**Mathology 1 Correlation (Number) – Ontario**

**Mathology Kit (Prior 2022)**

**\*Lessons indicated in green are new lessons that correspond to the Ontario Curriculum. They can be found in Mathology.ca and the updated Print Kits. For more information click here:** [**Mathology.ca**](https://www.pearson.com/ca/en/k-12-education/mathology/online-tool.html)

\*LINE MASTERS FOR THE LESSONS FROM THE KITS (PRIOR TO 2020) REFERRED TO BELOW CAN BE FOUND HERE: [MATHOLOGY LINE MASTERS ONTARIO VERSION](https://www.pearson.com/ca/en/k-12-education/mathology/linemasters-correlations/grade-1/line-masters.html?tab=classroom-activity-kit-line-masters-(ontario-version))

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| **Overall ExpectationA1. Social-Emotional Learning (SEL) Skills and the Mathematical Processes** |
| Mathology provides teachers with a flexible framework to support the development of students’ Social-Emotional Learning: * By using diverse resources that represent a variety of students in real-world contexts, students can see themselves and others while positively engaging in mathematics
* By providing differentiated support that allows students to cope with challenges, start at a level that works for them, and build from there
* By providing students with opportunities to learn by way of different approaches, through the use of digital (e.g., virtual tools) and print resources (e.g., laminated student cards and math mats), allowing students to reveal their mathematical thinking in a risk-free environment.
* By providing students with a variety of learning opportunities (small group, pair, whole class), to work collaboratively on math problems, share their own thinking, and listen to the thinking of others
* By including a variety of voices (built by and for Canadian learners) and opportunities to support local contexts (modifiable resources)
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| **Curriculum Expectations 2020** | **Mathology Grade 1** **Activity Kit (Prior to 2022)** | Ideas to work with Mathology Activities to meet the new Ontario Curriculum Expectations |
| **Overall ExpectationB1. Number Sense:** demonstrate an understanding of numbers and make connections to the way numbers are used in everyday life |
| **Specific Expectation****Whole Numbers** |
| **B1.1** read and represent whole numbers up to and including 50, and describe various ways they are used in everyday life  | **Number Cluster 1: Counting**1: Counting to 202: Counting to 503: Counting On and Counting Back4: Ordinal Numbers5: Counting Consolidation**Number Cluster 6: Early Place Value**24: Tens and Ones | 3: Counting On and Counting Back Consider including numbers on Line Master C to larger numbers to 50. |
| **B1.2** compose and decompose whole numbers up to and including 50, using a variety of tools and strategies, in various contexts | **Number Cluster 5: Composing and Decomposing**17: Decomposing 1018: Numbers to 1019: Numbers to 2020: Money Amounts23: Composing and Decomposing Consolidation**Number Cluster 6: Early Place Value**25: Building and Naming Numbers | 20: Money AmountsYou may want to begin with money amounts to 10 cents and increase total to 50 cents as students are ready.23: Composing and Decomposing ConsolidationInclude fair sharing drawings: e.g., Choose a number. Use a drawing to share equally between 2 people. Use the same number to share among 4 people.25: Building and Naming NumbersUse cubes and numbers to 100. For combined grades use numbers to 200. |
| **B1.3** compare and order whole numbers up to and including 50, in various contexts | **Number Cluster 3: Comparing and Ordering**9: Comparing Sets Concretely10: Comparing Sets Pictorially11: Comparing Numbers to 5012: Comparing and Ordering Consolidation**Number Cluster 6: Early Place Value**24: Tens and Ones25: Building and Naming Numbers26: Different Representations27: Early Place Value Consolidation*Link to other strands:****Patterning and Algebra Cluster 3: Equality and Inequality****10: Exploring Sets**11: Making Equal Sets* | 9: Comparing Sets ConcretelyConsider using bags of 20 to 50 counters. Add more counters to bag when students are ready.25: Building and Naming NumbersConsider using cubes and numbers to 100. For combined grades use numbers to 200.26: Different RepresentationsConsider using cards to 50. For combined grades consider having students make their own cards for larger numbers (50-200)27: Early Place Value ConsolidationFor combined grades, have students work with larger numbers (up to 200). |
| **B1.4** estimate the number of objects in collections of up to 50 and verify their estimates by counting | **Number Cluster 2: Spatial Reasoning**6: Subitizing to 107: Estimating Quantities8: Spatial Reasoning Consolidation | 7: Estimating QuantitiesConsider extending the number of objects to 50. Use a referent of 5, 10, 20. Sort into piles of 10 and count (a ten frame can be used as support if needed).Are students able to explain why they think they have about 50 counters? Consider using the assessment chart and extend it to 50.8: Spatial Reasoning ConsolidationConsider creating a sheet with 35 and 50 dots. |
| **B1.5** count to 50 by 1s, 2s, 5s, and 10s, using a variety of tools and strategies | **Number Cluster 1: Counting**1: Counting to 202: Counting to 503: Counting On and Counting Back 4: Ordinal Numbers5: Counting Consolidation**Number Cluster 4: Skip-Counting**13: Skip-Counting Forward14: Skip-Counting with Leftovers15: Skip-Counting Backwards16: Skip-Counting Consolidation**Number Cluster 8: Financial Literacy**37: Counting Collections40: Financial Literacy: Consolidation | 3: Counting On and Counting Back Consider using larger numbers (to 50). Use the Line Master from this lesson and change numbers at the start and finish to reflect numbers to 50. When students seem ready, give them a number and have them count back 5 from that number. For combined grades consider using game boards to count on and back from different start numbers to 100.15: Skip-Counting BackwardsConsider extending to counting backward from 50. Use Line Masters 38 and 39 for choice of numbers. For assessment, track to numbers up to 50. |
| Specific Expectations Fractions |
| **B1.6** use drawings to represent and solve fair-share problems that involve 2 and 4 sharers, respectively, and have remainders of 1 or 2 | **Number Cluster 5: Composing and Decomposing**21: Equal Groups22: Equal Parts | 21: Equal GroupsConsider adapting the Line master to include an additional column for pictorial representation. 22: Equal PartsConsider equal sharing with wholes (ribbon, paper, string). Sharing with any number of friends (e.g., 2, 3, 4). Discuss the idea of sharing fairly. For combined grades consider using copies of the same item to explore the relation between number of equal parts and the size of the parts.Sharing Equally (2020) |
| **B1.7** recognize that one half and two fourths of the same whole are equal, in fair-sharing contexts**B1.8** use drawings to compare and order unit fractions representing the individual portions that result when a whole is shared by different numbers of sharers, up to a maximum of 10 | **Number Cluster 5: Composing and Decomposing**22: Equal Parts23: Composing and Decomposing Consolidation**Number Cluster 5: Composing and Decomposing**23: Composing and Decomposing Consolidation | 22: Equal PartsConsider equal sharing with wholes (ribbon, paper, string) Sharing with any number of friends. E.g. 2,3,4 Discuss the idea of sharing fairly. For combined grades consider using copies of the same item to explore the relation between number of equal parts and the size of the parts.Comparing and Ordering Unit Fractions (New 2020)23: Composing and Decomposing ConsolidationUse numbers to 50. Include fair sharing drawings: ex Choose a number. Use a drawing to share equally between 2 people. Use the same number to share among 4 people. |
| **B1.8** use drawings to compare and order unit fractions representing the individual portions that result when a whole is shared by different numbers of sharers, up to a maximum of 10 | **Number Cluster 5: Composing and Decomposing**23: Composing and Decomposing Consolidation | Comparing and Ordering Unit Fractions (New 2020)23: Composing and Decomposing ConsolidationConsider using numbers to 50. Include fair sharing drawings: e.g., choose a number. Use a drawing to share equally between 2 people. Use the same number to share among 4 people. |
| **Overall Expectation****B2. Operations:** use knowledge of numbers and operations to solve mathematical problems encountered in everyday life |
| **Specific ExpectationProperties and Relationships** |
| **B2.1** use the properties of addition and subtraction, and the relationship between addition and subtraction, to solve problems and check calculations | **Number Cluster 7: Operational Fluency**28: More or Less29: Adding to 2030: Subtracting to 5031: The Number Line32: Doubles33: Part-Part-Whole34: Solving Story Problems | 29: Adding to 20Consider supporting properties of addition (commutative, zero property). Make a line master with numeral cards 21-50. Have students select two cards each. Choose a numeral card for the total or write the numeral with a whiteboard marker for addition and subtraction to 50. 30: Subtracting to 50Consider supporting properties of subtraction (commutative does not work in subtraction, zero property); and relationship between addition and subtraction. 31: The Number LineConsider using numbers to 50. Include a number line to 50.33: Part-Part-WholeStudents may use more counters (up to 50) when they are ready. Create Line Master to record addition and subtraction sentences to represent their part-part-whole.34: Solving Story ProblemsUse visuals with more items. Could include things like grapes, tomatoes, juice boxes in packs of 3, toilet paper rolls.  |
| **Specific Expectation****Math Facts** |
| **B2.2** recall and demonstrate addition facts for numbers up to 10, and related subtraction facts | **Number Cluster 7: Operational Fluency**28: More or Less | Adding and Subtracting to 50 (New 2020) |
| **Specific Expectation****Mental Math** |
| **B2.3** use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 20, and explain the strategies used | **Number Cluster 7: Operational Fluency**28: More or Less29: Adding to 2030: Subtracting to 2031: The Number Line32: Doubles33: Part-Part-Whole | 28: More or LessConsider having students write corresponding number sentences.29: Adding to 20Support properties of addition (commutative, zero property) Make a line master with numerals cards 21-50. Have students select two salmon cards each. Choose a numeral card for the total or write the numeral with a whiteboard marker for addition and subtraction to 50. 30: Subtracting to 20Support properties of subtraction (commutative does not work in subtraction, zero property); and relationship between addition and subtraction. 31: The Number LineConsider using numbers to 50. Include a number line to 50.33: Part-Part-WholeStudents may use more counters (up to 50) when they are ready. Create Line Master to record addition and subtraction sentences to represent their part-part-whole. |
| **B2.4** use objects, diagrams, and equations to represent, describe, and solve situations involving addition and subtraction of whole numbers that add up to no more than 50 | **Number Cluster 7: Operational Fluency**29: Adding to 2030: Subtracting to 2031: The Number Line32: Doubles33: Part-Part-Whole34: Solving Story Problems35: Operational Fluency Consolidation | 29: Adding to 20Support properties of addition (commutative, zero property). Make a line master with numeral cards 21-50. Have students select two salmon cards each. Choose a numeral card for the total or write the numeral with a whiteboard marker for addition and subtraction to 50. 30: Subtracting to 20Support properties of subtraction (commutative does not work in subtraction, zero property); and relationship between addition and subtraction. Subtracting to 50 (New 2020)31: The Number LineConsider using numbers to 50. Include a number line to 50.33: Part-Part-WholeStudents may use more counters (up to 50) when they are ready. Create Line Master to record addition and subtraction sentences to represent their part-part-whole.34: Solving Story ProblemsUse visuals with more items. Could include things like grapes, tomatoes, juice boxes in packs of 3, toilet paper rolls. Include numbers to 50 when students are ready.35: Operational Fluency ConsolidationCreate pictures problems with greater numbers that sum to 50 when ready. |
| **B2.5** represent and solve equal-group problems where the total number of items is no more than 10, including problems in which each group is a half, using tools and drawings | **Number Cluster 5: Composing and Decomposing**21: Equal Groups23: Composing and Decomposing Consolidation | 21: Equal GroupsUse 20 or 18 linking cubes. Have students make towers of 2, 3, 4, 5, 10. Include a conversation on leftovers. Adapt Line master to include additional column for pictorial representation.Sharing Equally (New 2020)23: Composing and Decomposing ConsolidationConsider using numbers to 50. |

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| **Curriculum Expectations 2020** | **Mathology Grade 1** **Activity Kit (Prior to 2022)** | Ideas to work with Mathology Activities to meet the new Ontario Curriculum Expectations |
| **Overall Expectation****C1. Patterns and Relationships: identify, describe, extend, create, and make predictions about a variety of patterns, including those found in real-life contexts** |
| **Specific Expectation****Patterns** |
| **C1.1** identify and describe the regularities in a variety of patterns, including patterns found in real-life contexts | **Patterning and Algebra Cluster 1: Investigating Repeating Patterns**1: Repeating the Core2: Representing Patterns3: Predicting Elements4: Finding Patterns5: Investigating Repeating Patterns Consolidation | 3: Predicting ElementsConsider having partners cover part of the pattern with a sticky note and the other students determines the missing part. Refer to assessment line master 6.4: Finding PatternsConsider removing any numbers over 50. Have students find as many number patterns as they can with numbers 1-50. |
| **C1.2** create and translate patterns using movements, sounds, objects, shapes, letters, and numbers | **Patterning and Algebra Cluster 2: Creating Patterns**6: Extending Patterns7: Translating Patterns9: Creating Patterns Consolidation |  |
| **C1.3** determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in patterns | **Patterning and Algebra Cluster 1: Investigating Repeating Patterns**1: Repeating the Core3: Predicting Elements4: Finding Patterns**Patterning and Algebra Cluster 2: Creating Patterns**6: Extending Patterns8: Errors and Missing Elements | 3: Predicting ElementsConsider having partners cover part of the pattern with a sticky note and the other student determine the missing part.4: Finding PatternsConsider removing any numbers over 50. Have students find as many number patterns as they can with numbers 1-50. |
| **C1.4** create and describe patterns to illustrate relationships among whole numbers up to 50 | **Patterning and Algebra Cluster 1: Investigating Repeating Patterns**4: Finding Patterns | 4: Finding PatternsConsider removing any numbers over 50. Have students find as many number patterns as you can with numbers 1-50. |
| **Overall Expectation****C2. Equations and Inequalities:** demonstrate an understanding of variables, expressions, equalities, and inequalities, and apply this understanding in various contexts |
| **Specific Expectation****Variables** |
| **C2.1** identify quantities that can change and quantities that always remain the same in real-life contexts | *Link to other strands:****Number Cluster 5: Composing and Decomposing****20: Money Amounts****Number Cluster 8: Financial Literacy****36: Values of Coins****Measurement Cluster 3: Time and Temperature****19: Relating to Seasons**20: The Calendar**21: Time and Temperature Consolidation* | 20: Money AmountsYou may want to begin with money amounts to 10 cents and increase total to 50 cents as students are ready.36: Values of CoinsConsider introducing the idea that some quantities change and some always remain the same. A loonie is always worth (has a value of) one dollar, but if I have many dollars, the total value will change.19: Relating to SeasonsConsider introducing the idea of quantities that change and stay the same. For example: including holidays and their relationship to the seasons. There are always 4 seasons. To consolidate, relate the seasons to the months on the calendar. Discuss how there are always four seasons but the number of days until the seasons change will vary; or that the number of days in winter will stay the same each year but the number of snow days in winter will change from one year to the next. 20: The CalendarConsider discussing holidays that change from year to year and other holidays that are always on the same day. There are always 12 months each year, and 7 days each way. Discuss quantities that change from month to month. 21: Time and Temperature ConsolidationConsider other things Zoey could do at the zoo that reflect the calendar. e.g., the days she helps at the zoo (every Thursday or every Saturday); The day the zoo is closed (incorporate holidays that it would be closed); include a variety of seasons. |
| **Specific Expectation****Equalities and Inequalities** |
| **C2.2** determine whether given pairs of addition and subtraction expressions are equivalent or not | **Patterning and Algebra Cluster 3:** Equality and Inequality10: Exploring Sets11: Making Equal Sets12: Using Symbols 13: Equality and Inequality Consolidation  | 12: Using Symbols Consider providing students with expressions and have them determine if they are equivalent or not (e.g., 5 + 7 \_\_ 6 + 3; 10 + 3 \_\_\_ 5 + 6; 16 - 3 \_\_ 7 + 6 etc.). Consider including addition and subtraction questions.13: Equality and Inequality Consolidation Consider including addition and subtraction expressions and determine if they are equivalent or not. A number sentence is also called an expression. |
| **C2.3** identify and use equivalent relationships for whole numbers up to 50, in various contexts | **Patterning and Algebra Cluster 3: Equality and Inequality**11: Making Equal Sets | Decomposing Numbers to 50 (New 2020) |
| **Overall Expectation****C3. Coding:** solve problems and create computational representations of mathematical situations using coding concepts and skills |
| **Specification Expectation** **Coding Skills** |
| **C3.1** solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential events |  | Exploring Coding (New 2020)Coding on a Grid (New 2020)Number Codes (New 2020)Consolidation (New 2020) |
| **C3.2** read and alter existing code, including code that involves sequential events, and describe how changes to the code affect the outcomes |  | Number Codes (New 2020)Consolidation (New 2020) |
| **Overall Expectation****C4.** Mathematical Modellingapply the process of mathematical modelling to represent, analyse, make predictions, and provide insight into real-life situations |
| *This overall expectation has no specific expectations.* [*Mathematical modelling*](https://www.dcp.edu.gov.on.ca/en/) *is an* [*iterative*](https://www.dcp.edu.gov.on.ca/en/) *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* | **Patterning and Algebra****Cluster 2: Creating Patterns**7: Translating Patterns9: Creating Patterns Consolidation **Patterning and Algebra Cluster 3: Equality and Inequality**12: Using Symbols*Link to other strands:****Number Cluster 3: Comparing and Ordering****10: Comparing Sets Pictorially****Number Cluster 4: Skip-Counting****14: Skip-Counting with leftovers****Number Cluster 5: Composing and Decomposing****19: Composing and Decomposing numbers to 20**20: Money Amounts****Number Cluster 6: Early Place Value****26: Different Representations**27: Early Place Value Consolidation****Number Cluster 7: Operational Fluency****34: Math in Pictures**35: Operational Fluency Consolidation****Number Cluster 8: Financial Literacy****37: Counting Collections**40: Financial Literacy Consolidation****Data Management and Probability******Cluster 1: Data Management****2: Making Concrete Graphs**4: Data management Consolidation****Geometry Cluster 3: Geometric Relationships****15: Geometric Relationships Consolidation****Geometry Cluster 4: Symmetry****18: Symmetry Consolidation* | 12: Using SymbolsConsider providing students with expressions and have them determine if they are equivalent or not (e.g., 5 + 7 \_\_ 6 + 3; 10 + 3 \_\_\_ 5 + 6; 16 - 3 \_\_ 7 + 6 etc. Consider including addition and subtraction questions.20: Money Amounts You may want to begin with money amounts to 10 cents and increase total to 50 cents as students are ready.26: Different RepresentationsConsider using cards to 50.27: Early Place Value ConsolidationFor combined grades, give students larger numbers (to 200).2: Making Concrete Graphs Consider representing students favorite season with a tally chart. Students create a tally chart of their linking cubes prior to representing them on the graph. Combined grade extensions: students use two-way tally tables. On the Assessment Chart: add the information in the last box (compares and orders data).4: Data management ConsolidationConsider including tally charts and have students compare and order the data greatest to least. Have students make a concrete graph or a pictograph on chart paper to show the sort.18: Symmetry Consolidation Consider collecting two-dimensional shapes and three-dimensional objects that have matching halves and determining whether shapes and objects are symmetrical. Make a chart of pictures that show 2-D shapes and 3-D objects that have matching halves (symmetrical). |

**Mathology 1 Correlation (Data Management and Probability) – Ontario**

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| **Curriculum Expectations 2020** | **Mathology Grade 1** **Activity Kit (Prior to 2022)** | Ideas to work with Mathology Activities to meet the new Ontario Curriculum Expectations |
| **Overall Expectation****D1. Data Literacy:** manage, analyse, and use data to make convincing arguments and informed decisions, in various contexts drawn from real life |
| **Specific Expectation****Data Collection and Organization** |
| **D1.1** sort sets of data about people or things according to one attribute, and describe the rules used for sorting | **Data Management and Probability Cluster 1: Data Management**1: Interpreting Graphs*Link to other strands:****Geometry Cluster 1: 2-D Shapes****1: Sorting Shapes**5: Sorting Rules**6: 2-D Shapes Consolidation* | 1: Interpreting GraphsConsider ordering the categories of data from greatest to least frequency for various data sets displayed in tally chart, concrete graphs, and pictographs. Introduce how the frequency of a category represents the count or how many. |
| **D1.2** collect data through observations, experiments, or interviews to answer questions of interest that focus on a single piece of information, record the data using methods of their choice; and organize the data in tally tables | **Data Management and Probability Cluster 1: Data Management**2: Making Concrete Graphs3: Making Pictographs4: Data Management Consolidation | 2: Making Concrete GraphsConsider representing students’ favourite season with a tally chart. Students create a tally chart of their linking cubes prior to representing them on the graph. Combined grade extensions: students use two-way tally tables. On the Assessment Chart: add the information in the last box (compares and orders data). |
| **Specific Expectation****Data Visualization** |
| **D1.3** display sets of data, using one-to-one correspondence, in concrete graphs and pictographs with proper sources, titles, and labels | **Data Management and Probability Cluster 1: Data Management**2: Making Concrete Graphs3: Making Pictographs4: Data Management Consolidation | 2: Making Concrete GraphsConsider representing students’ favourite season with a tally chart. Students create a tally chart of their linking cubes prior to representing them on the graph. Combined grade extensions: students use two-way tally tables. On the Assessment Chart: add the information in the last box (compares and orders data). 3: Making PictographsConsider discussing making convincing arguments and informed decisions (e.g., Do we need more stop signs? Why or Why not?). Include that pictographs include sources, titles and labels.4: Data Management ConsolidationConsider including tally charts and have students compare and order the data greatest to least. Have students make a concrete graph or a pictograph on chart paper to show the sort. |
| **Specific Expectation****Data Analysis** |
| **D1.4** order categories of data from greatest to least frequency for various data sets displayed in tally tables, concrete graphs, and pictographs | **Data Management and Probability Cluster 1: Data Management**1: Interpreting Graph | 1: Interpreting GraphConsider ordering the categories of data from greatest to least frequency for various data sets displayed in tally tables, concrete graphs, and pictographs. Introduce how the frequency of a category represents the count or how many. |
| **D1.5** analyze different sets of data presented in various ways, including in tally tables, concrete graphs, and pictographs, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions | **Data Management and Probability Cluster 1: Data Management** 1: Interpreting Graphs2: Making Concrete Graphs3: Making Pictographs4: Data Management Consolidation | 2: Making Concrete GraphsConsider representing students’ favourite season with a tally chart. Students create a tally chart of their linking cubes prior to representing them on the graph. Combined grade extensions: students use two-way tally tables. On the Assessment Chart: add the information in the last box (compares and orders data).3: Making PictographsConsider discussing making convincing arguments and informed decisions (e.g., Do we need more stop signs? Why or Why not?). Include that pictographs include sources, titles and labels.4: Data Management ConsolidationConsider including tally charts and have students compare and order the date greatest to least. Have students make a concrete graph or a pictograph on chart paper to show the sort. |
| **Overall Expectation****D2. Probability:** describe the likelihood that events will happen and use that information to make predictions |
| **Specific Expectation****Probability** |
| **D2.1** use mathematical language, including the terms “impossible”, “possible”, and “certain”, to describe the likelihood of events happening, and use that likelihood to make predictions and informed decisions | **Data Management and Probability Cluster 2: Probability and Chance**5: Likelihood of Events 6: Probability and Chance Consolidation | 6: Probability and Chance ConsolidationConsider predicting and recording the likelihood of the same events happening in the community (e.g., the weather tomorrow). Have students make informed decisions about these predictions. |
| **D2.2** make and test predictions about the likelihood that the categories in a data set will have the same frequencies in data collected from a different population of the same size |  | Making and Testing Predictions (New 2020) |

**Mathology 1 Correlation (Geometry and Measurement) – Ontario**

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| **Curriculum Expectations 2020** | **Mathology Grade 1** **Activity Kit (Prior to 2022)** | Ideas to work with Mathology Activities to meet the new Ontario Curriculum Expectations |
| **Overall Expectation****E1. Geometric and Spatial Reasoning:** describe and represent shape, location, and movement by applying geometric properties and spatial relationships in order to navigate the world around them |
| **Specific Expectation** **Geometric Reasoning** |
| **E1.1** sort three-dimensional objects and two-dimensional shapes according to one attribute at a time, and identify the sorting rule being used | **Geometry Cluster 1: 2-D Shapes**1: Sorting Shapes 2: Identifying Triangles3: Identifying Rectangles4: Visualizing Shapes5: Sorting Rules 6: 2D Shapes Consolidation**Geometry Cluster 2: 3-D Solids**7: Exploring 3-D Solids8: Sorting 3-D Solids9: Identifying the Sorting Rule10: 3-D Solids Consolidation | 10: 3-D Solids ConsolidationConsider include descriptions of attributes of length and angle. |
| **E1.2** construct three-dimensional objects, and identify two-dimensional shapes contained within structures and objects | **Geometry Cluster 3: Geometric Relationships**11: Faces of Solids15: Geometric Relationships Consolidation | Constructing Solids and Skeletons (New 2020) |
| **E1.3** construct and describe two-dimensional shapes and three-dimensional objects that have matching halves. | **Geometry Cluster 4: Symmetry**16: Finding Lines of Symmetry18: Symmetry Consolidatio**n** | 18: Symmetry ConsolidationConsider collecting two-dimensional shapes and three-dimensional objects that have matching halves, and determine whether shapes and objects are symmetrical. Make a chart of pictures that show 2-D shapes and 3-D objects that have matching halves (symmetrical).Building Symmetrical Solids (New 2020) |
| **Specific Expectation****Location and Movement** |
| **E1.4** describe the relative locations of objects or people, using positional language | **Geometry Cluster 5: Location and Movement**19: Perspective Taking 20: Mapping21: Location and Movement Consolidation | 21: Location and Movement ConsolidationConsider adapting to include read and alter code. |
| **E1.5** give and follow directions for moving from one location to another | **Geometry Cluster 5: Location and Movement**20: Mapping21: Location and Movement Consolidation | 21: Location and Movement ConsolidationConsider adapting to include read and alter code. |
| **Overall Expectation****E2. Measurement:** compare, estimate, and determine measurements in various contexts |
| **Specific ExpectationAttributes** |
| **E2.1** identify measurable attributes of two-dimensional shapes and three-dimensional objects, including length, area, mass, capacity, and angle | **Measurement Cluster 1: Comparing Objects**1: Comparing Length 2: Comparing Mass 3: Comparing Capacity 4: Making Comparisons 5: Comparing Area 6: Comparing Objects Consolidation**Geometry Cluster 2: 3-D Solids**7: Exploring 3-D Solids10: 3-D Solids Consolidation |  Identifying Attributes (New 2020)1: Comparing LengthConsider adding comparisons of length, width, height. Throughout the lesson, review length being measured in different directions (up and down... height; etc.) 6: Comparing Objects ConsolidationConsider including collections of 2-D and 3-D items. Include angles and length for 2-D shapes and 3-D solids. Use angles as the amount of turn between one line and another.10: 3-D Solids ConsolidationConsider omitting references to capacity. |
| **E2.2** compare several everyday objects and order them according to length, area, mass, and capacity | **Measurement Cluster 1: Comparing Objects**1: Comparing Length 2: Comparing Mass 3: Comparing Capacity 4: Making Comparisons 5: Comparing Area 6: Comparing Objects Consolidation | 1: Comparing Length Consider adding comparisons of length, width, height. Throughout the lesson review length being measured in different directions (up and down... height; etc.)6: Comparing Objects ConsolidationConsider including collections of 2-D and 3-D items. Include angles and length for 2-D shapes and 3-D solids. Use angles as the amount of turn between one line and another. |
| **Specific Expectation****Time** |
| **E2.3** read the date on a calendar, and use a calendar to identify days, weeks, months, holidays, and seasons | **Measurement Cluster 3: Time and Temperature**19: Relating to Seasons20: The Calendar*Link to other strands:****Number Cluster 1: Counting****4: Ordinal Numbers* | 19: Relating to SeasonsConsider introducing the idea of quantities that change and stay the same. For example: including holidays and their relationship to the seasons. There are always 4 seasons. To consolidate, relate the seasons to the months on the calendar. Discuss how there are always four seasons but the number of days until the seasons change will vary; or that the number of days in winter will stay the same each year but the number of snow days in winter will change from one year to the next. 20: The CalendarConsider discussing holidays that change from year to year and other holidays that are always on the same day. There are always 12 months each year, and 7 days each way. Discuss quantities that change from month to month.  |

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| **Curriculum Expectations 2020** | **Mathology Grade 1** **Activity Kit (Prior to 2022)** | Ideas to work with Mathology Activities to meet the new Ontario Curriculum Expectations |
| **Overall Expectation****F1. Money and Finances:** demonstrate an understanding of the value of Canadian currency |
| **Specific Expectations****Money Concepts** |
| **F1.1** identify the various Canadian coins up to 50¢ and coins and bills up to $50, and compare their values | **Number Cluster 5: Composing and Decomposing**20: Money Amounts**Number Cluster 8: Financial Literacy**36: Values of Coins37: Counting Collections40: Financial Literacy Consolidation | 20: Money AmountsConsider beginning with money amounts to 10.36: Values of CoinsConsider introducing the idea that some quantities change and some always remain the same. A loonie is always worth (has a value of) one dollar, but if I have many dollars, the total value will change. Values of Bills (New 2020) |