

Mathology 1 and Ontario Ministry of Education Long-Range Plan: by Question

Ontario Ministry Long Range Plan	Pearson <i>Mathology</i>	
Who are we?	Big Ideas	
	<ul style="list-style-type: none"> • Numbers are related in many ways. • Quantities can be grouped by or partitioned into equal sized units. • 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes. • Formulating questions, collecting data, and consolidating data in visual and graphical displays help understand, predict, and interpret situations that involve uncertainty, variability, and randomness. • Objects can be located in space and viewed from multiple perspectives. 	
Time: September		
Questions and Expectations	What to Look For	Little Books/Activity
		<u>Memory Book</u> - locate and map objects in the environment - investigate 2-D shapes and 3-D solids
Data collection & organization, Data visualization, Data analysis Data: D1.1; D1.2; D1.3; D1.4; D.1.5 Ask questions, collect information about people and things (their classmates, their hobbies, and things they might collect), and put that information into concrete graphs and pictographs.	<i>- Are students able to sort by attributes?</i> <i>- Are students able to explain why something does or does not have the attribute?</i> <i>- Are students able to answer questions and make comparisons with their graphs?</i>	<u>Geometry Cluster 1: 2-D Shapes</u> 1: Sorting Shapes 5: Sorting Rules <u>Data Management and Probability Cluster 1: Data Management</u> 2: Interpreting Graphs 3: Making Concrete Graphs
Count to 20 Number: B1.1; B1.2; B1.3; B1.5 Work with numbers to approximately 20 as they count the number of people or objects and match the count of tallies to the amounts in the graph.	<i>- Do students guess or do they use referents to help estimate quantities?</i> <i>- Do students know that numbers can be broken down into many different ways?</i>	<u>Number Cluster 1: Counting</u> 1: Counting to 20 4: Ordinal Numbers <u>Number Cluster 5: Composing and Decomposing</u> 17: Decomposing 10 18: Numbers to 10 19: Numbers to 20

Questions and Expectations	What to Look For	Little Books/Activity
<p>Relative location, Directions for movement Spatial Sense: E1.4, E1.5</p> <p>Describe where their desks are in the classroom (and other objects) and use positional language to create instructions for their peers.</p>	<p><i>-Are students able to use positional words and relative location to find and describe the position of objects?</i></p>	<p><u>Geometry Cluster 4: Location and Movement</u> 17: Perspective Taking 18: Mapping</p>
<p>Reflection: <i>Who are we?</i></p>		

Ontario Ministry Long Range Plan	Pearson <i>Mathology</i>	
How are numbers used in our world?	<p align="center">Big Ideas</p> <ul style="list-style-type: none"> • Numbers are related in many ways. • Numbers tell us how much and how many. • Objects can be located in space and viewed from multiple perspectives. 	
Time: October		
Questions and Expectations	What to Look For	Little Books/Activity
		<u>Graph It</u> - interpret concrete graphs and picture graphs - build concrete graphs and picture graphs
		<u>On Safari!</u> - count sets to 20 - add 1 or 2
Estimate & count quantities to 50 Number: B1.1; B1.2; B1.3; B1.4; B1.5; B2.2	<i>- Do students guess or do they use referents to help estimate quantities?</i> <i>- Can students count on and back to find out “how many”?</i>	<u>Number Cluster 1: Counting</u> 2: Counting to 50 3: Counting On and Back 5: Consolidation (Counting) <u>Number Cluster 2: Spatial Reasoning</u> 6: Subitizing to 10 7: Estimating Quantities
Data collection & analysis Data: D1.4; D1.5	<i>- Are students able to organize the data in a pictograph?</i> <i>- Are students able to answer questions and make comparisons with their graphs?</i>	<u>Data Management and Probability Cluster 1: Data Management</u> 4: Making Pictographs 5: Consolidation (Data Management)

Questions and Expectations	What to Look For	Little Books/Activity
<p>Math facts (+/-) Algebra: C3.1; C3.2</p>	<p><i>-Are students able to use known relationships to determine an unknown number?</i></p> <p><i>-Can students use addition to help with a subtraction problem?</i></p>	<p><u>Number Cluster 4: Skip-Counting</u> 13: Skip-Counting Forward 14: Skip-Counting with Leftovers 15: Skip-Counting Backward 16: Consolidation (Skip-Counting)</p> <p><u>Number Cluster 7: Operational Fluency</u> 31: More or Less 37: Part-Part-Whole 38: Exploring Properties</p>
<p>Coding, Location Spatial Sense: E1.5</p>	<p><i>-Are students able to use positional words and relative location to find and describe the position of objects?</i></p> <p><i>-Are students able to create and alter number codes on and off a grid?</i></p>	<p><u>Geometry Cluster 4: Location and Movement</u> 17: Perspective Taking 18: Mapping 19: Exploring Coding 20: Coding on a Grid</p>
<p>Reflection: How are numbers used in our world?</p>		

Ontario Ministry Long Range Plan	Pearson Mathology	
<p>What comes first? What comes next?</p>	<p align="center">Big Ideas</p> <ul style="list-style-type: none"> • Regularity and repetition form patterns that can be generalized and predicted mathematically. • Many things in our world (e.g., objects, spaces, events) have attributes that can be measured and compared. • Objects can be located in space and viewed from multiple perspectives. • Formulating questions, collecting data, and consolidating data in visual and graphical displays help us understand, predict, and interpret situations that involve uncertainty, variability, and randomness. 	
<p>Time: November</p>		
Questions and Expectations	What to Look For	Little Books/Activity
		<p><u>Paddling the River</u></p> <ul style="list-style-type: none"> - count, compare, and order to 20 - compose and decompose
		<p><u>Midnight and Snowfall</u></p> <ul style="list-style-type: none"> - identify and describe repeating patterns - compare and create patterns
		<p><u>The Amazing Seed</u></p> <ul style="list-style-type: none"> - estimate and compare attributes - estimate and measure using non-standard units
<p>Extend patterns, Number patterns to 50 Algebra: C1.1; C1.3; C1.4; C3.1; C3.2</p> <p>They describe how things are ordered. They notice regularities in patterns and use these to predict what comes next. They translate the patterns into other forms and notice the same pattern applies.</p>	<ul style="list-style-type: none"> - <i>Can students accurately identify the core of a pattern?</i> - <i>Are students able to use the cores to extend the patterns correctly?</i> - <i>Can students successfully represent a pattern in different ways (e.g., visual, auditory, kinesthetic)?</i> - <i>Are students able to identify and correct errors and missing elements in a repeating pattern?</i> 	<p><u>Patterning and Algebra Cluster 1: Investigating Repeating Patterns</u></p> <p>1: Repeating the Core 2: Representing Patterns</p> <p><u>Patterning and Algebra Cluster 2: Creating Patterns</u></p> <p>6: Extending Patterns 8: Errors and Missing Elements</p>

Questions and Expectations	What to Look For	Little Books/Activity
<p>Order by attribute, Counting sequences to 50, Ordering by number Number: B1.3; B1.4; B1.5 Spatial Sense: E2.1; E2.2</p> <p>They see patterns in the counting sequence to 50 and use this to order numbers and amounts. They compare and order objects by attribute (length, mass, capacity, area, angle) and recognize that comparing different attributes produces a different order.</p>	<p><i>- Do students select suitable objects and tools or materials for the attribute being compared?</i> <i>- Are students able to compare and order the objects correctly?</i> <i>- Do students use measurement language to compare and describe the objects (e.g., heavier, longer, holds more, greater area)?</i></p>	<p><u>Measurement Cluster 1: Comparing Objects</u> 1: Identifying Attributes 2: Comparing Length 4: Comparing Mass 5: Comparing Capacity 6: Making Comparisons 7: Comparing Area 8: Consolidation (Comparing Objects)</p>
<p>Coding sequences, Data analysis (frequency) Data: D1.3; D1.4; D:1.5</p> <p>They analyze and order data by frequency. They put code in the right order so to reach a desired destination.</p>	<p><i>- Are students able to use positional words (e.g., above, beside) and relative location to find and describe the position of objects?</i> <i>- Do students use the language of chance as they discuss their pictures?</i> <i>- Are students able to determine which of two events is more likely or less likely?</i></p>	<p><u>Geometry Cluster 4: Location and Movement</u> 17: Perspective Taking 18: Mapping 19: Exploring Coding 20: Coding on a Grid 21: Number Codes 22: Consolidation (Location and Movement)</p> <p><u>Data Management and Probability Cluster 2: Probability and Chance</u> 6: Likelihood of Events 7: Making and Testing Predictions 8: Consolidation (Probability and Chance)</p>
<p>Calendars, Likelihood Spatial Sense: E2.3 Data: D2.1; D2.2</p> <p>They use calendars to describe what comes next and describe the likelihood that an event will happen.</p>	<p><i>- Are students able to read the date on a calendar?</i> <i>- Are students able to use ordinal numbers to name months or dates on the calendar?</i></p>	<p><u>Measurement Cluster 3: Time</u> 9: Relating to Seasons 10: The Calendar</p>
<p>Reflection: What comes first? What comes next?</p>		

Ontario Ministry Long Range Plan	Pearson Mathology	
Joining and separating: What do we have now?	Big Ideas <ul style="list-style-type: none"> • Numbers are related in many ways. • Quantities and numbers can be grouped by or partitioned into equal-sized units. • Quantities and numbers can be grouped by, and partitioned into, units to determine how many or how much. • Quantities and numbers can be added and subtracted to determine how many or how much. • 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes. 	
Time: December		
Questions and Expectations	What to Look For	Little Books/Activity
		<u>Nutty and Wolfy</u> - explore equality and inequality - compare quantities to 20
		<u>Hockey Time!</u> - add and subtract to 20 - compose and decompose to 20
Change situations (+/-), Part-whole situations (+/-), Mental math to 20 Number: B1.1; B1.2; B1.3; B1.4; B2.1; B2.2; B2.3; B2.4 They join, separate, and combine amounts (compose and decompose) and represent the amounts with addition and subtraction. They describe their mental math strategies and notice that the same situation can be represented with an addition and subtraction number sentence. As they come to trust the count, they recognize that math facts exist and begin to develop automaticity.	<i>- Do students realize that a number can be decomposed in many different ways?</i> <i>- To confirm the number, do students count by 1s or do they use more efficient counting strategies?</i> <i>- To show a number in a different way, do students start fresh each time or do they make changes to the current representation?</i>	<u>Number Cluster 5: Composing and Decomposing</u> 20: Decomposing 50 26: Consolidation (Composing and Decomposing) <u>Number Cluster 7: Operational Fluency</u> 32: Complements of 10 33: Adding to 20 34: Subtracting to 50 35: The Number Line 36: Doubles

Questions and Expectations	What to Look For	Little Books/Activity
<p>Equivalent expressions Algebra: C2.2; C2.3</p> <p>They use counting and direct modelling to find an unknown result, starting point, or change. They create part-whole models to represent the actions.</p>	<p><i>-Are students able to write number sentences that match their models?</i></p> <p><i>-Do students immediately know how many cubes they have to add or take away, or do they adjust the number of cubes in the pans until they balance?</i></p>	<p><u>Patterning and Algebra Cluster 3: Equality and Inequality</u> 10: Exploring Sets 11: Making Equal Sets</p>
<p>Compose-decompose shapes & objects Spatial Sense: E1.2; E1.3</p> <p>They also join, separate and combine shapes, and describe the results. They notice what smaller shapes it takes to create a larger shape (composing) and the shapes that are within shapes (decomposing).</p>	<p><i>-Do students fill the outlines with the fewest blocks possible, or do they use, for example, all green triangles?</i></p> <p><i>-Do students use geometric language when describing the solids used to make the structures?</i></p>	<p><u>Geometry Cluster 2: 3-D Solids</u> 8: Faces of Solids 11: Constructing Solids and Skeletons 12: Consolidation (3-D Solids)</p>
<p>Reflection: <i>Joining and separating: What do we have now?</i></p>		

Ontario Ministry Long Range Plan	Pearson <i>Mathology</i>	
<p>What shapes are in our world?</p>	<p>Big Ideas</p> <ul style="list-style-type: none"> • 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes. • Quantities and numbers can be grouped by or partitioned into equal-sized units. • Regularity and repetition form patterns that can be generalized and predicted mathematically. • 2-D shapes and 3-D solids can be transformed in many ways and analyzed for change. 	
Time: January		
Questions and Expectations	What to Look For	Little Books/Activity
		<p><u>The Tailor Shop</u></p> <ul style="list-style-type: none"> - transform and describe shapes - describe and compare shapes
		<p><u>What Was Here?</u></p> <ul style="list-style-type: none"> - find and describe shapes and solids - explore and classify shapes and solids
<p>Sort, build, describe 2-D shapes & 3-D objects Spatial Sense: E1.1; E1.2; E1.3</p> <p>They sort and describe shapes and objects using attributes. They identify common shapes. They compose and decompose them.</p>	<p><i>-Are students able to identify the sorting rule and explain why they think the sorting rule is correct?</i></p> <p><i>-Can students identify and describe shapes and solids using attributes?</i></p> <p><i>-Do students realize that there may be more than one rule for a sort?</i></p>	<p><u>Geometry Cluster 1: 2-D Shapes</u></p> <p>2: Identifying Triangles 3: Identifying Rectangles 4: Visualizing Shapes 6: Consolidation (2-D Shapes)</p> <p><u>Geometry Cluster 2: 3-D Solids</u></p> <p>7: Exploring 3-D Solids 9: Sorting 3-D Solids 10: Identify the Sorting Rule 11: Constructing Solids and Skeletons 12: Consolidation (3-D Solids)</p>

Questions and Expectations	What to Look For	Little Books/Activity
<p>Matching halves, Sort sets of data Number: B1.6; B1.7 Data: D1.1</p> <p>They identify matching halves by physically and visually manipulating the shapes to show they are the same.</p>	<ul style="list-style-type: none"> -Are students able to group the cubes in more than one way? -Are students able to connect the number of parts to the correct fraction name? -Do students notice that different-sized wholes result in different-sized halves, thirds, fourths, ...? 	<p>Number Cluster 5: Composing and Decomposing 22: Equal Groups 23: Equal Parts</p>
<p>Patterns with shapes Algebra: C1.2</p> <p>They create patterns using an attribute.</p>	<ul style="list-style-type: none"> -Are students able to use the cores and create patterns independently and accurately? -Are students able to identify the missing elements and errors in a repeating pattern? -What strategies are students using to make the symmetrical designs? -Do students use mathematical language in their explanations? 	<p><u>Patterning and Algebra Cluster 2: Creating Patterns</u> 7: Translating Patterns 9: Consolidation (Creating Patterns)</p> <p><u>Geometry Cluster 3: Symmetry</u> 13: Finding Lines of Symmetry 14: Creating Symmetrical Designs 15: Building Symmetrical Solids 16: Consolidation (Symmetry)</p>
<p>Reflection: What shapes are in our world?</p>		

Ontario Ministry Long Range Plan	Pearson <i>Mathology</i>	
<p>What is a pattern?</p>	<p>Big Ideas</p> <ul style="list-style-type: none"> • Regularity and repetition form patterns that can be generalized and predicted mathematically. • Objects can be located in space and viewed from multiple perspectives. • Numbers are related in many ways. • Numbers tell us how many and how much. • Quantities and numbers can be grouped by or partitioned into equal-sized units. 	
<p>Time: February</p>		
Questions and Expectations	What to Look For	Little Books/Activity
		<p><u>At the Corn Farm</u></p> <ul style="list-style-type: none"> - group quantities based on units of 10 - compare and order sets/quantities to 20
		<p><u>How Many Is Too Many?</u></p> <ul style="list-style-type: none"> - estimate and groups to skip-count to 50 - compare quantities to 50
<p>Pattern types & rules, Translate/represent patterns, Quantities that change, Patterns with numbers (to 50), Spatial patterns (sorting) Algebra: C1.1; C1.2; C1.3; C1.4; C2.1; C2.2 Spatial Sense: E1.1</p> <p>They recognize and describe a variety of patterns. They identify regularities in patterns and use that to extend the pattern and predict what comes next.</p>	<p><i>-Are students able to use the cores to extend the patterns correctly?</i> <i>-Are students using math language to describe their pattern?</i></p>	<p><u>Patterning and Algebra Cluster 1: Investigating Repeating Patterns</u> 3: Predicting Elements 4: Finding Patterns 5: Consolidation (Investigating Repeating Patterns)</p> <p><u>Patterning and Algebra Cluster 2: Creating Patterns</u> 7: Translating Patterns 9: Consolidation (Creating Patterns)</p>

Questions and Expectations	What to Look For	Little Books/Activity
<p>Number sequences Number: B1.3; B1.5</p> <p>Coding patterns Algebra: C3.1; C3.2</p> <p>They work with number patterns, spatial patterns, and patterns in code. They identify what changes and what stays the same.</p>	<p><i>-Are students able to use positional words and relative location to find and describe the position of objects?</i></p> <p><i>-Are students able to explain how they know the numbers are written from least to greatest?</i></p> <p><i>-Do students understand that 1 ten is the same as 10 ones?</i></p> <p><i>-Do students understand that a two-digit number can be represented in different ways?</i></p>	<p><u>Geometry Cluster 4: Location and Movement</u> 19: Exploring Coding 21: Number Codes 22: Consolidation (Location and Movement)</p> <p><u>Number Cluster 3: Comparing and Ordering</u> 9: Comparing Sets Concretely 10: Comparing Sets Pictorially 11: Comparing Numbers to 50 12: Consolidation (Comparing and Ordering)</p> <p><u>Number Cluster 4: Skip-Counting</u> 13: Skip-Counting Forward 14: Skip-Counting with Leftovers 15: Skip-Counting Backward 16: Consolidation (Skip-Counting)</p> <p><u>Number Cluster 6: Early Place Value</u> 27: Tens and Ones 28: Building and Naming Numbers 29: Different Representations</p>
Reflection: What is a pattern?		

Ontario Ministry Long Range Plan	Pearson <i>Mathology</i>	
<p>How much is 50?</p>	<p>Big Ideas</p> <ul style="list-style-type: none"> • Numbers tell us how many and how much. • Quantities and numbers can be grouped by or partitioned into equal-sized units. • Quantities and numbers can be added and subtracted to determine how many or how much. • Patterns and relations can be represented with symbols, equations, and expressions. 	
<p>Time: March</p>		
Questions and Expectations	What to Look For	Little Books/Activity
		<p><u>Cats and Kittens!</u></p> <ul style="list-style-type: none"> - add and subtract to 20 - compare quantities to 20
		<p><u>A Family Cookout</u></p> <ul style="list-style-type: none"> - compare and order quantities to 25 - estimate and count to 50
<p>Estimate & count, Number relationships to 50, Addition & subtraction Number: B1.1; B1.2; B1.3; B1.4; B1.5 Data: D1.3; D1.4; D1.5</p> <p>They describe amounts that make 50, as well as amounts leading up to 50 (e.g., amounts to 10, 20, 30, and 40). They work with anchors of five and ten.</p>	<p><i>- Do students group coins to find the total value?</i> <i>- Do students use skip-counting to count coins of the same type?</i> <i>- Are students able to represent numbers in different ways?</i> <i>- Do students know when they have found all the ways to show a number? How do they know?</i></p>	<p><u>Number Cluster 2: Spatial Reasoning</u> 7: Estimating Quantities 8: Consolidation (Spatial Reasoning)</p> <p><u>Number Cluster 5: Composing and Decomposing</u> 21: Money Amounts</p> <p><u>Number Cluster 6: Early Place Value</u> 27: Tens and Ones 28: Building and Naming Numbers 29: Different Representations 30: Consolidation (Early Place Value)</p>

Questions and Expectations	What to Look For	Little Books/Activity
<p>Mental math to 20, Coins & bills to 50, Data analysis (frequency) Number: B2.1; B2.2; B2.3; B2.4 Financial Literacy: F1.1</p> <p>They estimate. They count data. They connect a count to addition and subtraction. They use coins and bills and describe “how much more” is needed to make an amount. They count the value of collections and subsets of collections based on attributes.</p>	<ul style="list-style-type: none"> -Are students able to correctly identify the whole and the parts? -How do students decide which operation to use? -How do students solve the problems? -Are students able to use math language to explain how they solved the problems? -Do students recognize the difference between wants and needs? -Are students able to accurately show coins that match the price of an item? 	<p><u>Number Cluster 7: Operational Fluency</u> 31: More or Less 32: Complements of 10 33: Adding to 20 34: Subtracting to 50 35: The Number Line 36: Doubles 37: Part-Part-Whole 38: Exploring Properties 39: Solving Story Problems 40: Adding and Subtracting to 50 41: Consolidation (Operational Fluency)</p> <p><u>Number Cluster 8: Financial Literacy</u> 44: Counting Collections 47: Consolidation (Financial Literacy)</p>
<p>Number patterns, Equivalent expressions, Coding Algebra: C1.4; C2.2; C2.3; C3.1; C3.2</p> <p>They create code that moves a bot 50 units as a sequence of smaller units. They notice patterns in the counting sequence to 50 and write equivalent expressions that total 50 (or other amounts).</p>	<ul style="list-style-type: none"> -Are students able to represent their models with number sentences? -What strategies do students use to come up with new number sentences? -Do students find all possible ways to decompose the number? -Do students realize that number sentences, like $5 + 7 = 12$ and $12 = 5 + 7$, are the same? 	<p><u>Patterning and Algebra Cluster 3: Equality and Inequality</u> 12: Using Symbols 13: Consolidation (Equality and Inequality)</p>
<p>Reflection: How much is 50?</p>		

Ontario Ministry Long Range Plan	Pearson Mathology	
<p>What's the difference?</p>	<p>Big Ideas</p> <ul style="list-style-type: none"> • Numbers tell us how many and how much. • Numbers are related in many ways. • Quantities and numbers can be added and subtracted to determine how many or how much. 	
<p>Time: April</p>		
Questions and Expectations	What to Look For	Little Books/Activity
		<p><u>Buy 1–Get 1</u></p> <ul style="list-style-type: none"> - add and subtract to 20 - develop addition and subtraction strategies
<p>Change situations (+/-), Compare situations (+/-), Coins & bills to 50, Equivalent expressions, Sort (compare) data Number: B1.1; B1.2; B2.1 Algebra: C2.2; C2.3 Data: D1.1 Financial Literacy: F1.1</p> <p>They solve comparison situations where the difference, the larger amount, or the smaller amount is unknown. They represent the situations, including situations involving money, concretely or with drawings. They represent their thinking with addition and subtraction.</p>	<ul style="list-style-type: none"> - <i>Can students come up with another way to show the same amount?</i> - <i>Can students identify the name and value of each coin/bill?</i> - <i>How do students compare the bills?</i> - <i>Are students able to accurately arrange the coins/bills from greatest to least value?</i> - <i>How do students decompose 50 into two parts?</i> - <i>What strategies do students use to find the unknown part?</i> - <i>How do students solve the problems?</i> - <i>Are students able to use math language to explain how they solved the problems?</i> 	<p><u>Number Cluster 5: Composing and Decomposing</u> 20: Decomposing 50 26: Consolidation (Composing and Decomposing)</p> <p><u>Number Cluster 8: Financial Literacy</u> 42: Values of Coins 43: Values of Bills 44: Counting Collections 47: Consolidation (Financial Literacy)</p>

Questions and Expectations	What to Look For	Little Books/Activity
<p>Math facts, Mental math to 20, Sort shapes & objects</p> <p>Number: B2.2; B2.3; B2.4 Spatial Sense: E1.1</p> <p>They use counting and draw on math facts to determine differences. They also compare shapes and objects and describe how one is different from the other. They use these comparisons to sort and describe shapes.</p>		<p><u>Number Cluster 7: Operational Fluency</u></p> <p>31: More or Less 32: Complements of 10 33: Adding to 20 34: Subtracting to 50 35: The Number Line 36: Doubles 37: Part-Part-Whole 38: Exploring Properties 39: Solving Story Problems 40: Adding and Subtracting to 50 41: Consolidation (Operational Fluency)</p> <p><u>Geometry Cluster 1: 2-D Shapes</u></p> <p>1: Sorting Shapes 2: Identifying Triangles 3: Identifying Rectangles 4: Visualizing Shapes 5: Sorting Rules 6: Consolidation (2-D Shapes)</p>
Reflection: What's the difference?		

Ontario Ministry Long Range Plan	Pearson Mathology	
<p>How can we share things equally?</p>	<p>Big Ideas</p> <ul style="list-style-type: none"> • Patterns and relations can be represented with symbols, equations, and expressions. • 2-D shapes and 3-D solids can be analyzed and classified in different ways by their attributes. • Numbers are related in many ways. 	
Time: May		
Questions and Expectations	What to Look For	Little Books/Activity
		<p><u>Canada's Oldest Sport</u></p> <ul style="list-style-type: none"> - add and subtract to 20 - compare and order sets to 20
<p>Equivalent expressions, Matching halves, Compare attributes Algebra: C2.3 Spatial Sense: E1.3; E1.1</p> <p>They identify matching halves by comparing lengths and areas. They identify attributes that are equal.</p>	<p><i>- How do students decompose 50 into two parts?</i></p> <p><i>- What strategies are students using to make the symmetrical designs?</i></p> <p><i>- Do students use mathematical language in their explanations?</i></p>	<p><u>Geometry Cluster 3: Symmetry</u></p> <p>13: Finding Lines of Symmetry</p> <p>14: Creating Symmetrical Designs</p> <p>16: Consolidation (Symmetry)</p>
<p>Equal sharing (fractions), Equal groupings ($\times \div$), Halves, Fourths Number: B1.6; B1.7; B1.8; B2.5</p> <p>They split amounts (areas) equally among 2 or 4 and describe each amount as one-half or one fourth of the whole. They notice that 4 groups of one-fourth make a whole. They also share collections equally among 2 or 4 and split any remainders into halves or fourths.</p>	<p><i>- Are students able to group the cubes in more than one way?</i></p> <p><i>- Do students count the cubes by 1s each time, or do they skip-count when cubes are grouped in 2s, 5s, and 10s?</i></p> <p><i>- Do students realize that when the groups contain more cubes, they will be able to make fewer groups?</i></p> <p><i>- How do students solve the problems?</i></p> <p><i>- Are students able to use math language to explain how they solved the problems?</i></p>	<p><u>Number Cluster 5: Composing and Decomposing</u></p> <p>22: Equal Groups</p> <p>23: Equal Parts</p> <p>24: Sharing Equally</p> <p>25: Comparing and Ordering Unit Fractions</p> <p>26: Consolidation (Composing and Decomposing)</p>
<p>Reflection: How can we share things equally?</p>		

Ontario Ministry Long Range Plan	Pearson Mathology	
<p>How much is that?</p>	<p>Big Ideas</p> <ul style="list-style-type: none"> • Numbers tell us how many and how much. • Numbers are related in many ways. • Quantities and numbers can be grouped by or partitioned into equal-sized units. • Quantities and numbers can be added and subtracted to determine how many or how much. 	
<p>Time: June</p>		
Questions and Expectations	What to Look For	Little Books/Activity
		<p><u>How Many Is Too Many?</u> - estimate and groups to skip-count to 50 - compare quantities to 50</p>
<p>Coins & bills to 50, Equivalent expressions, Compare data Number: B1.1; B1.2; B1.4; B1.5 Algebra: C2.3 Data: D1.1 Financial Literacy: F1.1</p> <p>They continue to work with amounts to 50 in various contexts. They determine total amounts, as well as the amounts that make up a total, and write equivalent number sentences. They connect data to graphs and determine money amounts.</p>	<p><i>- Can students come up with another way to show the same amount?</i> <i>- How do students compare the bills?</i> <i>- Are students able to accurately arrange the coins/bills from greatest to least value?</i> <i>- How do students decompose into two parts?</i></p>	<p><u>Number Cluster 5: Composing and Decomposing</u> 21: Money Amounts</p> <p><u>Number Cluster 6: Early Place Value</u> 28: Building and Naming Numbers</p> <p><u>Number Cluster 8: Financial Literacy</u> 42: Values of Coins 43: Values of Bills 44: Counting Collections 47: Consolidation (Financial Literacy)</p>

Questions and Expectations	What to Look For	Little Books/Activity
<p>Estimate & Count, Change situations (+/-), Compare situations (+/-), Math facts, Mental math to 20</p> <p>Number: B1.1; B1.2; B1.4; B1.5; B2.1; B2.2; B2.3; B2.4</p> <p>They count, estimate, draw on math facts, and use mental math strategies. They also consider the parallel question, “how much more is that?”.</p>		<p><u>Number Cluster 7: Operational Fluency</u></p> <p>31: More or Less</p> <p>32: Complements of 10</p> <p>33: Adding to 20</p> <p>34: Subtracting to 50</p> <p>35: The Number Line</p> <p>36: Doubles</p> <p>37: Part-Part-Whole</p> <p>38: Exploring Properties</p> <p>39: Solving Story Problems</p> <p>40: Adding and Subtracting to 50</p> <p>41: Consolidation (Operational Fluency)</p>
<p>Reflection: <i>How much is that?</i></p>		