## Ontario Mathematics

EP Curriculum Map

## Grade 3 Mathematics

## B. Number

## B1. Number Sense

## Specific Expectations

## Lessons

B1.1. read, represent, compose, and decompose whole numbers up to and including 1000, using a variety of tools and strategies, and describe various ways they are used in everyday life
B1.2. compare and order whole numbers up to and including 1000, in various contexts

B1.3 round whole numbers to the nearest ten or hundred, in various contexts

B1.4 count to 1000 , including by 50 s, 100 s, and 200 s, using a variety of tools and strategies

B1.5 use place value when describing and representing multidigit numbers in a variety of ways, including with base ten materials

B1.6 use drawings to represent, solve, and compare the results of fair-share problems that involve sharing up to 20 items among 2, 3, $4,5,6,8$, and 10 sharers, including problems that result in whole numbers, mixed numbers, and fractional amounts

B1.7 represent and solve fair-share problems that focus on determining and using equivalent fractions, including problems that involve halves, fourths, and eighths; thirds and sixths; and fifths and tenths

English

1. Exploring Whole Numbers
2. Comparing and Ordering Numbers up to 1000
3. Rounding to the Nearest Ten and Hundred
4. Counting to 1000
5. Fair-Share Problems
6. Sharing Equally with Equivalent Fractions

French

1. L'exploration des nombres entiers!
2. Comparer et ordonner des nombres entiers jusqu'à 1000
3. Arrondir à la dizaine et la centaine la plus proche
4. Compter jusqu'à 1000 : compter par bonds avec des outils et des stratégies 5. Les problèmes de partage équitable 6. Le partage équitable avec les fractions

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## B2. Operations

## Specific Expectations

## Lessons

B2.1. use the properties of operations, and the relationships between multiplication and division, to solve problems and check calculations
B2.2. recall and demonstrate multiplication facts of 2,5 , and 10 , and related division facts

B2.3. use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 1000, and explain the strategies used
B2.4 demonstrate an understanding of algorithms for adding and subtracting whole numbers by making connections to and describing the way other tools and strategies are used to add and subtract

B2.5 represent and solve problems involving the addition and subtraction of whole numbers that add up to no more than 1000 , using various tools and algorithms

B2.6 represent multiplication of numbers up to $10 \times 10$ and division up to $100 \div 10$, using a variety of tools and drawings, including arrays
B2.7 represent and solve problems involving multiplication and division, including problems that involve groups of one half, one fourth, and one third, using tools and drawings

B2.8 represent the connection between the numerator of a fraction and the repeated addition of the unit fraction with the same denominator using various tools and drawings, and standard fractional notation

B2.9 use the ratios of 1 to 2,1 to 5 , and 1 to 10 to scale up numbers and to solve problems

## English

1. Mastery of 2,5 and 10 Multiplication

Facts
2. Mental Math with Addition and Subtraction
3. Addition and Subtraction: Tools and Algorithms
4. Visualizing Multiplication and Division
5. Unit fractions
6. Ratios

French

1. Les faits de multiplication $2,5,10$
2. Calculs mentaux avec addition et soustraction
3. Les outils et les algorithmes
4. La visualisation de la multiplication et de la division
5. Les fractions unitaires
6. Les ratios

## C. Algebra

## C1. Patterns and Relationships

| Specific Expectations | Lessons |
| :---: | :---: |
| C1.1 identify and describe repeating elements and operations in a variety of patterns, including patterns found in real-life contexts | English <br> 1. Pattern Detectives |
| C1.2 create and translate patterns that have repeating elements, movements, or operations using various representations, including shapes, numbers, and tables of values | 2. Creating and Translating Patterns <br> 3. Pattern Extenders and Predictors |
| C1.3 determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in patterns that have repeating elements, movements, or operations | 1. Les modèles de mathématiques <br> 2. Créer et traduire des suites <br> 3. Prolonger et prédire les suites |
| C1.4 create and describe patterns to illustrate relationships among whole numbers up to 1000 |  |

## C2. Equations and Inequalities

| Specific Expectations | Lessons |
| :--- | :--- |
| C2.1 describe how variables are used, and use them in various | English |
| contexts as appropriate | 1. Exploring Variables |
| C2.2 determine whether given sets of addition, subtraction, | 2. Equivalent Expressions |
| multiplication, and division expressions are equivalent or not | French |
| C2.3 identify and use equivalent relationships for whole numbers up | 1. Explorer les variables |
| to 1000, in various contexts | $\underline{2 . L e s ~ e x p r e s s i o n s ~ e ́ q u i v a l e n t e s ~}$ |

## C3. Coding

## Specific Expectations

C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential, concurrent, and repeating events

C3.2 read and alter existing code, including code that involves sequential, concurrent, and repeating events, and describe how changes to the code affect the outcomes

## Lessons

English

1. Coding Effects

French

1. Les effets de codage

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## D. Data

## D1. Data Literacy

Specific Expectations
D1.1. sort sets of data about people or things according to two and three attributes, using tables and logic diagrams, including Venn, Carroll, and tree diagrams, as appropriate
D1.2. collect data through observations, experiments, and interviews to answer questions of interest that focus on qualitative and quantitative data, and organize the data using frequency tables
D1.3. display sets of data, using many-to-one correspondence, in pictographs and bar graphs with proper sources, titles, and labels, and appropriate scales

D1.4. determine the mean and identify the mode(s), if any, for various data sets involving whole numbers, and explain what each of these measures indicates about the data

D1.5. analyse different data sets presented in various ways, including in frequency tables and in graphs with different scales, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions

## Lessons

## English

1. Collecting and Organizing Data
2. Presenting Data
3. Analyzing Data Sets

French

1. Collecte et organisation des données
2. Présentation des données
3. Analyser des données

## D2. Probability

Specific Expectations
D2.1. use mathematical language, including the terms "impossible", "unlikely", "equally likely", "likely", and "certain", to describe the likelihood of events happening, and use that likelihood to make predictions and informed decisions
D2.2. make and test predictions about the likelihood that the mean and the mode(s) of a data set will be the same for data collected from different populations

## Lessons

English

1. Likelihood and Predictions

French

1. Probabilité et prédictions

## E. Spatial Sense

## E1. Geometric and Spatial Reasoning

| Specific Expectations | Lessons |
| :--- | :--- |
| E1.1. sort, construct, and identify cubes, prisms, pyramids, cylinders, <br> and cones by comparing their faces, edges, vertices, and angles | English |
| E1.2. compose and decompose various structures, and identify the <br> two-dimensional shapes and three-dimensional objects that these <br> structures contain | 2. Movement and Directions |
| E.1.3. identify congruent lengths, angles, and faces of <br> three-dimensional objects by mentally and physically matching <br> them, and determine if the objects are congruent | French |
| E.1.4. give and follow multistep instructions involving movement from <br> one location to another, including distances and half and <br> quarter-turns |  |

## E2. Measurement

Specific Expectations/Attentes Spécifiques
E2.1. use appropriate units of length to estimate, measure, and compare the perimeters of polygons and curved shapes, and construct polygons with a given perimeter
E.2.2. explain the relationships between millimetres, centimetres, metres, and kilometres as metric units of length, and use benchmarks for these units to estimate lengths
E.2.3. use nonstandard units appropriately to estimate, measure, and compare capacity, and explain the effect that overfilling or underfilling, and gaps between units, have on accuracy
E.2.4. compare, estimate, and measure the mass of various objects, using a pan balance and non-standard units
E.2.5. use various units of different sizes to measure the same attribute of a given item, and demonstrate that even though using different-sized units produces a different count, the size of the attribute remains the same
E.2.6. use analog and digital clocks and timers to tell time in hours, minutes, and seconds
E.2.7. compare the areas of two-dimensional shapes by matching, covering, or decomposing and recomposing the shapes, and demonstrate that different shapes can have the same area
E.2.8. use appropriate non-standard units to measure area, and explain the effect that gaps and overlaps have on accuracy

## Lessons

## English

1. Perimeters and Polygons
2. Explaining Metric Units
3. Estimating Capacity
4. Comparing Mass with a Pan Balance
5. Telling Time
6. Measuring Area

French

1. Les polygones et les périmètres
2. Expliquer les unités métriques
3. L'estimation des capacités
4. Comparer la masse avec une balance à plateaux
5. Lire l'heure
6. La mesure des aires

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E.2.9. use square centimetres (cm2) and square metres (m2) to estimate, measure, and compare the areas of various two dimensional shapes, including those with curved sides

## F. Financial Literacy

## F1. Money and Finances

| Specific Expectations/Attentes Spécifiques | Lessons |
| :--- | :--- |
| F1.1. estimate and calculate the change required for various simple | English |
| cash transactions involving whole dollar amounts and amounts of | 1. Money Math |
| less than one dollar | French |
|  | 1. L'argent |

