Grade 1 Benchmark Proficiencies

I. NUMBER SENSE

By the end of the Grade 1, 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	count out loud by ones, two's, (both even and odds) five's, ten's up to 100				
STI.2	count from an initial number forward up to 100				
STI.3	using a number line count from an initial number backward				
STI.4	identify and write numbers to 100 out of order				
STI.5	order two-digit numbers up to 100				
STI.6	use symbols and letters greater than, less than, or equal to (> < =) to describe the joining, separating, and comparing of groups of objects				
STI.7	identify the ones place and the tens place in two-digit numbers				
STI.8	combine two groups of objects up to 20, and write the correct addition equation				
STI.9	find equivalent forms of a number under 20 using concrete models (e.g. base 10 blocks) diagrams, number expressions e.g.7=3+4 or 7=2+2+2+1				
STI.10	understand increasing, put together, take away, etc. as addition and subtraction				
STI.11	handle, identify, and know value of pennies nickels, dimes, quarters, and dollars				
STI.12	use real coins, count the number of cents that match each coin for pennies, nickels, and dimes				
STI.13	compare amounts of money and combinations of money as more, less, the same				
STI.14	"buy" items, given an amount of money				
STI.15	read and write the symbol for cents and dollars				
STI.16	figure out and commit to memory all addition facts (sums up to 20) and related subtraction facts, with and without concrete objects, orally and in writing, and in problem solving				
STI.17	count all or counting on up to 100				
STI.18	identify numbers that are one more, one less, two more, two less, a double, a double plus or minus one, ten more than, ten less than				
STI.19	count objects by grouping in ones and tens				
STI.20	add up to three 1-digit numbers horizontally and vertically				
STI.21	add 1-digit and 2-digit numbers up to 100 - no regrouping				
STI.22	subtract a 2-digit number from a 2-digit number - no regrouping				
STI.23	estimate prior to counting , the number of concrete objects or pictures by two's, by five's, by ten's, or by using ordinal numbers				

I. NUMBER SENSE (continued)

By the end of the Grade 1, 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.24	compare two sets of objects to determine whether there are about the same number of items in each set when the objects are arranged randomly or in a familiar pattern				
STI.25	make a reasonable estimate for addition and subtraction statements under 20 for comparing larger and smaller				
STI.26	estimate the value of a given collection of coins up to $2				
STI.27	mentally count to determine a sum under 12				
STI.28	mentally count back to determine a difference under 12				
STI.29	identify fraction models as part of a group and as part of a whole				
STI.30	identify models divided into equal parts				
STI.31	orally identify fractional parts (halves, thirds, fourths) of whole objects or sets of objects				

II. ALGEBRA and FUNCTIONS

By the end of the Grade 1, 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	understand the meaning of the symbols +,-,=				
STII.2	relate problem situations and number sentences involving addition and subtraction				
STII.3	write and solve number sentences from problem situations, using addition and subtraction				

III. MEASUREMENT and GEOMETRY

By the end of the Grade 1, 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	use the calendar, discover the days of the week, the months and seasons of the year				
STIII.2	know the number of days in a week				
STIII.3	discuss and compare time for real life events e.g. use hourglass, egg timer, etc.				
STIII.4	identify the approximate or plausible time when events will occur, such as recess, lunch, bed time				
STIII.5	read time to the nearest half hour on analog and digital clocks and relate these to events e.g. before/after lunch, shorter or longer recess etc.				
STIII.6	compare and order more than two objects, by their size, weight, and length, etc.				
STIII.7	estimate and measure length, weight, volume of more than 2 objects, using non-standard units				
STIII.8	use a ruler to measure in inches and in centimeters				
STIII.9	use a balance scale to compare weights of objects				
STIII.10	name pound as a standard unit of weight				
STIII.11	estimate and measure capacity by filling containers with objects or liquids				
STIII.12	describe and compare real life objects, using temperature, e.g. cold, cool, warm, hot, etc.				
STIII.13	understand and use mathematical language associated with position e.g. over, under, above, below, top, bottom, right, left, middle, beside, in front of, behind				
STIII.14	give and follow directions using language associated with position and location				
STIII.15	identify, describe, and compare describe the attributes of simple 2-dimensional geometric shapes: square, triangle, rectangle, circle, including the faces of three dimensional objects				
STIII.16	count the number of sides and corners of simple geometric figures				
STIII.17	copy simple geometric figures				
STIII.18	recognize a line of symmetry in real life and in representations				
STIII.19	identify the plane figures that have the same shape and same size, and that have the same shape but are a different size				
STIII.20	describe and classify 3-dimensional figures e.g. ball, box, can, pyramid, cone				
STIII.21	recognize similarities and differences among 3-dimensional figures by common attributes such as color, shape, size, number of corners				

IV. STATISTICS, DATA ANALYSIS, and PROBABILITY

By the end of the Grade 1, 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	represent, copy, and continue patterns of up to five objects or symbols				
STIV.2	sort objects on multiple attributes and justify the similarities and differences in these objects				
STIV.3	identify and extend, and explain how to get missing elements of repeating patterns and sequences of numbers				
STIV.4	use concrete materials to organize small amounts of data				
STIV.5	fill in a symbolic graph based on a concrete or pictorial graph				
STIV.6	read, interpret, and compare data, using pictures, picture graphs, bar graphs, and tally charts				
STIV.7	predict which is larger, smaller, largest, smallest, next, most often, least often, what comes next or what will be the most likely draw				
STIV.8	identify events that are sure to happen, events that are sure not to happen, and those we cannot be sure about				

V. MATHEMATICAL REASONING

By the end of the Grade 1, 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**
	reason, set up, and solve problems relating to the California Content Standards for mathematics, using he following skills and strategies				
STV.1	use daily experiences to apply problem solving skills;				
STV.2	work cooperatively in groups or with a partner				
STV.3	note connections between one mathematics problem and another				
STV.4	use daily experiences to apply problem solving skills				
STV.5	work cooperatively with a group or a partner				
STV.6	after calculation, explore using a number sentence to represent a procedure and then justify the procedure used				
STV.7	test the reasonableness of the answer				
STV.8	listen carefully to the problem and retell in own words				
STV.9	use manipulatives to represent data, find solutions, and model problems				
STV.10	act the problem out or role play to find a solution				
STV.11	guess and check				
STV.12	make a list				
STV.13	look for a pattern to predict a solution				
STV.14	complete a pictograph, a bar graph, or a table to sort information and solve problems				
STV.15	read and use data from a simple pictograph, bar graph, or table, or other representations				
STV.16	draw a picture to illustrate the problem solving approach				
STV.17	explore situations for which an estimate is appropriate				

VI. NCTM STANDARD
MATHEMATICAL CONNECTIONS

By the end of the Grade 1, 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	discover and appreciate the usefulness and beauty of mathematics in the real world				
STVI.2	play in-door and out-door games involving mathematical concepts				
STVI.3	complete arts and craft projects involving patterns				
STVI.4	skip count during physical education classes				
STVI.5	listen for rhythm, tempo, and patterns in music				
STVI.6	discover and enjoy math in children's literature				
STVI.7	make up "math" stories				
STVI.8	practice printing numbers and math symbols				
STVI.9	practice spelling key math terms and expressions				
STVI.10	write numbers to one hundred in order				
STVI.11	note connections between one mathematics problem and another				
STVI.12	*Use technology: (*Not required by the 1998 State of California Content Standards but recommended by the NCTM Standards)				
STVI.13	explore using a calculator to find sums and differences under 100				
STVI.14	explore using a calculator to find up to 4 addends whose sum equals a given number				
STVI.15	explore using a calculator to skip count by 3's, 4,s, and 6's				
STVI.16	explore using a calculator to find the cost of selected items (in $ units)				
STVI.17	explore using a calculator to add or subtract a series of numbers using the equal key only once				
STVI.18	explore drawing a shape, using a computer program				
STVI.19	use a calculator to determine if estimates for addition and subtraction statements were reasonable				

VII . NCTM STANDARD
MATHEMATICS AS COMMUNICATION

By the end of the Grade 1, 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	understand 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	**understand and use mathematical language associated with:**				
STVII.4	size, position, time, distance, content, money: e.g.more/less, most/least, few/many, large/small, big/little, heavy/light, thick/thin, the least, the most, the greatest, most likely, least likely, less than,/more than, full/empty, half full/half empty, in all, now/later/earlier, next week/month/year, last week/month/year, before/after/never, far/close/near, etc.				
STVII.5	with ordinal numbers e.g. fifth from the tree, from your left, etc.				
STVII.6	previously learned math terms and expressions e.g.: family of facts, equal, unequal, shaded parts, pattern, tally chart, tokens, pegs, length, distance, coins, amount, value				
STVII.7	know the names of simple geometric shapes e.g. square, circle, triangle, diamond, oval				