General and Specific Learning Outcomes with Achievement Indicators by Grade

[C] Communication
 [PS] Problem Solving
 [R] Reasoning
 [ME] Mental Mathematics and Estimation
 [V] Visualization

	Kindergarten Strand: Number	General Learning Outcome: Develop number sense.
	Specific Learning Outcomes <i>It is expected that students will:</i>	Achievement Indicators 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 1s, starting anywhere from 1 to 30 and from 10 to 1. [C, CN, V]	 Recite the number sequence from 1 to 30 and from 10 to 1. Name the number that comes after a given number, 1 to 9. Name the number that comes before a given number, 2 to 10. 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). [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. Identify the number represented by a given dot arrangement on a five frame, and describe the number's relationship to 5. 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. Name the number for a set of objects. Hold up the appropriate number of fingers for a given numeral. Match numerals with their pictorial representations.
K.N.4.	Represent and describe numbers 2 to 10 in two parts, concretely and pictorially. [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. Show a number as two parts using pictures, and name the number of objects in each part.

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

	Strand: Number	General Learning Outcome: 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]	 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.
K.N.6.	Compare quantities, 1 to 10, using one-to-one correspondence by ordering numbers representing different quantities [C, CN, V]	 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.

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

	Strand: Patterns and Relations (Patterns)	General Learning Outcome: Use patterns to describe the world and solve problems.
	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.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]	 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).

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

	Strand: Shape and Space (Measurement)	General Learning Outcome: Use direct or indirect measurement to solve problems.
	Specific LearningOutcomes 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.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 and Estimation		Technology Visualization

Kindergarten

	Strand: Shape and Space (3-D Objects and 2-D Shapes)	General Learning Outcome: Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.
	Specific Learning Outcomes <i>It is expected that students will:</i>	Achievement Indicators 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, CN, PS, R, V]	 Sort a set of familiar 3-D objects using a single attribute, such as size or shape, and explain the sorting rule. 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. [CN, PS, 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. Describe a 3-D object using words such as "big," "little," "round," "like a box," and "like a can."

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Grade 1

	Strand: Number	General Learning Outcome: 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.
1.N.1.	 Say the number sequence by 1s forward and backward between any two given numbers (0 to 100) 2s to 30, forward starting at 0 5s and 10s to 100, forward starting at 0 [C, CN, ME, V] 	 Recite forward by 1s the number sequence between two given numbers (0 to 100). Recite backward by 1s the number sequence between two given numbers. Record a numeral (0 to 100) symbolically when it is presented orally. Read a numeral (0 to 100) when it is presented symbolically. Skip-count by 2s to 30 starting at 0. Skip-count by 5s to 100 starting at 0. Skip-count by 10s to 100 starting at 0. 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). [C, CN, ME, V]	 Look briefly at a familiar dice arrangement of 1 to 6 dots, and identify the number represented without counting. Look briefly at a familiar ten-frame arrangement of 1 to 10 dots (or objects), and identify the number represented without counting. Look briefly at a finger arrangement, and identify how many fingers there are without counting. 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 using the counting-on strategyusing 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.) Determine the total number of objects in a set, starting from a known quantity and counting on by 1s. Count number of objects in a set using groups of 2s, 5s, or 10s. Count the total number of objects in a set, starting from a known quantity and counting on by using groups of 2s, 5s, or 10s.