

Kindergarten Benchmark Proficiencies

I. NUMBER SENSE

By the end of the Kindergarten, students will be able to...

	Degree of mastery: A= 75% or more of the students B=about half C=fewer than 25%	Q 1	Q 2	Q 3	Q 4
STI.1	know number order from 0 to 9, and from 10 to 100				
STI.2	see the pattern in numbers from 0 to 100 (be able to recognize that the number order repeats in a sequential pattern)				
STI.3	count by rote up to 30, forward				
STI.4	explore counting backwards				
STI.5	touch and count each item in the right order				
STI.6	count ordered and unordered objects in a set of 10 objects or less				
STI.7	recognize numerals 0 to 20 in a random order				
STI.8	construct number groups to 20 using concrete objects				
STI.9	understand and discuss the quantity represented by zero				
STI.10	do simple addition and subtraction using concrete objects e.g. join sets, separate sets, explain actions				
STI.11	begin mastery of simple addition and subtraction facts under ten through repetition				
STI.12	use ordinal numbers up to fifth				
STI.13	count forward by rote to 50				
STI.14	count backward by rote from 9 to 0				
STI.15	skip count by 2, 5, and 10				
STI.16	mentally add/subtract 1 or 2 to a number under 10				
STI.17	estimate if a number of objects in a set is more/less than the number of objects in another set				
STI.18	estimate number or sums of objects				
STI.19	recognize whether a given estimate is reasonable or not				
STI.20	the discovery and identification of parts of a whole, parts of a group and region, and equal parts				
STI.21	handle and identify pennies, nickels, and dimes				
STI.22	identify the value of a penny as one cent, a nickel as 5 cents, and a dime as 10 cents				
STI.23	play trading games showing equivalencies for pennies, nickels, and dimes				
STI.24	compare amounts of pennies, nickels and dimes as more/less/same amount (using real coins)				
STI.25	read the symbol for dollar and cent				

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II. ALGEBRA and FUNCTIONS

By the end of the Kindergarten, students will be able to...

	Degree of mastery: A= 75% or more of the students B=about half C=fewer than 25%	Q 1	Q 2	Q 3	Q 4
STII.1	sort and classify objects by color, weight, shape, length, and size				

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III. MEASUREMENT and GEOMETRY

By the end of the Kindergarten, students will be able to...

	Degree of mastery: A= 75% or more of the students B=about half C=fewer than 25%	Q 1	Q 2	Q 3	Q 4
STIII.1	identify simple geometric shapes: circles, squares, triangles, ovals, and diamonds, cubes, spheres, and cones				
STIII.2	discuss and describe the attributes of simple geometric shapes e.g. position, shape, size, roundness, number of corners				
STIII.3	describe the attributes of simple 3-dimensional objects e.g. using concrete objects: ball, box, can, cone				
STIII.4	recognize the similarities and differences among 3-dimensional figures				
STIII.5	sort 2- and 3-dimensional figures				
STIII.6	make squares, rectangles, and triangles				
STIII.7	order events based on time sequence: first through fifth				
STIII.8	order events using before/after, now/later, morning/afternoon/evening/night/ today, yesterday, tomorrow, next week, next year, lunch time, bed time, etc.				
STIII.9	tell which activity takes more/less time				
STIII.10	read time on a clock (analog and digital) to the hour				
STIII.11	recognize the sequence of time e.g. through use of the monthly calendar				
STIII.12	name the days of the week				
STIII.13	describe and compare objects as being big/bigger/small, smaller/tall/taller, short/shorter, thick/thin, heavy/light, long/short, full/empty, hot/cold (using concrete objects)				
STIII.14	measure length with non-standard units e.g. arm length, palm spread, pencil, etc				
STIII.15	explore the use of a balance scale e.g. how many blocks balance a book				
STIII.16	explore capacity by filling containers with objects of liquids				
STIII.17	estimate the measure (length, weight, capacity) of an object given a non-standards unit of reference				
STIII.18	estimate time for activities or events				
STIII.19	estimate if a given object is lighter/heavier, shorter/longer, than another given object				

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IV. STATISTICS, DATA ANALYSIS, and PROBABILITY

By the end of the Kindergarten, students will be able to...

	Degree of mastery: A= 75% or more of the students B=about half C=fewer than 25%	Q 1	Q 2	Q 3	Q 4
STIV.1	participate in the construction of concrete and pictorial graphs				
STIV.2	follow game rules using spinners				
STIV.3	predict what comes next				
STIV.4	participate in the construction of concrete and pictorial graphs				
STIV.5	collect, sort, describe, ask questions about objects by color, weight, shape, length, and size				
STIV.6	estimate the chance of an event happening e.g. certain, impossible, more likely, less likely				
STIV.7	identify simple patterns in real life				
STIV.8	copy and continue simple patterns from a picture or a model				
STIV.9	extend, and build simple patterns e.g. using pattern blocks, button collections, tiles, beads, etc.				
STIV.10	demonstrate the understanding of number patterns by skip counting by 2, 5, and 10				

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V. MATHEMATICAL REASONING

By the end of the Kindergarten, students will be able to...

	Degree of mastery: A= 75% or more of the students B=about half C=fewer than 25%	Q 1	Q 2	Q 3	Q 4
	appreciate problem situations that arise from school and other everyday life experiences, find and explain solutions by:				
STV.1	the use of manipulatives				
STV.2	the use of concrete models				
STV.3	completing a pictograph or table				
	experience the following strategies				
STV.4	acting out problems				
STV.5	guessing and checking				
STV.6	drawing a picture				
STV.7	sharing thinking				
STV.8	working with a partner				

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VI. NCTM STANDARD MATHEMATICAL CONNECTIONS

By the end of the Kindergarten, students will be able to...

	Degree of mastery: A= 75% or more of the students B=about half C=fewer than 25%	Q 1	Q 2	Q 3	Q 4
STVI.1	print numbers and math symbols				
STVI.2	print key math terms and expressions				
	students should be exposed to/experience:				
STVI.3	the discovery of mathematics in the real world				
STVI.4	the discovery and appreciation of the usefulness and beauty of mathematics				
STVI.5	playing in-door and out-door games involving mathematical concepts				
STVI.6	completing arts and craft projects involving patterns				
STVI.7	listening for rhythm, tempo, and patterns in music				
STVI.8	skipping count during physical education classes				
STVI.9	discovering and enjoy math in children literature				
STVI.10	making up “math” stories				

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VII . NCTM STANDARD MATHEMATICS AS COMMUNICATION

By the end of the Kindergarten, students will be able to...

	Degree of mastery: A= 75% or more of the students B=about half C=fewer than 25%	Q 1	Q 2	Q 3	Q 4
STVII.1	listen to and follow oral directions for math activities				
STVII.2	show ideas and explain strategies by drawing, using words, and numbers and by building with a variety of concrete materials, such as connecting cubes, pattern blocks, buttons, beads, color tiles, etc and by pasting paper representations of materials				
STVII.3	use the words for size and position: e.g. more/less, most/least, few/many, large/small, big/little, heavy/light, lighter, shorter, heavier, holds more, thick/thin, over/under, above/below, top/bottom, right/left/middle, beside/in front of/behind, first/second/third/etc				
STVII.4	use vocabulary of simple shapes, attributes, coins, and number words: square, circle, triangle, rectangle, diamond, oval round, flat, side, corner, penny, nickel, dime, quarter, dollar one/first, two/second				
STVII.5	restate a simple problem in own words				
STVII.6	show and explain or tell a friend what to do to solve the problem				
STVII.7	show and tell a friend how the problem was solved				