## manathology

## Ontario Ministry Sample Long Range Planner: By Question and Mathology Grade 5

| Question: How are things changing? |  |
| :---: | :---: |
| Time: September |  |
| Ontario Ministry Topics and Expectations | Pearson Mathology Lessons |
| Place value relationships, Equivalent fractions, ratios, rates, Repeating, growing \& shrinking patterns, Graphing patterns \& data, Number relationships (whole numbers, decimals), <br> Translations, reflections, \& rotations <br> Number: B1.1; B1.2; B1.5; B1.7; B2.3; B2.9 <br> Algebra: C1.1; C1.2; C1.3; C1.4 <br> Data: D1.3; D1.6 <br> Spatial Sense: E1.4; E1.5 <br> They describe how repeating, growing, and shrinking patterns change, and use various representations of the pattern to support their description. They describe relationships between whole numbers and decimals, and describe how the value of a digit changes as it shifts from one place value column to the next. They look at a series of equivalent fractions, ratios, and rates, and describe additive and multiplicative patterns that exist. They look at shapes that have been reflected, translated, or rotated and describe the spatial changes involved in each. In all these cases, they describe the actions involved in creating a change. | Number Unit 1: Number Relationships and Place Value <br> 1: Representing Larger Numbers <br> 2: Comparing Larger Numbers <br> Number Unit 3: Fractions and Decimals <br> 12: Comparing and Ordering Fractions <br> 13: Representing Decimals <br> 15: Comparing and Ordering Decimals <br> 16: Relating Fractions and Decimals <br> 17: Relating Fractions, Decimals, and Percents <br> Number Unit 4: Fluency with <br> Multiplication and Division <br> 24: Equivalent Ratios and Rates <br> Number Unit 5: Operations with Fractions and Decimals <br> 26: Estimating Sums and Differences with Decimals <br> 32: Consolidation (Operations with Fractions and Decimals) <br> Patterning Unit 1: Patterning <br> 1: Investigating Geometric Patterns <br> 2: Investigating Number Patterns <br> 3: Using Pattern Rules to Solve Problems <br> 4: Consolidation (Patterning) |


| Ontario Ministry Topics and Expectations | Pearson Mathology Lessons |
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|  | Data Management and Probability Unit <br> 1B: Data Management <br> 3: Exploring Stacked Bar Graphs <br> 4: Analyzing Graphs <br> 6: Creating an Infographic <br> Geometry Unit 2: Grids and <br> Transformations <br> 7: Plotting and Reading Coordinates <br> 8: Translating and Reflecting 2-D Shapes <br> 9: Rotating 2-D Shapes <br> 10: Identifying Transformations <br> Number Unit 6: Financial Literacy <br> 33: Exploring Taxes <br> 34: Problem Solving with Money <br> 38: Consolidation (Financial Literacy) |


| Question: How do these compare? |  |
| :---: | :---: |
| Time: October |  |
| Ontario Ministry Topics and Expectations | Pearson Mathology Lessons |
| Amounts to 100 000, including decimal amounts to hundredths, Rounding, Fractions, decimal hundredths, \& whole numbers, Fractions, decimals, \& percents, Relative frequency, Types of graphs, Angles (direct comparison \& non-standard units), Price, value, and unit rate, Types of taxes \& transfer payment methods <br> Number: B1.1; B1.2; B1.3; B1.4; B1.5; B1.6; B1.7; B2.9 Data: D1.5 <br> Spatial Sense: E2.3 <br> Financial Literacy: F1.1; F1.5; F1.6 <br> They compare amounts to 100 000, including those that involve decimals to hundredths. As they look at place value relationships, they make additive and multiplicative comparisons and explain the difference. They locate amounts on a number line and round to different intervals. <br> They represent percents as an amount of 100, and explain how a percent could also be described with an equivalent fraction or decimal. They compare fractions, decimals, and percents. They look at different sets of data and use fractions and percents to describe relative frequency. They describe the advantages and disadvantages of using frequency data and relative frequency data when making comparisons. <br> They also directly and indirectly compare angles and use non-standard units and non-standard angle measuring tools to quantify the comparison. They compare prices for goods and services and use unit rates, as well as other strategies, to determine the best value. They use their understanding of percent to explain and compare different types of taxes, and they describe the advantages and disadvantages of using different ways to transfer money. | Number Unit 1: Number Relationships and Place Value <br> 1: Representing Larger Numbers <br> 2: Comparing Larger Numbers <br> 3: Estimating to Solve Problems <br> 4: Consolidation (Number Relationships and Place Value) <br> Number Unit 3: Fractions and Decimals <br> 10: Equivalent Fractions <br> 11: Exploring Improper Fractions and Mixed Numbers <br> 12: Comparing and Ordering Fractions <br> 13: Representing Decimals <br> 14: Rounding Decimals <br> 15: Comparing and Ordering Decimals <br> 16: Relating Fractions and Decimals <br> 17: Relating Fractions, Decimals, and Percents <br> 18: Consolidation (Fractions and Decimals) <br> Number Unit 4: Fluency with <br> Multiplication and Division <br> 24: Equivalent Ratios and Rates <br> Data Management and Probability Unit <br> 1B: Data Management <br> 3: Exploring Stacked Bar Graphs <br> 4: Analyzing Graphs <br> 5: Measures of Central Tendency <br> 6: Creating an Infographic <br> Geometry Unit 1B: 2-D Shapes, Angles, and 3-D Solids <br> 1: Measuring and Comparing Angles <br> Number Unit 6: Financial Literacy <br> 33: Exploring Taxes <br> 35: Credit, Debt, and Transfers <br> 36: Finding Best Value (Unit Rates) <br> 38: Consolidation (Financial Literacy) |


| Question: What's the story? |  |
| :---: | :---: |
| Time: November |  |
| Ontario Ministry Topics and Expectations | Pearson Mathology Lessons |
| Percentages, Representative sampling techniques, Collect, organize, visualize data (relative frequency tables; stacked bar), Select type of graph, Analyze data; challenge assumption, Misleading graphs, Mean, median, mode, Tell data story (infographic) <br> Number: B1.7; B2.4; B2.6 <br> Data: D1.1; D1.2; D1.3; D1.4; D1.5; D1.6 <br> They ask questions and gather information about areas of interest. They explain their sampling technique to ensure their data is representative of a population. They organize data in relative-frequency tables and select appropriate graphs to represent their findings, including stacked bar graphs. They determine the mean, median, and mode and describe what each indicates about the data. They create an infographic to share their findings and point of view. They analyze commercial infographics and other visual displays of data, and identify any misleading graphs or other strategies that might unfairly persuade an audience. | Number Unit 2: Fluency with Addition and Subtraction <br> 5: Estimating Sums and Differences <br> 6: Exploring Addition Strategies <br> 7: Exploring Subtraction Strategies <br> Number Unit 3: Fractions and Decimals <br> 16: Relating Fractions and Decimals <br> 17: Relating Fractions, Decimals, and Percents <br> 18: Consolidation (Fractions and Decimals) <br> Number Unit 4: Fluency with Multiplication and Division <br> 19: Relating Multiplication and Division Facts <br> 20: Using Estimation for Multiplication and Division <br> 22: Multiplying Whole Numbers <br> 23: Dividing Larger Numbers <br> 24: Equivalent Ratios and Rates <br> 25: Consolidation (Fluency with Multiplication and Division) <br> Number Unit 5: Operations with Fractions and Decimals <br> 27: Adding with Decimal Numbers <br> 28: Subtracting with Decimal Numbers <br> Data Management and Probability Unit <br> 1B: Data Management <br> 1: Collecting and Organizing Data <br> 2: Exploring Relative Frequency Tables <br> 3: Exploring Stacked Bar Graphs <br> 4: Analyzing Graphs <br> 5: Measures of Central Tendency <br> 6: Creating an Infographic <br> Number Unit 6: Financial Literacy <br> 33: Exploring Taxes <br> 34: Problem Solving with Money <br> 38: Consolidation (Financial Literacy) |


| Question: How much is that? |  |
| :--- | :--- |
| Time: December | Pearson Mathology Lessons |
| Ontario Ministry Topics and Expectations | Per |
| Add \& subtract decimal hundredths, \& fractions | Number Unit 2: Fluency with Addition |
| with like denominators, Fractions, decimals, \& | and Subtraction |
| percent equivalences, Math facts (×/;) \& mental | 5: Estimating Sums and Differences |
| math, Multiply \& divide whole numbers, Multiply | 6: Exploring Addition Strategies |
| \& divide by unit fractions, Solve equations, | 7: Exploring Subtraction Strategies |
| Measure length, mass, capacity \& convert larger |  |
| to smaller SI units, Area of parallelograms \& | Number Unit 3: Fractions and Decimals |
| triangles | 10: Equivalent Fractions |
| Number: B1.3; B1.4; B1.5; B1.6; B1.7; B2.1; B2.2; B2.3; | 11: Exploring Improper Fractions and |
| B2.4; B2.5; B2.6; B2.7; B2.8 | Mixed Numbers |
| Algebra: C2.1; C2.2 | 12: Comparing and Ordering Fractions |
| Spatial Sense: E2.1; E2.2; E2.5 | 13: Representing Decimals |
| They use models, number sense, and spatial | 14: Rounding Decimals |
| reasoning to describe and determine how much. | 15: Comparing and Ordering Decimals |
| They compare and order fractions on a number line, | 16: Relating Fractions and Decimals |
| and represent equivalent fractions, decimals, and | 17: Relating Fractions, Decimals, and |
| percents. They add and subtract decimals and | Percents |
| fractions with like denominators. They use mental | 18: Consolidation (Fractions and |
| math strategies and the array or area model to | Decimals) |
| understand and recall multiplication and related |  |
| division facts to 12 $\times 12$. | Number Unit 4: Fluency with |
| They use metric units to describe how much length, | Multiplication and Division |
| mass, and capacity an object has, and use | 19: Relating Multiplication and Division |
| relationships between metric units to convert larger | Facts |
| units to smaller ones. They identify spatial | 20: Using Estimation for Multiplication |
| relationships between rectangles, parallelograms, | and Division |
| and triangles, with the same base and height, and use |  |
| these to indirectly measure their areas. They express | 22: Multiplying Whole Numbers |
| 23: Dividing Larger Numbers |  |
| these relationships with formulas. | 24: Equivalent Ratios and Rates |
| They continue to use their understanding of the array | 25: Consolidation (Fluency with |
| to multiply and divide whole numbers. They use the | Multiplication and Division) |
| distributive property to describe their mental |  |
| multiplication and division strategies and to explain |  |
| how the standard algorithms work. They also model |  |
| what it means to multiply and divide by unit fractions. |  |


| Ontario Ministry Topics and Expectations | Pearson Mathology Lessons |
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|  | Number Unit 5: Operations with Fractions |
|  | and Decimals |
|  | 26: Estimating Sums and Differences with Decimals |
|  | 27: Adding with Decimal Numbers |
|  | 28: Subtracting with Decimal Numbers |
|  | 29: Adding and Subtracting Fractions with |
|  | Like Denominators |
|  | 30: Multiplication and Division with Unit |
|  | Fractions |
|  | 31: Multiplication with 0.01 and 0.1 |
|  | Patterning Unit 2: Variables and |
|  | Equations |
|  | 5: Using Variables |
|  | Measurement Unit 1: Length, Perimeter, and Area |
|  | 1: Estimating and Measuring in |
|  | Millimetres |
|  | 2: Measuring Length in Different Units |
|  | 4: Relating the Perimeter and Area of |
|  | Rectangles |
|  | 5: Areas of Parallelograms and Triangles |
|  | 6: Consolidation (Length, Perimeter, and |
|  | Area) |
|  | Measurement Unit 2: Mass, Capacity, and |
|  | Volume |
|  | 7: Investigating Mass |
|  | 8: Investigating Capacity |
|  | 9: Investigating Relationships Among |
|  | Units |
|  | 12: Consolidation (Mass, Capacity, and |
|  | Volume) |
|  | Number Unit 6: Financial Literacy |
|  | 33: Exploring Taxes |
|  | 34: Problem Solving with Money |
|  | 35: Credit, Debt, and Transfers |
|  | 36: Finding Best Value (Unit Rates) |
|  | 37: Designing a Basic Budget |
|  | 38: Consolidation (Financial Literacy) |


| Question: How can we describe the space around us? |  |
| :---: | :---: |
| Time: January |  |
| Ontario Minis | Pearson Mathology Lessons |
| Fractions \& percentages of an area, Solve equations, Code conditional movement (Cartesian plane Q1), Draw 2-D views of 3-D objects, Angles, degrees, \& protractors, Properties of triangles, Congruent shapes, Congruent areas, different perimeters, Represent area \& perimeter as equations \& solve, Symmetries (translations, reflections, rotations) <br> Number: B1.3; B1.4; B1.7; B2.1; B2.2 <br> Algebra: C2.1; C2.2; C2.3; C3.1; C3.2 <br> Spatial Sense: E1.1; E1.2; E1.3; E1.4; E1.5; E2.1; E2.3; <br> E2.4; E2.5; E2.6 <br> They compare, construct, identify and measure shapes, and objects in space. They draw 2-D views of 3-D objects. They measure angles using degrees and explain how the scales on a protractor track the count of degrees. They use their ability to measure angles and lengths to describe and classify triangles. They construct different types of triangles when given certain measurements. They also construct rectangles and parallelograms and use measurement to identify congruence. <br> They translate among words, algebraic, and visual expressions involving area and perimeter. They solve equations related to area and perimeter when given different measurements. They use fractions and percentages to describe ways in which an area is subdivided. They demonstrate that congruent areas can have different perimeters. <br> They also describe translations, reflections, and rotations in natural and human-made patterns. They translate, reflect, and rotate objects on a grid, both by hand and with technology, and describe the impact of each spatial operation. They use different scales to describe location and movement on the first quadrant of a Cartesian plane. They write, execute, and alter code involving conditional statements to navigate a space. | Number Unit 2: Fluency with Addition and Subtraction <br> 5: Estimating Sums and Differences <br> 6: Exploring Addition Strategies <br> 7: Exploring Subtraction Strategies <br> 9: Consolidation (Fluency with Addition and Subtraction) <br> Number Unit 3: Fractions and Decimals <br> 10: Equivalent Fractions <br> 11: Exploring Improper Fractions and <br> Mixed Numbers <br> 12: Comparing and Ordering Fractions <br> 13: Representing Decimals <br> 16: Relating Fractions and Decimals <br> 17: Relating Fractions, Decimals, and <br> Percents <br> 18: Consolidation (Fractions and <br> Decimals) <br> Number Unit 4: Fluency with <br> Multiplication and Division <br> 19: Relating Multiplication and Division <br> Facts <br> Patterning Unit 2: Variables and <br> Equations <br> 5: Using Variables <br> 6: Solving Addition and Subtraction <br> Equations <br> 7: Solving Multiplication and Division <br> Equations <br> 8: Using Equations to Solve Problems <br> Patterning Unit 3: Coding <br> 11: Altering Dance Code <br> 12: Making Shapes <br> 13: Classifying Triangles |


| Ontario Ministry Topics and Expectations | Pearson Mathology Lessons |
| :---: | :---: |
|  | Geometry Unit 1B: 2-D Shapes, Angles, |
|  | and 3-D Solids |
|  | 1: Measuring and Comparing Angles |
|  | 3: Identifying and Constructing Triangles |
|  | 4: Identifying and Constructing |
|  | Congruent 2-D Shapes |
|  | 5: Drawing Views |
|  | 6: Consolidation (2-D Shapes, Angles, and |
|  | 3-D Solids) |
|  | Geometry Unit 2: Grids and |
|  | Transformations |
|  | 7: Plotting and Reading Coordinates |
|  | 8: Translating and Reflecting |
|  | 2-D Shapes |
|  | 9: Rotating 2-D Shapes |
|  | 10: Identifying Transformations |
|  | 11: Consolidation (Grids and |
|  | Transformations) |
|  | Measurement Unit 1: Length, Perimeter, |
|  | and Area |
|  | 1: Estimating and Measuring in |
|  | Millimetres |
|  | 2: Measuring Length in Different Units |
|  | 4: Relating the Perimeter and Area of |
|  | Rectangles |
|  | 5: Areas of Parallelograms and Triangles |
|  | 6: Consolidation (Length, Perimeter, and |
|  | Area) |
|  | Measurement Unit 2: Mass, Capacity, and |
|  | Volume |
|  | 7: Investigating Mass |
|  | 8: Investigating Capacity |
|  | 9: Investigating Relationships Among |
|  | Units |
|  | 12: Consolidation (Mass, Capacity, and |
|  | Volume) |
|  | Number Unit 6: Financial Literacy |
|  | 33: Exploring Taxes |
|  | 34: Problem Solving with Money |
|  | 36: Finding Best Value (Unit Rates) |
|  | 37: Designing a Basic Budget |
|  | 38: Consolidation (Financial Literacy) |


| Question: When are different operations useful? |  |
| :---: | :---: |
| Time: February |  |
| Ontario Ministry Topics and Expectations | Pearson Mathology Lessons |
| Represent types of $+/-/ \times / \div$ situations, Relationship between operations, Write \& solve algebraic equations, Coding operations, Area \& perimeter problems, Conversion between SI units, Translations on Cartesian plane (Q1) with scales, Total cost (sales tax, discounts) <br> Number: B2.1; B2.2; B2.3; B2.4; B2.5; B2.6; B2.7; B2.8 <br> Algebra: C2.1; C2.2; C3.1; C3.2 <br> Spatial Sense: E1.4; E2.2; E2.5; E2.6 <br> Financial Literacy: F1.2 <br> They represent and solve addition and subtraction problems where amounts are joined, separated, combined, and compared. They represent and solve multiplication and division problems involving repeated equal groups, rates, ratios, area measurements, and possible combinations. They choose the appropriate operation to match the situation and write and solve algebraic equations. They use addition and subtraction to solve perimeter problems and multiplication and division to solve area problems. They describe multiplicative relationships between metric units and in place value that help them convert between units. <br> They use addition and subtraction to calculate distances (translations) on a Cartesian plane and they use combinations of the operations to calculate the total cost of multiple items, including sales tax. They use a variety of operations when writing code. | Number Unit 2: Fluency with Addition and Subtraction <br> 5: Estimating Sums and Differences <br> 6: Exploring Addition Strategies <br> 7: Exploring Subtraction Strategies <br> 9: Consolidation (Fluency with Addition and Subtraction) <br> Number Unit 4: Fluency with <br> Multiplication and Division <br> 19: Relating Multiplication and Division Facts <br> Number Unit 5: Operations with Fractions and Decimals <br> 26: Estimating Sums and Differences with Decimals <br> 27: Adding with Decimal Numbers <br> 28: Subtracting with Decimal Numbers <br> 29: Adding and Subtracting Fractions with <br> Like Denominators <br> 30: Multiplication and Division with Unit <br> Fractions <br> 31: Multiplication with 0.01 and 0.1 <br> Patterning Unit 2: Variables and <br> Equations <br> 5: Using Variables <br> Patterning Unit 3: Coding <br> 11: Altering Dance Code <br> 12: Making Shapes <br> 13: Classifying Triangles <br> 14: Consolidation (Coding) |


| Ontario Ministry Topics and Expectations | Pearson Mathology Lessons |
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|  | Geometry Unit 2: Grids and |
|  | Transformations |
|  | 7: Plotting and Reading Coordinates |
|  | Measurement Unit 1: Length, Perimeter, and Area |
|  | 1: Estimating and Measuring in |
|  | Millimetres |
|  | 2: Measuring Length in Different Units |
|  | 4: Relating the Perimeter and Area of Rectangles |
|  | 5: Areas of Parallelograms and Triangles |
|  | 6: Consolidation (Length, Perimeter, and |
|  | Area) |
|  | Number Unit 6: Financial Literacy |
|  | 33: Exploring Taxes |
|  | 34: Problem Solving with Money |
|  | 36: Finding Best Value (Unit Rates) |
|  | 37: Designing a Basic Budget |
|  | 38: Consolidation (Financial Literacy) |


| Question: How can we keep things in balance? |  |
| :---: | :---: |
| Time: March |  |
| Ontario Ministry Topics and Expectations | Pearson Mathology Lessons |
| Relationships between operations, Describe and represent equivalent relationships, Evaluate algebraic expressions, Solve equations, Write, execute \& alter code, Design basic budget; credit \& debt, Transfer payment methods <br> Number: B2.1 <br> Algebra: C1.1; C1.2; C1.3; C2.1; C2.3; C3.1; C3.2 Financial Literacy: F1.1; F1.3; F1.4 <br> They describe ways to keep things in balance and equal. They design a basic budget given different earning and spending scenarios and explain the concepts of credit and debt. They create conditional code that compares budgets to actual spending. As they do this, they also discuss different ways to transfer money. <br> They create equivalent representations of a situation using words, algebraic expressions, and concrete models and explain why they are the same. They solve equations using a balance model. They evaluate algebraic expressions and use inverse operations to demonstrate that the algebraic expressions on either side of an equal sign are in balance. | Number Unit 2: Fluency with Addition and Subtraction <br> 6: Exploring Addition Strategies <br> 7: Exploring Subtraction Strategies <br> 9: Consolidation (Fluency with Addition and Subtraction) <br> Patterning Unit 2: Variables and <br> Equations <br> 5: Using Variables <br> 6: Solving Addition and Subtraction Equations <br> 7: Solving Multiplication and Division Equations <br> 8: Using Equations to Solve Problems <br> 10: Consolidation (Variables and Equations) <br> Patterning Unit 3: Coding <br> 11: Altering Dance Code <br> 12: Making Shapes <br> 13: Classifying Triangles <br> 14: Consolidation (Coding) <br> Number Unit 6: Financial Literacy <br> 33: Exploring Taxes <br> 34: Problem Solving with Money <br> 35: Credit, Debt, and Transfers <br> 36: Finding Best Value (Unit Rates) <br> 37: Designing a Basic Budget <br> 38: Consolidation (Financial Literacy) |


| Question: Scaling \& splitting: How much now? |  |
| :---: | :---: |
| Time: April |  |
| Ontario Ministry Topics and Expectations | Pearson Mathology Lessons |
| Equivalent fractions (scaling-splitting), Equivalent fractions \& decimals, Equivalent ratios; unit rates, Relative amounts of a whole (percents, fractions, decimals), Multiply and divide by unit fractions, Relative frequency tables, Convert larger to smaller SI units <br> Number: B1.3; B1.7; B2.7; B2.8; B2.9 <br> Data: D1.2 <br> Spatial Sense: E2.2 <br> Financial Literacy: F1.5 <br> They represent situations involving scaling and splitting and describe connections among multiplication, division, fractions, ratios, and rates. They model scaling and splitting as they use ratio tables to determine equivalent fractions, ratios, and rates. They find the unit rate to compare prices and find the best value. They use double number lines to show percent as the splitting of an amount by 100 . They describe relative amounts, create relative frequency tables, and make relative comparisons that involve percents, fractions, and decimals. <br> They see multiplying by unit fractions as splitting and scaling down, and dividing by unit fractions as splitting and counting the partitions. They describe how converting from larger to smaller metric units involves splitting, and use relationships among metric units to carry out conversions. | Number Unit 3: Fractions and Decimals <br> 10: Equivalent Fractions <br> 11: Exploring Improper Fractions and Mixed Numbers <br> 12: Comparing and Ordering Fractions <br> 16: Relating Fractions and Decimals <br> 17: Relating Fractions, Decimals, and Percents <br> 18: Consolidation (Fractions and Decimals) <br> Number Unit 4: Fluency with <br> Multiplication and Division <br> 24: Equivalent Ratios and Rates <br> Data Management and Probability Unit <br> 1B: Data Management <br> 2: Exploring Relative Frequency Tables <br> 5: Measures of Central Tendency <br> Measurement Unit 1: Length, Perimeter, and Area <br> 1: Estimating and Measuring in Millimetres <br> 2: Measuring Length in Different Units <br> Number Unit 6: Financial Literacy <br> 33: Exploring Taxes <br> 34: Problem Solving with Money <br> 36: Finding Best Value (Unit Rates) <br> 38: Consolidation (Financial Literacy) |


| Question: How can we make predictions and decide? |  |
| :---: | :---: |
| Time: May |  |
| Ontario Ministry Topics and Expectations | Pearson Mathology Lessons |
| Represent repeating \& growing patterns as rules \& graphs; extend, predict \& justify, Visualize \& analyze data, Experimental \& theoretical probability, Probability expressed as fraction \& represented on probability line, Making financial decisions <br> Number: B1.3; B1.4; B1.7 <br> Algebra: C1.1; C1.2; C1.3; C1.4 <br> Data: D1.5; D1.6; D2.1; D2.2 <br> Financial Literacy: F1.3; F1.4 <br> They use patterns and trends in data, presented in different ways, to inform decisions and make predictions. They examine repeating, growing, and shrinking patterns represented concretely, as rules, and as graphs, and use these to justify their predictions about future trends. They analyze different spending scenarios, make financial decisions about credit and debt, and ensure budgets are well managed. <br> They determine and compare the theoretical and experimental probabilities of an event happening by expressing them both as fractions and plotting them on a probability line. They describe the factors involved in making predictions and decisions. | Number Unit 3: Fractions and Decimals <br> 10: Equivalent Fractions <br> 11: Exploring Improper Fractions and Mixed Numbers <br> 12: Comparing and Ordering Fractions <br> 13: Representing Decimals <br> 16: Relating Fractions and Decimals <br> 17: Relating Fractions, Decimals, and Percents <br> 18: Consolidation (Fractions and Decimals) <br> Patterning Unit 1: Patterning <br> 1: Investigating Geometric Patterns <br> 2: Investigating Number Patterns <br> 3: Using Pattern Rules to Solve Problems <br> 4: Consolidation (Patterning) <br> Data Management and Probability Unit <br> 1B: Data Management <br> 3: Exploring Stacked Bar Graphs <br> 4: Analyzing Graphs <br> 5: Measures of Central Tendency <br> 6: Creating an Infographic <br> Data Management and Probability Unit 2: Probability <br> 7: Describing Likelihood of Events <br> 8: Conducting Experiments <br> 9: Designing Experiments <br> 10: Consolidation (Probability) <br> Number Unit 6: Financial Literacy <br> 33: Exploring Taxes <br> 34: Problem Solving with Money <br> 35: Credit, Debt, and Transfers <br> 37: Designing a Basic Budget <br> 38: Consolidation (Financial Literacy) |


| Question: Is this statement true? |  |
| :---: | :---: |
| Time: June |  |
| Ontario Ministry Topics and Expectations | Pearson Mathology Lessons |
| Number properties, Solve equations, Equivalent representations of patterns, Solve \& graph inequalities, Write, execute, \& alter code involving conditional statements, Test code involving conditional statements, Misleading graphs <br> Number: B2.1 <br> Algebra: C2.1; C2.2; C2.3; C2.4; C3.1; C3.2 <br> Data: D1.6 <br> They analyze a variety of situations to decide whether they are true. They decide if various representations of a pattern or situation are equivalent. They verify if a solution to an equation is true and, if not, adjust accordingly. They solve and graph inequalities and explain conditions for when an inequality is true. <br> They analyze misleading graphs and describe how the truth has been distorted. They analyze different number properties, presented algebraically, and describe why they are true. They create code involving if-then conditions and demonstrate that both sides of the flow diagram are true. | Number Unit 2: Fluency with Addition and Subtraction <br> 6: Exploring Addition Strategies <br> 7: Exploring Subtraction Strategies <br> 9: Consolidation (Fluency with Addition and Subtraction) <br> Patterning Unit 2: Variables and <br> Equations <br> 5: Using Variables <br> 6: Solving Addition and Subtraction <br> Equations <br> 7: Solving Multiplication and Division <br> Equations <br> 8: Using Equations to Solve Problems <br> 9: Solving and Graphing Inequalities <br> 10: Consolidation (Variables and <br> Equations) <br> Patterning Unit 3: Coding <br> 11: Altering Dance Code <br> 12: Making Shapes <br> 13: Classifying Triangles <br> 14: Consolidation (Coding) <br> Data Management and Probability Unit <br> 1B: Data Management <br> 1: Collecting and Organizing Data <br> Number Unit 6: Financial Literacy <br> 33: Exploring Taxes <br> 34: Problem Solving with Money <br> 36: Finding Best Value (Unit Rates) <br> 37: Designing a Basic Budget <br> 38: Consolidation (Financial Literacy) |

