probabilities differ, providing examples	Independent and Dependent Events
D2.2. determine and compare the theoretical and experimental probabilities of two independent events happening and of two dependent events happening	Theoretical and Experimental Probabilities

E. Spatial Sense

E1. Geometric and Spatial Reasoning

Geometric Reasoning

Specific Expectations	Lesson Title
E1.1. describe and classify cylinders, pyramids, and prisms according to their geometric properties, including plane and rotational symmetry	Cylinders, Pyramids, and Prisms
E1.2. draw top, front, and side views, as well as perspective views, of objects and physical spaces, using appropriate scales	Drawing Different Views of an Object

Location and Movement

Specific Expectations	Lesson Title
E1.3. perform dilations and describe the similarity between the image and the original shape	Dilations
E1.4. describe and perform translations, reflections, and rotations on a Cartesian plane, and predict the results of these transformations	Translations, Reflections and Rotations on a Cartesian Plane

E2. Measurement

The Metric System

Specific Expectations	Lesson Title
E2.1. describe the differences and similarities between volume and capacity, and apply the relationship between millilitres (mL) and cubic centimetres (cm ³) to solve problems	Volume and Capacity
E2.2. solve problems involving perimeter, area, and volume that require converting from one metric unit of measurement to another	Problem Solving With Metric Units

Circles

Specific Expectations	Lesson Title
E2.3. use the relationships between the radius, diameter, and circumference of a circle to explain the formula for finding the circumference and to solve related problems	Radius, Diameter and Circumference
E2.4. construct circles when given the radius, diameter, or circumference	Constructing Circles
E2.5. show the relationships between the radius, diameter, and area of a circle, and use these relationships to explain the formula for measuring the area of a circle and to solve related problems	Area of a Circle

Volume and Surface Area

Specific Expectations	Lesson Title
E2.6. represent cylinders as nets and determine their surface area by adding the areas of their parts	Surface Area of Cylinders
E2.7. show that the volume of a prism or cylinder can be determined by multiplying the area of its base by its height, and apply this relationship to find the area of the base, volume, and height of prisms and cylinders when given two of the three measurements	Volume: Prisms and Cylinders

F. Financial Literacy

F1. Money and Finances

Money Concepts

Specific Expectations	Lesson Title
F1.1. identify and compare exchange rates, and convert foreign currencies to Canadian dollars and vice versa	Exchange Rates

Financial Management

Specific Expectations	Lesson Title
F1.2. identify and describe various reliable sources of information that can help with planning for and reaching a financial goal	Planning and Achieving Financial Goals: Reliable Sources
F1.3. create, track, and adjust sample budgets designed to meet longer-term financial goals for various scenarios	Budgets and Long Term Financial Goals
F1.4. identify various societal and personal factors that may influence financial decision making, and describe the effects that each might have	Financial Decision Making

Consumer and Civic Awareness

Specific Expectations	Lesson Title
F1.5. explain how interest rates can impact savings, investments, and the cost of borrowing to pay for goods and services over time	Interest Rates: Savings, Investments and the Cost of Borrowing
F1.6. compare interest rates and fees for different accounts and loans offered by various financial institutions, and determine the best option for different scenarios	Comparing Interest Rates

Grade 8 Mathematics

B. Number

B1. Number Sense

Rational and Irrational Numbers

Specific Expectations	Lesson Title
B1.1. represent and compare very large and very small numbers, including through the use of scientific notation, and describe various ways they are used in everyday life	Large and Small Numbers
B1.2. describe, compare, and order numbers in the real number system (rational and irrational numbers), separately and in combination, in various contexts	The Real Number System
B1.3. estimate and calculate square roots, in various contexts	Square Roots

Fractions, Decimals, and Percents

Specific Expectations	Lesson Title
B1.4. use fractions, decimal numbers, and percents, including percents of more than 100% or less than 1%, interchangeably and flexibly to solve a variety of problems	Fractions, Decimals, and Percents

B2. Operations

Properties and Relationships

Specific Expectations	Lesson Title
B2.1. use the properties and order of operations, and the relationships between operations, to solve problems involving rational numbers, ratios, rates, and percents, including those requiring multiple steps or multiple operations	Properties of Operations: Multi-Step Problems

Math Facts

Specific Expectations	Lesson Title
B2.2. understand and recall commonly used square numbers and their square roots	Common Square Numbers and Square Roots

Mental Math

Specific Expectations	Lesson Title
B2.3. use mental math strategies to multiply and divide whole numbers and decimal numbers up to thousandths by powers of ten, and explain the strategies used	Multiplying and Dividing by Powers of Ten

Addition and Subtraction

Specific Expectations	Lesson Title
B2.4. add and subtract integers, using appropriate strategies, in various contexts	Adding Integers Subtracting Integers
B2.5. add and subtract fractions, using appropriate strategies, in various contexts	Adding and Subtracting Fractions

Multiplication and Division

Specific Expectations	Lesson Title
B2.6. multiply and divide fractions by fractions, as well as by whole numbers and mixed numbers, in various contexts	Multiplying and Dividing Fractions
B2.7. multiply and divide integers, using appropriate strategies, in various contexts	Multiplying and Dividing Integers
B2.8. compare proportional situations and determine unknown values in proportional situations, and apply proportional reasoning to solve problems in various contexts	Proportional Relationships

C. Algebra

C1. Patterns and Relationships

Patterns

Specific Expectations	Lesson Title
C1.1. identify and compare a variety of repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and compare linear growing and shrinking patterns on the basis of their constant rates and initial values	Identifying Repeating, Growing, and Shrinking Patterns
C1.2. create and translate repeating, growing, and shrinking patterns involving rational numbers using various representations, including algebraic expressions and equations for linear growing and shrinking patterns	Creating Repeating, Growing, and Shrinking Patterns
C1.3. determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in growing and shrinking patterns involving rational numbers, and use algebraic representations of the pattern rules to solve for unknown values in linear growing and shrinking patterns	Pattern Rules
C1.4. create and describe patterns to illustrate relationships among rational numbers	Patterns in Rational Numbers

C2. Equations and Inequalities

Variables and Expressions

Specific Expectations	Lesson Title
C2.1. add and subtract monomials with a degree of 1, and add binomials with a degree of 1 that involve integers, using tools	Adding and Subtracting Monomials and Binomial
C2.2. evaluate algebraic expressions that involve rational numbers	Algebraic Expressions

Equalities and Inequalities

Specific Expectations	Lesson Title
C2.3. solve equations that involve multiple terms, integers, and decimal numbers in various contexts, and verify solutions	Solving Equations
C2.4. solve inequalities that involve integers, and verify and graph the solutions	Solving Inequalities

C3. Coding

Coding Skills

Specific Expectations	Lesson Title
C3.1. solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves the analysis of data in order to inform and communicate decisions	Writing and Executing Code: Analysing Data
C3.2. read and alter existing code involving the analysis of data in order to inform and communicate decisions, and describe how changes to the code affect the outcomes and the efficiency of the code	Reading and Altering Code: Analysing Data

C4. Mathematical Modelling

Specific Expectations	Lessons
C4.1. This overall expectation has no specific expectations. Mathematical modelling is an iterative and interconnected process that is applied to various contexts, allowing students to bring in learning from other strands. Students' demonstration of the process of mathematical modelling, as they apply concepts and skills learned in other strands, is assessed and evaluated.	<i>EP supports this overall expectation by integrating modelling activities throughout our resources. These activities encourage students to investigate, explore and model situations using relevant mathematical skills and concepts.</i>

D. Data

D1. Data Literacy

Data Collection and Organization

Specific Expectations	Lesson Title
D1.1. identify situations involving one-variable data and situations involving two-variable data, and explain when each type of data is needed	One- and Two-Variable Data
D1.2. collect continuous data to answer questions of interest involving two variables, and organize the data sets as appropriate in a table of values	Two Variable Continuous Data

Data Visualization

Specific Expectations	Lesson Title
D1.3. select from among a variety of graphs, including scatter plots, 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	Displaying Data in Graphs
D1.4. create an infographic about a data set, representing the data in appropriate ways, including in tables and scatter plots, and incorporating any other relevant information that helps to tell a story about the data	Infographics

Data Analysis

Specific Expectations	Lesson Title
D1.5. use mathematical language, including the terms “strong”, “weak”, “none”, “positive”, and “negative”, to describe the relationship between two variables for various data sets with and without outliers	Describing the Relationship between Two Variables
D1.6. analyse different sets of data presented in various ways, including in scatter plots 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	Analyzing Data

D2. Probability

Probability

Specific Expectations	Lesson Title
D2.1. solve various problems that involve probability, using appropriate tools and strategies, including Venn and tree diagrams	Probability Problems: Venn and Tree Diagrams
D2.2. determine and compare the theoretical and experimental probabilities of multiple independent events happening and of multiple dependent events happening	Theoretical and Experimental Probabilities

E. Spatial Sense

E1. Geometric and Spatial Reasoning

Geometric Reasoning

Specific Expectations	Lesson Title
E1.1. identify geometric properties of tessellating shapes and identify the transformations that occur in the tessellations	Tessellations
E1.2. make objects and models using appropriate scales, given their top, front, and side views or their perspective views	Constructing Objects and Models
E1.3. use scale drawings to calculate actual lengths and areas, and reproduce scale drawings at different ratios	Scale Drawings

Location and Movement

Specific Expectations	Lesson Title
E1.4. describe and perform translations, reflections, rotations, and dilations on a Cartesian plane, and predict the results of these transformations	Transformations on a Cartesian Plane

E2. Measurement

The Metric System

Specific Expectations	Lesson Title
E2.1. represent very large (mega, giga, tera) and very small (micro, nano, pico) metric units using models, base ten relationships, and exponential notation	Large and Small Metric Units

Lines and Angles

Specific Expectations	Lesson Title
E2.2. solve problems involving angle properties, including the properties of intersecting and parallel lines and of polygons	Angle Properties

Length, Area, and Volume

Specific Expectations	Lesson Title
E2.3. solve problems involving the perimeter, circumference, area, volume, and surface area of composite two-dimensional shapes and three-dimensional objects, using appropriate formulas	Composite Shapes and Objects
E2.4. describe the Pythagorean relationship using various geometric models, and apply the theorem to solve problems involving an unknown side length for a given right triangle	Pythagorean Relationship: Right Triangles

F. Financial Literacy

F1. Money and Finances

Money Concepts

Specific Expectations	Lesson Title
F1.1. describe some advantages and disadvantages of various methods of payment that can be used when dealing with multiple currencies and exchange rates	Methods of Payment

Financial Management

Specific Expectations	Lesson Title
F1.2. create a financial plan to reach a long-term financial goal, accounting for income, expenses, and tax implications	Financial Planning For Long-Term Goals
F1.3. identify different ways to maintain a balanced budget, and use appropriate tools to track all income and spending, for several different scenarios	Maintaining a Balanced Budget
F1.4. determine the growth of simple and compound interest at various rates using digital tools, and explain the impact interest has on long-term financial planning	Growth of Simple and Compound Interest

Consumer and Civic Awareness

Specific Expectations	Lesson Title
F1.5. compare various ways for consumers to get more value for their money when spending, including taking advantage of sales and customer loyalty and incentive programs, and determine the best choice for different scenarios	Getting More Value for Your Money
F1.6. compare interest rates, annual fees, and rewards and other incentives offered by various credit card companies and consumer contracts to determine the best value and the best choice for different scenarios	Credit Cards and Consumer Contracts