## General and Specific Learning Outcomes with Achievement Indicators by Grade

|  | Kindergarten Strand: Number | General Learning Outcome: <br> Develop number sense. |
| :---: | :---: | :---: |
|  | Specific Learning Outcomes It is expected that students will: | Achievement Indicators <br> The following set of indicators may be used to determine whether students have met the corresponding specific outcome. |
| K.N.1. | Say the number sequence by 1 s , starting anywhere from 1 to 30 and from 10 to 1. <br> [C, CN, V] | - Recite the number sequence from 1 to 30 and from 10 to 1. <br> - Name the number that comes after a given number, 1 to 9 . <br> - Name the number that comes before a given number, 2 to 10. <br> - Recite number names from a given number to a stated number (forward - 1 to 10, backward - 10 to 1) using visual aids. |
| K.N.2. | Subitize and name familiar arrangements of 1 to 6 dots (or objects). <br> [C, CN, ME, V] | - Look briefly at a given familiar arrangement of 1 to 6 dots (or objects), and identify the number represented without counting. <br> - Identify the number represented by a given dot arrangement on a five frame, and describe the number's relationship to 5 . <br> - Identify the number represented by a given dot arrangement on a five frame, and identify the numbers that are one more and one less. |
| K.N.3. | Relate a numeral, 1 to 10 , to its respective quantity. [CN, R, V] | - Construct a set of objects corresponding to a given numeral. <br> - Name the number for a set of objects. <br> - Hold up the appropriate number of fingers for a given numeral. <br> - Match numerals with their pictorial representations. |
| K.N.4. | Represent and describe numbers 2 to 10 in two parts, concretely and pictorially. <br> [C, CN, ME, R, V] | - Show a number as two parts, using fingers, counters, or other objects, and name the number of objects in each part. <br> - Show a number as two parts using pictures, and name the number of objects in each part. |

## Kindergarten

| [C] | Communication | [PS] | Problem Solving |
| :---: | :---: | :---: | :---: |
| [CN] | Connections | [R] | Reasoning |
| [ME] | Mental Mathematics | [T] | Technology |
|  | and Estimation | [V] | Visualization |

## Strand: <br> Number

## General Learning Outcome: <br> Develop number sense.

## Specific Learning Outcomes

It is expected that students will:

Achievement Indicators
The following set of indicators may be used to determine whether students have met the corresponding specific outcome.
K.N.5. Demonstrate an understanding of counting to 10 by

- indicating that the last number said identifies "how many"
- showing that any set has only one count
[C, CN, ME, R, V]
K.N.6. Compare quantities, 1 to 10 ,
- using one-to-one correspondence
- by ordering numbers representing different quantities
[C, CN, V]
- Answer the question, "How many are in the set?" using the last number counted in a set.
- Show that the count of the number of objects in a set does not change regardless of the order in which the objects are counted.
- Count the number of objects in a given set, rearrange the objects, predict the new count, and recount to verify the prediction.
- Construct a set to show more than, fewer than, or as many as a given set.
- Compare two sets through direct comparison, and describe the sets using words such as "more," "fewer," "as many as," or "the same number."
- Order quantities using objects, five frames, ten frames, or dot cards.
- Order, using at least two benchmarks, numerals 1 to 10 on a vertical or horizontal number line.


## Kindergarten

| [C] | Communication | [PS] | Problem Solving |
| :--- | :--- | ---: | :--- |
| [CN] Connections | [R] | Reasoning |  |
| [ME] Mental Mathematics | [T] | Technology |  |
| and Estimation | [V] | Visualization |  |

## Strand:

Patterns and Relations (Patterns)

## Specific Learning Outcomes

It is expected that students will:
K.PR.1. Demonstrate an understanding of repeating patterns (two or three elements) by

- identifying
- reproducing
- extending
- creating
patterns using manipulatives, sounds, and actions.
[C, CN, PS, V]


## General Learning Outcome:

Use patterns to describe the world and solve problems.

## Achievement Indicators

The following set of indicators may be used to determine whether students have met the corresponding specific outcome.

- Distinguish between repeating patterns and non-repeating sequences in a set by identifying the part that repeats.
- Copy a repeating pattern (e.g., actions, sound, colour, size, shape, orientation) and describe the pattern.
- Extend a variety of repeating patterns to two more repetitions.
- Create a repeating pattern using manipulatives, musical instruments, or actions, and describe the pattern.
- Identify and describe a repeating pattern in the classroom, the school, and outdoors (e.g., in a familiar song, in a nursery rhyme).


## Kindergarten

| [C] | Communication | [PS] | Problem Solving |
| :--- | :--- | ---: | :--- |
| [CN] Connections | [R] | Reasoning |  |
| [ME] Mental Mathematics | $[\mathbf{T ]}$ | Technology |  |
| and Estimation | [V] | Visualization |  |

## Strand:

Shape and Space (Measurement)

## Specific LearningOutcomes <br> It is expected that students will:

General Learning Outcome:
Use direct or indirect measurement to solve problems.

## Achievement Indicators

The following set of indicators may be used to determine whether students have met the corresponding specific outcome.
K.SS.1. Use direct comparison to compare two objects based on a single attribute, such as length (height), mass (weight), and volume (capacity).
[C, CN, PS, R, V]

- Compare the length (height) of two objects, and explain the comparison using the words "shorter," "longer (taller)," or "almost the same."
- Compare the mass (weight) of two objects, and explain the comparison using the words "lighter,"" heavier," or "almost the same."
- Compare the volume (capacity) of two objects, and explain the comparison using the words "less," "more," "bigger," "smaller," or "almost the same."


## Kindergarten

| [C] Communication | [PS] | Problem Solving |
| :--- | ---: | :--- | :--- |
| [CN] Connections | [R] | Reasoning |
| [ME] Mental Mathematics | [T] | Technology |
| and Estimation | [V] | Visualization |


| Strand: <br> Shape and Space (3-D Objects and 2-D Shapes) | General Learning Outcome: <br> Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them. |
| :---: | :---: |
| Specific Learning Outcomes It is expected that students will: | Achievement Indicators <br> The following set of indicators may be used to determine whether students have met the corresponding specific outcome. |
| K.SS.2. Sort 3-D objects using a single attribute. $[C, C N, P S, R, V]$ | - Sort a set of familiar 3-D objects using a single attribute, such as size or shape, and explain <br> - the sorting rule. <br> - Determine the difference between two pre-sorted sets by explaining a sorting rule used to sort them. |
| K.SS.3. Build and describe 3-D objects. $[\mathrm{CN}, \mathrm{PS}, \mathrm{~V}]$ | - Create a representation of a 3-D object using materials such as modelling clay and building blocks, and compare the representation to the original 3-D object. <br> - Describe a 3-D object using words such as "big," "little," "round," "like a box," and "like a can." |

## Grade 1

| [C] | Communication | [PS] | Problem Solving |
| :--- | :--- | ---: | :--- |
| [CN] Connections | [R] | Reasoning |  |
| [ME] Mental Mathematics | $[\mathbf{T}]$ | Technology |  |
| and Estimation | [V] | Visualization |  |

## Strand: <br> Number

Specific Learning Outcomes
It is expected that students will:

## General Learning Outcome:

Develop number sense.

|  | Strand: Number | General Learning Outcome: Develop number sense. |
| :---: | :---: | :---: |
|  | Specific Learning Outcomes It is expected that students will: | Achievement Indicators <br> The following set of indicators may be used to determine whether students have met the corresponding specific outcome. |
| 1.N.1. | Say the number sequence by <br> - 1s forward and backward between any two given numbers (0 to 100) <br> - 2 s to 30 , forward starting at 0 <br> - 5 s and 10 s to 100 , forward starting at 0 <br> [C, CN, ME, V] | - Recite forward by 1s the number sequence between two given numbers ( 0 to 100). <br> - Recite backward by 1s the number sequence between two given numbers. <br> - Record a numeral ( 0 to 100 ) symbolically when it is presented orally. <br> - Read a numeral (0 to 100 ) when it is presented symbolically. <br> - Skip-count by 2 s to 30 starting at 0 . <br> - Skip-count by 5 s to 100 starting at 0 . <br> - Skip-count by 10 s to 100 starting at 0 . <br> - Identify and correct errors and omissions in a number sequence. |
| 1.N.2. | Subitize and name familiar arrangements of 1 to 10 dots (or objects). <br> [C, CN, ME, V] | - Look briefly at a familiar dice arrangement of 1 to 6 dots, and identify the number represented without counting. <br> - Look briefly at a familiar ten-frame arrangement of 1 to 10 dots (or objects), and identify the number represented without counting. <br> - Look briefly at a finger arrangement, and identify how many fingers there are without counting. <br> - Identify the number represented by an arrangement of dots (or objects) on a ten frame, and describe the number's relationship to 5 and to 10 . |
| 1.N.3. | Demonstrate an understanding of counting by <br> - using the counting-on strategy <br> - using parts or equal groups to count sets [C, CN, ME, R, V] | (It is intended that the sets be limited to less than 30 objects and that students count on from multiples of 2,5 , and 10 respectively.) <br> - Determine the total number of objects in a set, starting from a known quantity and counting on by 1 s . <br> - Count number of objects in a set using groups of $2 \mathrm{~s}, 5 \mathrm{~s}$, or 10 s . <br> - Count the total number of objects in a set, starting from a known quantity and counting on by using groups of $2 \mathrm{~s}, 5 \mathrm{~s}$, or 10 s . |

