

# Mathematics 1

*Foundational Outcomes*

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## Outcomes Framework Grade 1 (2020-21)

In September 2020, teachers will be working hard to create a space that is safe and welcoming for all learners no matter the location of their “classroom”. The first weeks will still be a time to establish a sense of community, engage learners in rich interactive experiences to promote critical thinking and create opportunities for collaboration and discussion. This is an opportune time to develop a culture and a climate for mathematics learning, conducive to collaboration, risk taking and inquiry.

The **Foundational Outcomes** identified in this document represent outcomes determined to be relevant for future learning in mathematics. Decisions about foundational outcomes were made in consultation with teachers, provincial mathematics team, Board and Regional Centre staff. The foundational outcomes are meant to guide teachers in making decisions about creating learning experiences that will prepare and engage their learners in a responsive way. However, a teacher’s professional judgment remains the most important guide to effectively responding to the needs of their learners.

Colour coding has been used to identify outcomes and indicators as foundational (**green**), optional (**orange**) or non-foundational (**red**) for the 2020-2021 school year.

**N01:** Students will be expected to say the number sequence by:

- 1s, forward and backward between any two given numbers, 0 to 100
- 2s to 20, forward starting at 0
- 5s to 100, forward starting at 0, using a hundred chart or a number line
- 10s to 100, forward starting at 0, using a hundred chart or a number line

**Performance Indicators:** all indicators

**N02:** Students will be expected to recognize, at a glance, and name the quantity represented by familiar arrangements of one to ten objects or dots.

**Performance Indicators:** all indicators

**N03:** Students will be expected to demonstrate an understanding of counting to 20 by

- indicating that the last number said identifies “how many”
- showing that any set has only one count
- using the counting-on strategy

**Performance Indicators:** all indicators

**N04:** Students will be expected to represent and partition numbers to 20.

**Performance Indicators:** all indicators

**N05:** Students will be expected to compare sets containing up to 20 objects to solve problems using referents and one-to-one correspondence.

**Performance Indicators:** all indicators

**N06:** Students will be expected to estimate quantities to 20 by using referents.

**Performance Indicators:** all indicators

**N07:** Students will be expected to demonstrate an understanding of conservation of number for up to 20 objects.

**Performance Indicators:** all indicators

**N08:** Students will be expected to identify the number, up to 20, that is one more, two more, one less, and two less than a given number.

**Performance Indicators:** all indicators

**N09:** Students will be expected to demonstrate an understanding of the addition of two one-digit numbers and the corresponding subtraction, concretely, pictorially, and symbolically, in join, separate, equalize/compare, and part-part-whole situations.

**Performance Indicators:**

N09.01: Act out story problems that are presented orally or through shared reading.

N09.02: Model story problems with manipulatives or pictures, find and share solutions using counting strategies, and record number sentences that represent how they thought about the problems.

N09.03: Create story problems that connect to student experiences.

N09.04: Create story problems for given number sentences.

**N10:** Students will be expected to use and describe strategies to determine sums and differences using manipulatives and visual aids. Strategies include:

- counting on or counting back
- one more or one less
- making ten
- doubles
- near doubles

**Performance Indicators**

N10.01: Use and describe a personal strategy to determine a sum.

N10.02: Use and describe a personal strategy to determine a difference.

N10.03: Use and describe how two different strategies can be used to determine a sum or difference.

**PR01:** Students will be expected to demonstrate an understanding of repeating patterns (two to four elements) by identifying, describing, reproducing, extending, and creating patterns using manipulatives, diagrams, sounds, and actions.

**Performance Indicators**

PR01.01: Describe a given repeating pattern containing two to four elements in its core.

PR01.02: Identify errors in a given repeating pattern.

PR01.03: Identify the missing element(s) in a given repeating pattern.

PR01.04: Create and describe a repeating pattern using a variety of manipulatives, musical instruments, and actions.

PR01.05: Reproduce and extend a given repeating pattern using manipulatives, diagrams, sounds, and actions.

PR01.06: Identify and describe a repeating pattern in the environment (e.g., classroom, outdoors) using everyday language.

PR01.07: Identify repeating events (e.g., days of the week, birthdays, seasons).

**PR02:** Students will be expected to translate repeating patterns from one representation to another.

**Performance Indicators: all indicators**

**PR03:** Students will be expected to describe equality as a balance and inequality as an imbalance, concretely and pictorially (0 to 20).

**Performance Indicators: all indicators**

**PR04:** Students will be expected to record equalities using the equal symbol.

**Performance Indicators: all indicators**

**M01:** Students will be expected to demonstrate an understanding of measurement as a process of comparing by:

- identifying attributes that can be compared
- ordering objects
- making statements of comparison
- filling, covering, or matching

**Performance Indicators**

M01.01: Identify common attributes, such as length, mass, volume, capacity, and area that could be used to compare a given set of two objects.

M01.02: Compare and order two given objects and identify the attributes used to compare.

M01.03: Predict which object in a set is longest/shortest, determine by matching and explain the reasoning.

M01.04: Predict which object in a set is heaviest/lightest, determine by comparing and explain the reasoning.

M01.05: Predict which object in a set is largest/smallest, determine by comparing and explain the reasoning.

M01.06: Predict which object in a set holds the most/least, determine by filling and explain the reasoning.

M01.07: Predict which figure in a set has the greatest/least area, determine by covering and explain the reasoning.

**G01:** Students will be expected to sort 3-D objects and 2-D shapes using one attribute and explain the sorting rule.

**Performance Indicators**

G01.01: Sort a given set of familiar 3-D objects or 2-D shapes using a given sorting rule.

G01.02: Sort a given set of familiar 3-D objects using one attribute determined by the student, and explain the sorting rule.

G01.03: Sort a given set of 2-D shapes using a one attribute determined by the student and explain the sorting rule.

G01.04: Determine the difference between two given pre-sorted sets of familiar 3-D objects or 2-D shapes and explain a possible sorting rule used to sort them.

**G02:** Students will be expected to replicate composite 2-D shapes and 3-D objects.

**Performance Indicators:** all indicators

**G03:** Students will be expected to identify 2-D shapes in 3-D objects.

**Performance Indicators:** all indicators