

Mathematics 1

Outcomes

Website References

Website references contained within this document are provided solely as a convenience and do not constitute an endorsement by the Department of Education of the content, policies, or products of the referenced website.

The department does not control the referenced websites and subsequent links, and is not responsible for the accuracy, legality, or content of those websites. Referenced website content may change without notice.

Regional Education Centres and educators are required under the Department's Public School Programs Network Access and Use Policy to preview and evaluate sites before recommending them for student use. If an outdated or inappropriate site is found, please report it to <curriculum@novascotia.ca>.

Mathematics Grade 1

© Crown copyright, Province of Nova Scotia, 2022

Prepared by the Department of Education and Early Childhood Development

This is the most recent version of the current curriculum materials as used by teachers in Nova Scotia.

The contents of this publication may be reproduced in part provided the intended use is for noncommercial purposes and full acknowledgment is given to the Nova Scotia Department of Education

Mathematics Grade 1 Outcomes

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:

- N01.01 Recite forward by 1s the number sequence between two given numbers, 0 to 100.
N01.02 Recite backward by 1s the number sequence between two given numbers, 0 to 100.
N01.03 Record a given numeral, 0 to 100, presented orally.
N01.04 Read a given presented numeral, 0 to 100.
N01.05 Skip count by 2s to 20 starting at 0.
N01.06 Skip count by 5s to 100 starting at 0, using a hundred chart or a number line.
N01.07 Skip count forward by 10s to 100 starting at 0, using a hundred chart or a number line.
N01.08 Identify and correct errors and omissions in a given number sequence

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:

- N02.01 Look briefly at a given familiar arrangement of objects or dots and identify the number represented without counting.
N02.02 Identify the number represented by a given arrangement of counters or dots on a ten-frame.

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:

- N03.01 Answer the question, How many are in the set? using the last number counted in a given set.
N03.02 Identify and correct counting errors in a given counting sequence.
N03.03 Show that the count of the number of objects in a given set does not change regardless of the order in which the objects are counted.
N03.04 Record the number of objects in a set using the numeral symbol.
N03.05 Determine the total number of objects in a given set, starting from a known quantity and counting on.

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

Performance Indicators:

- N04.01 Represent a given number up to 20 using a variety of manipulatives, including ten-frames and created materials.
- N04.02 Model a given number up to 20 using a variety of pictorial representations.
- N04.03 Find examples of a given number in the environment.
- N04.04 Place given numerals on a number line with benchmarks 0, 5, 10, 15, and 20.
- N04.05 Partition any given quantity up to 20 into two parts and identify the number of objects in each part.
- N04.06 Model a given number using two different objects.

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:

- N05.01 Build a set that has more, fewer, or as many objects as a given set, up to 20 objects.
- N05.02 Build several sets of different objects that have the same given number of objects in the set.
- N05.03 Compare two given sets using one-to-one correspondence and describe them using comparative words, such as more, fewer, or as many.
- N05.04 Compare a set to a given referent using comparative language.
- N05.05 Solve, using pictures and words, given story problems that involve the comparison of two quantities.

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

Performance Indicators:

- N06.01 Estimate a given quantity by comparing it to a given referent (known quantity).
- N06.02 Select an estimate for a given quantity by choosing between at least two possible choices and explain the choice.

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

Performance Indicators:

- N07.01 Explain why for a given number of counters, no matter how they are arranged, the total number of counters does not change.
- N07.02 Group a set of given counters in more than one way.
- N07.03 Explain why for a given number of counters, no matter how they are grouped, the total number of counters does not change.

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:

N08.01 Name the number that is one more, two more, one less, or two less than a given number, up to 20.

N08.02 Represent a number on ten-frames that is one more, two more, one less, or two less than a given number.

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, 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

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.

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.

PR.01.08 Identify the core of a repeating pattern

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

Performance Indicators:

PR03.01 Construct two equal sets using the same objects (same shape and mass) and demonstrate their equality of number using a balance scale.

PR03.02 Construct two unequal sets using the same objects (same shape and mass) and demonstrate their inequality of number using a balance scale.

PR03.03 Determine if two given concrete sets are equal or unequal and explain the process used.

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

Performance Indicators: all

PR04.01 Represent a given pictorial or concrete equality in symbolic form.

PR04.02 Represent a given equality using manipulatives or pictures.

PR04.03 Provide examples of equalities where the given sum or difference is on either the left or right side of the equal symbol (=).

PR04.04 Record different representations of the same quantity (0 to 20) as equalities.

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 and mass, 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.

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 a single attribute determined by the student and explain the sorting rule.

G01.03 Sort a given set of 2-D shapes using a single 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:

G02.01 Select 2-D shapes from a given set of 2-D shapes to reproduce a given composite 2-D shape.

G02.02 Select 3-D objects from a given set of 3-D objects to reproduce a given composite 3-D object.

G02.03 Predict and select the 2-D shapes used to produce a composite 2-D shape, and verify by deconstructing the composite shape.

G02.04 Predict and select the 3-D objects used to produce a composite 3-D object, and verify by deconstructing the composite object.

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

Performance Indicators:

G03.01 Identify the shape of the faces of a 3-D object.

G03.02 Identify 3-D objects in the environment that have faces that are a given 2-D shape.