C.C.M.A.C. – 1st Meeting – September 19, 2013

COMMON CORE MATHEMATICS ADVISORY COMMITTEE

Welcome, and Thank You!

You are a part of a very important group of experts. You are all being asked to help chart a course for the future of math in San Gabriel USD.

The Common Core represents both a challenge and an opportunity for us to lay out a successful course for San Gabriel's schools that will last for years to come.



CCMAC - GOALS

Elementary

Research and create new assessments that align with planned Common Core assessments

Secondary

Recommend a Secondary Math Pathway for the District

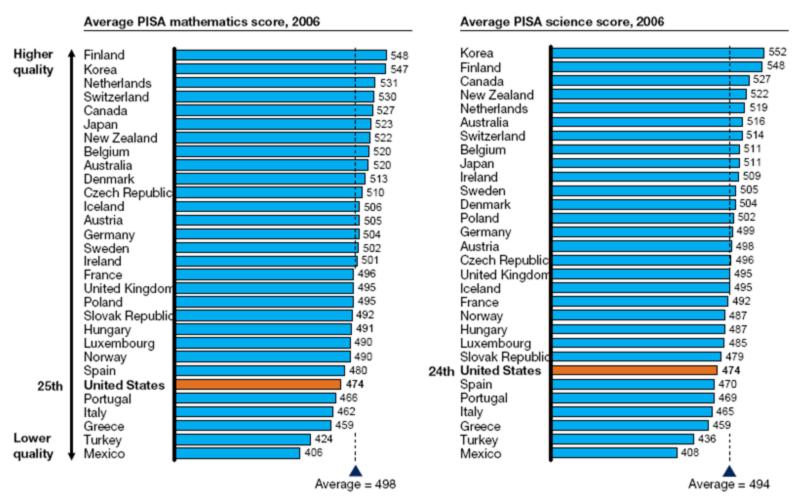
Identify Necessary Instructional Shifts

Identify Necessary Types of Technology Tools

Write a Common Core Math Transition Plan

After Five Years of NCLB

PISA rankings show United States trailing other OECD countries



Note: Results are for OECD countries; OECD partner countries not included. Differences may not be statistically significant. SOURCE: OECD

After Over 10 Years of NCLB



By MOTOKO RICH Published: December 11, 2012

U.S. Students Rank 32 in Math Proficiency, 17 in Reading, Study Says

By School Library Journal Archive Content on 🚟 August 23, 2011

By SLJ Staff, 8/23/2011



Our nation's graduating high school class of 2011 had a 32 percent proficiency rate in math and a 31 percent proficiency rate in reading, leaving many to question whether schools are adequately preparing students for the 21st century global economy, says a new report. U.S. students fall behind 31 countries in math proficiency and behind 16 countries in reading proficiency, according to the recent study, "Globally Challenged: Are U.S. Students Ready to Compete?" by Harvard's Program on Education

Policy and Governance.

	U.S. (11th)	*Not statistically	different from U.S.
10. Ireland*	Russia*	England*	U.S.
9. Taiwan*	England*	U.S.	England*
8. Croatia*	Finland*	Finland*	Hong Kong
7. Denmark*	Belgium	Israel*	Russia
6. U.S.	N. Ireland	Russia	Slovenia
5. N. Ireland*	Japan	Japan	Finland
4. Singapore	Taiwan	Hong Kong	Japan
3. Finland	Hong Kong	Taiwan	Korea
2. Russia	Korea	Singapore	Taiwan
 Hong Kong 	Singapore	Korea	Singapore
4TH GRADE READING	4TH GRADE MATH	8TH GRADE MATH	8TH GRADE SCIENCE

What do other countries do?

- Why do other countries consistently outperform the United States in these international measures?
- There are a wide variety of possibilities
 - Socioeconomic reasons
 - Teacher recruitment/compensation
 - Systemic educational differences
- It's likely not just one thing... but what can we do differently?

Topic		Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade
Whole number meaning	1	•	•	0	0			8
Whole number operations				•	0			
Measurement units	0				•		•	
Common fractions	•		0			0	•	
Equations and formulas			0	•	0	0	•	•
Data representation and analysis			0	0	0	0		0
2-D geometry: basics			0	0	0	0	•	•
Polygons and circles				0	0	0	•	•
Perimeter, area and volume				0	0	0	0	0
Rounding and significant figures				0	0			
Estimating computations				0	0	0		
Properties of whole number operations				0	0			
Estimating quantity and size				0	0			
Decimal fractions				0	•	0		
Relationship of common and decimal fractions				0	•	0		
Properties of common and decimal fractions					0	0		
Percentages					0	0	0.000	
Proportionality concepts					0	0	0	0
Proportionality problems					0	0	•	•
2-D coordinate geometry					0	0	0	0
Geometry: transformations					-22015	0	0	0
Negative numbers, integers and their properties						0	0	
Number theory							0	0
Exponents, roots and radicals							0	0
Exponents and orders of magnitude							0	0
Measurement estimation and errors							0	
Constructions w/ straightedge and compass							•	0
3-D geometry							0	•
Congruence and similarity								•
Rational numbers and their properties								0
Patterns, relations and functions								0
Slope and trigonometry								0
Number of additional topics intended, on average, by A+	214	6/7	E10	4/4	410	215	0140	3/7
countries to complete their curriculum at each grade level, 1	2/4	6/7	5/8	1/1	1/2	3/5	6/10	3//

A+ Countries

Whole number meaning	•	•	•	•	•	•	•	•
Whole number operations	•	•	•	•	•	•	•	•
Measurement units	•	•	•	•	•	•	•	•
Common fractions	•	•	•	•	•	•	•	•
Equations and formulas	•	•	•	•	•	•		•
Data representation and analysis	•	•	•	•	•	•	•	•
2-D geometry: basics	•	•	•	•	•	•	•	•
Polygons and circles	•	•	•	•	•	•	•	•
Perimeter, area and volume	•	•	•	•	•	•	•	•
Rounding and significant figures	•	•	•	•	•	•	•	•
Estimating computations	•	•	•	•	•	•	•	•
Properties of whole number operations	•	•	•	•	•	•	•	•
Estimating quantity and size	•	•	•	•	•	•	•	•
Decimal fractions	•	•	•	•	•	•	•	•
Relationship of common and decimal fractions	•	•	•	•	•	•	•	•
Properties of common and decimal fractions					•	•	•	•
Percentages					•	•	•	•
Proportionality concepts					•	•	•	•
Proportionality problems					•	•	•	•
2-D coordinate geometry	•	•	•	•	•	•	•	•
Geometry: transformations	•	•	•	•	•	•	•	•
Negative numbers, integers and their properties					•	•	•	•
Number theory	•	•	•	•	•	•	•	•
Exponents, roots and radicals					•	•	•	
Exponents and orders of magnitude	•	•	•	•	•	•	•	•
Measurement estimation and errors	•	•	•	•	•	•	•	•
Constructions w/ straightedge/ruler and compass	•	•	•	•	•	•	•	•
3-D geometry	•	•	•	•	•	•	•	
Congruence and similarity	•	•	•	•	•	•	•	•
Rational numbers and their properties					•	•	•	•
Patterns, relations and functions	•	•	•	•	•	•	•	•
Slope and trigonometry					•	•	•	•
Number of additional topics intended by the expert	0	0	1	1	2	3	5	7

standards to complete the US mathematics curriculum

at each grade level.

Topic

Grade Grade Grade Grade Grade Grade Grade

United States

The Common Core Response

- Create standards that are
 - Coherent
 - Focused
 - Clear and Specific
 - The same goals for all US students
- Identify key ideas, understandings, and skills
- Emphasize deep learning of these concepts

1999 Standards vs. Common Core

1999 | CC

1999 | CC

		Kinde	rgarten		
Strand Strand	CA Math Standard	Domain	Common Core Standard (CCS)	Alignment	Comment: in reference to CCS
Number Sence	CA Math Standard 1.0 Students understand the relationship		E.C.: Know number name: and	Yes	
1.0 Number Segue	1.0 Student understant the reinforcing between numbers and quantities (i.e., that a set of objects has the same number of objects in different unastons reguedless of its position or arrangement).	Counting and Cardinality	the counting sequence.	16	
	1.1 Compare two or more sets of objects (up to mu objects its said group) and sidentify which set is equal to, more than, or less than the other.	Counting and Cardinality	A.C.C. Course on sail the number of objects. Congress numbers. (Clenter Streeneed) K.C.C.S. Hondry whether the number of objects on any pray in greater than, lens than, or equal to the number of objects on numbers of open pc, p. you may numbers and counting studeges. K.C.C.S. Compass two numbers between 1 and 10 pre-existed as	Yes	*Note: Include groups up to ten objects.
	1.2 Count, recognize, represent, name, and order a number of obsects (up to 30).	Counting and Cardinality	written manerals. K.CC.1: Count to 100 by ones and by tens.	Partial	CCS has students count to 30 and by new and tune, but represent
	and over a manner of orgents sup to Juj.	Caratally	E.CC.2: Count forward beginning from a green trumber within the known requence (instead of having to begin at 1). E.CC.3: Write numbers from 0		oy one; and work, our represent and write numbers to 20 meteod of 30 CCA). CCS has students compare two numbers (overtimes) but does not numbers (overtimes) but does not numbers ordering numbers.
			20. Represent a number of objects with written numeral 0 - 20 (with 0 representing a count of no objects). E. CC.5: Count to number "how many" questions about as many.		
			as 20 things arranged in a line, a		
Straud	CA Mith Steadard	Domain	nectangular array, or a circle, or as many as 10 things in a scattered configuration, given a number from 1-20, rount out that many		Comments in reference to CCS
	1.3 Know that the larger numbers describe sets with more objects in them than the unsaller numbers have.	Counting and Cardinality	objects K.C.C.4: Understand the selectionship between numbers and quantities; connect counting to cardinality.	Yes	
			R.CC.4s: When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.		
			K CC 4b: Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their anangement or the order in which they were counted.		
			K.CC.4c: Understand that each inccessive number name refers to a quantity that it one larger. K.CC.6: Identify whether the		
			number of objects in one group is greater than, less than, or equal to the number of objects in mesther group, e.g., by using matching and counting strategies.*		
2.0 Number Seane	Students understand and describe simple additions and subtractions.	Operations and Algebraic Thinking	K.OA: (Cluster Statement) Understand addition as putting together and adding to, and understand robits ofton a taking spart and taking from a	Yes	
Strand	CA Math Steadard 2.1 Use concerts objects to determine the	Domain Operation and	Common Core Standard (CCS) E.O.A.1: Represent addition and subtraction with objects, fingers,	Alignment	Comments in reference to CCS
	CA Mith bleadard 2.1 Use consiste objects to detention the amover to addition and subtraction problems (for two smallers that are each less than 10).	Operations and Algebraic Thinking	(e.g., claps), setting out intustions, verbal explanations, expressions or equations.		datash, but should shaw the mathematics in the problem.
			K.OA.2: Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.		_
3.0 Number Seme	3.0 Seadests we extinution strategies in competition and problem solving that survolve smallers that use the ones and term places.			No	CCS does not mention estimation of quantities except in the Mathematical Position standards. Estimation is then described so "make conjectures about the form and meaning of the colution and meaning of the colution with the possible except by sixtegically using estimation and other mathematical knowledge."
	3.1 Recognize when an estimate in rescounts in			No	CCS does not mention estimation of quantities except in the Mathematical Practice transduck. Estimation is then described as "make conjectures about the form and meaning of the volvious sol detect possible extractly introduced to the state of the conjecture of the conjecture and the same of the volvious sold detect possible extractly introduced to the same and other mathematical knowledge."
Strond Algebra and Tonotions	CA Math Standard				
Functions 1.0 Algebra and Functions	1.0 Students sort and classify objects.	Data	K.MD: Describe and compare measurable attributes	Yes	
1 day and	1.1 Heatify, sort, and classify objects by attribute and identify objects that do not belong to a particular group (e.g., all these bolls are green, those are red).	Measurement and Data	measurable attributes. K.3D.3. Classify objects into- given categories; count the numbers of object in each category- and set the categories by count*.	Yes	*Note: Limit category counts to be less than or equal to 10.

Strand	CA Math Standard	Domain	Common Core Standard (CCS)	Allienment	Community in reference to CCS
Strand Measurement and Geometry	CAMath Steadard				
I.O Measurement and Geometry	1.0 Students understand the concept of time and units to measure it; they understand that objects have properties, such as length, weight, and capacity, and that comparisons may be made by seferring to those properties.	Measurement and Data	E.MD: Describe and compare maximable attaibute. Classify objects into given cotegories; count the numbers of objects in each cotegory and set the categories by count. (Charter Statements)	Partial	1MD (Cluster statement) Tell and write time.
	1.1 Compare the length, weight, and capacity of objects by making direct companions with reference objects (e.g., note which object is shorter, lengue, taller, lighter, heavier, or holds more).	Meaningement and Date	K.MD.1: Describe measurable attributes of objects, such as length or weight. Describe actual teachers of objects of the control teachers of a single object. K.MD.2: Directly compare two objects with a measurable attribute in common, to see which object has "more offers off the attribute, and describe the difference."	Yes	
	1.2 Demonstrate an understanding of concepts of time (e.g., morning, affamous, evening, today, yesterday, tomorow, week, year) and tools that maxima time (e.g., clock, calendar).			Na	1 MD 3: Tell and write time in hours and half-hours using scales and digital clocks.
	1.3 Name the days of the week.			No	
	1.4 Identify the time (to the nearest hour) of everyday events (e.g., lauch time is 12 o'clock; bedtime is 8 o'clock at night).			No	1 MD 3: Tell and write time in hours and half-hours using malog and digital clocks:
2.0 Measurement and Geometry	2.0 Students identify common objects in their surviscement and describe the prometric feature:	Geometry	K.G. Identify and decoube thapes (squares, circles, triangle, rectuggle, hexagons, cubes, cones cylinders, and opheres). (Cluster Statement)	Yes	
Strand	CA Mark Standard	Domnin	Common Core Standard (CCS)	Alimment	Comment: in reference to CCS
	2.1 Identify and describe common geometric objects (e.g., curcle, triangle, square, rectangle, cube, sphere, cone).	Geometry	E.G.2. Correctly muse thapen regardless of their orientation or overall size.	Yes	
	2.2 Compare fassiliar plane and solid objects by common attributes (e.g., publics, labor, size, reachers, number of creater)	Consulty	K.G.2 Cornectly mass shapes regardless of their constitution or evental mas. K.G.4 Analyses and compare two-and these dissensional shapes, an different mice, and constitution, using unformal language to distort the maintaine, difference, parts (e.g., number of tubes and vertices) "consers") and other attribute (e.g., having sides of equal languagh).	Yes	
Strand Statistics, Data Analysis, and Probability	CA Math Standard				
1.0 Statutes, Data Analysis, and Probability	10 Students collect information about objects and events in their environment.			No	1.MD: (Cluster Statement) Represent and interpret data.
	 Pore information questions; cellect dats; and record the results using objects, pictures, and picture graphs. 			No	1.httl 4: Organise, represent, as interpret data with up to three categories; aid and assower questions about the total number of data points, how usary in each category, and how many more or less see in one category than in another.
	12 Identify, describe, and extend simple patterns (such as circles or mangles) by referring to their shapes, sizes, or colors.				CCS does not mention patterns except in the Mothematical Practice Standards, "mathematically proficient students look closely to discern a pattern or structure (in problem solving).

Kindergarten Math Standards

Standards Removed in Red, Partially Removed in Yellow

1999 | CC

1999 | CC

Strand Strand	CA Math Standard	Domnia	Common Core Standard (CCS)	Alignment	Comment: in reference to CCS
Number Sence	CA Math Standard				
1.0 Number Sence	1.0 Students understand the relationship between numbers and quantities (i.e., that a set of objects has the same number of objects in different untuations regardless	Counting and Cordinality	E.CC: Know number names and the counting sequence. E.CC: Count to tell the number of	Yes	
	of its position or arrangement).		objects: Compare mumbers. (Cluster Statement)		
	1.1 Computer two or more sets of objects (up to that objects in each group) and identify which set is equal to more flux, or less than the other.	Counting and Cardanisty	K.C. 6: Identify whether the number of objects in one group is greater than, less thom, or equal to the number of objects in marther group, e.g., by using matching and counting strategies. *	Yes	*Note: Include groups up to ten objects.
	Page 1		E.CC.7: Compare two numbers between 1 and 10 presented as written numerals. E.CC.1: Count to 100 by ones		
	Count, recognize, represent name, and order a number of objects (up to 30).	Counting and Cardinality	and by tem. E.CC.2: Count forward beginning from a given number within the	Partial	CCS has students count to 30 and by ones and twos, but represent and write numbers to 30 acrossed of 30(CA). CCS has students compare two
			known sequence (autend of having to begin at 1).		manbers (written) but does not mention ordering manbers.
			K.CC.3: Write numbers from 0— 20. Represent a number of objects with written numeral 0—20 (with 0 separating a count of no objects).		
			E.CC.5: Count to answer 'how many'?' questions about as many as 20 things arranged in a line, a		
Strand	CA Math Steadard	Domain	Common Core Standard (CCS)	Aligament	Comments in reference to CCS
			nectoagular array, or a circle, or as many as 10 thangs as a scattered configuration, given a number from 1-20, count out that many obserts.		
	1.3 Know that the larger numbers describe sets with more objects in them than the smaller numbers have.	Counting and Cartitulity	K.CC 4: Understand the relationship between numbers and quantities; connect counting to cardinality.	Yes	
			K.CC.4s: When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.		
			K.CC-8b: Understand that the last number name and tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.		
			K.CC.4c: Understand that each inccentive number name refers to a quantity that is one larger.		
			K.CC.6: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in marther group, e.g., by using matching and counting strategies."		
2.0 Number Secoe	2.0 Students understand and describe simple additions and subtractions.	Operations and Algebraic Thinking	K.O.A: (Cluster Statement) Understand addition as putting together and adding to, and understand volutaction as taking apart and taking from.	Yes	
Strand	CA Math Steadard	Domain	C	Alignment	Comments in reference to CCS *Note: Drawings need not show
	2.1 Use concrete objects to determine the answers to addition and submaction problems (for two numbers that are each less than 10).	Operations and Algebrasic Thinking	subtraction with objects, fingers, mental images, drawings*, counts (e.g., clips), acting our intuitions, verbal explanations, exprections or equations.	Yes	*Note: Drawings need not show details, but should show the numbersatics in the problem.
			K.O.A.2: Solve addition and subtraction word problems, and add and saltract within 10, e.g., by using objects of armings to represent the problem.		
3.0 Number Sense	3.0 Students we estimation strategies in competition and problems solving that involve smallers that use the ones and term places.			No	CCS does not mention estimation of quantities except in the Mathematach Position translated. Estimation is then described as "make conjectures about the form and meaning of the solution and detect possible extent by stategorally using estimation and other mathematach knowledge."
	3.1 Recognize when an estimate in reaconable.			No	CCS does not mention estimation of quantities except in the Mathematical Practice studeds. Estimation is then described as "make conjectures about the form and meaning of the solution and detect possible extent by studegically using entirations and chemical extensions of the mathematical knowledge."
Strand					annual and ready

Strand	CA Math Standard	Domain	Common Core Standard (CCS)	Manuel	Comments in columns to CCS
Strand Measurement and Geometry	CA Math Steadard	District	Common Core Schuszer (CCS)	Augunear	Comment in Petersica in CCS
.0 Measurement and Geometry	1.0 Students understand the concept of time and units to measure it; they understand that objects have properties, such as length, weight, and especity, and that companyons may be made by referring to those properties.	Measurement and Data	manurable attributes. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Cluster Statements)	Partial	1MD (Cleater statement) Tell and write time
	1.1 Compute the length, weight and capacity of object by making direct companions with reflection objects (e.g., note which object is cluster, longer, taller, lighbur, heavier, or holds more).	Meanmensent and Data	E.M.D.1: Describe massurable studiestes of objects, ruch as length or weight. Describe overall nanouable attained of a single object. E.M.D.2: Directly compare two objects with a measurable attained in common, to see which object has "more offers off the attribute, and describe the difference.	Yes	
	1.2 Demonstrate an understanding of concepts of time (e.g., meeting, affamoon, evening, today, yesterday, tomarous, week, year) and tools that maxima time (e.g., clock, calenday).			Na	1 MD 3: Tell and write time in hour; and half-hour; using analog and digital clocks.
	1.3 Name the days of the week.			No	
	1.4 Identify the time (to the nearest hour) of everyday events (e.g., lanch time is 12 o'clock, bedtime is 8 o'clock at night).			No	1.MD 3: Tell and write time in bours and half-hours using malog and digital clocks:
D Measurement and Geometry	2.0 Students identify common objects in their survicement and describe the geometric feature.	Geometry	K.G. Identify and decoube thapes (squares, riscles, triangle, rectuggle, besuggons, cubes, cones cylinders, and opheres). (Cluster Somemen)	Yes	
Strand	CA Math Standard	Domnia	Common Core Standard (CCS)	Alienment	Comments in reference to CCS
	2.1 Identify and describe common geometric objects (e.g., curcle, triangle, square, rectangle, cube, sphere, cone).	Geometry	E.G.2 Consectly mane thapes regardless of their orientation or overall size.	Yes	
	2.2 Compare faseilar plane and solid object by common attribute (e.g., position, labor, size, resealare), number of creenes).	Geometry	E.G.2 Correctly mass shapes regardless of their extentation or curvail mas. E.G.4 Analyse and compare two-and three-dimensional shapes, an different mice, and constations, using unformal language to describe their multilation, difference, parts [e.g., number of tubes and vertices"/consert"] and other strobute [e.g., having order of equal language].	Yes	
Strand Statistics, Data Analysis, and Probability	CA Math Standard				
1.0 Statutes, Data Analysis, and Probability	10 Students collect information about objects and events in their environment.			No	1.MD: (Cluster Statement) Represent and interpret data.
	11 Pose information questions; cellect dats; and record the results using objects; pictures, and picture graphs.			266	1.htD.4: Organism, represent, and interpret data with up to there categories, with and answer questions about the total number of data points, how many in each category, and how many more or last use in one category than in another.
	12 Identify, describe, and extend simple patterns (such as circles or triangles) by referring to their shapes, sizes, or colors.				CCS does not mention pattern except in the Mothemstrial. Practice Standards, "mathematically prodicient students look closely to disceen a pattern or structure (in problem solving.)

	1999	l CC	1999	CC
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Strand	CA Math Standard	Domain	Common Core Standard (CCS)	Alignment	Comment: in reference to CC
Strand Number Sense	CA Math Standard				
1.0 Number Sense	Students understand the relationship between numbers and quantities (i.e., that a set of objects has the same number of objects in different subations regardless	Counting and Cordinality	K.CC: Know musber names and the counting sequence.	Yes	
	of its position or intageness).		K.CC: Count to tell the number of objects: Compare numbers. (Cluster Statement) K.CC:6: Identify whether the		
	1.1 Compare two or more sets of objects (up to tan objects in each group) and identify which set is equal to, more than, or Jeus than the other.	Counting and Curdinality	K.C.C.6: Identify whether the manber of objects in one group is greater than, ben thum, or equal to the number of objects in mother group, e.g., by using matching and counting strategae."	Yes	"Note: Include groups up to ten objects.
			E.CC.7: Compare two numbers between 1 and 10 presented as		
	1.2 Count, recognize, represent, name, and order a number of objects (up to 30).	Counting and Cardinality	written manerals. K.CC.1: Count to 100 by ones and by ten. K.CC.2: Count forward beginning from a given number within the known sequence (united of having to begin at 1).	Partial	CCS has students count to 30 m by ones and twos, but represent and write numbers to 20 inchest of 300CA). CCS has students compare two manufacts (writing) but does no mention ordering manufers.
			K.CC.3: Write number: from 0- 20. Represent a number of objects with written numeral 0-20 (with 0 representing a count of no objects).		
			E.CC.5: Count to answer "how many?" questions about as many as 20 things arranged in a line, a		
Strand	CA Math Steadard	Domain.	Common Core Standard (CCS) rectangular array, or a circle, or so many as 10 things in a scattered configuration; given a number from 1-20, count out that many	Aligament	Comments in reference to Co
	1.3 Know that the larger numbers describe sets with more objects in them than the smaller numbers have.	Counting and Cardinality	objects K.C.4. Understand the relationship between numbers and quantities; connect counting to cardinality.	Yes	
			K.CC.4s: When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.		
			K.CC-4b: Understand that the last number same said tells the number of objects counted. The number of objects as the same regardless of their arrangement or the order in which they were counted.		
			K.CC.4c: Understand that each ruccestive number name refers to a quantity that it one larger.		
			K.CC.6: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in marther group, e.g., by using matching and counting strategies.*		
2.0 Number Sense	2.0 Students understand and decembe simple additions and subtractions.	Operations and Algebraic Thinking	K.OA: (Charter Statement) Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	Yes	
Straud	CA Mark Steadard 2.1 Use concerns objects to determine the amover to addition and obtraction problems (for two numbers that are each less than 10).	Domain Operations and Algebraic Thinking	Creamon Core Standard (CCS) K.O.A.1: Represent addition and subtraction with objects, fangers, mental images, drawings*, sounds (e.g., claps), acting out intusteen, webal explaintisms, expressions or equations.	Alignment Yes	Comments in reference to C *State: Discount used not the detail, but should show the mothematics in the problem.
			K.O.A.2: Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or derivings to represent the problem.		
3.0 Number Sense					CCS does not mention estimate of quantities except in the Mathematical Process standard Estimation is then denotibed as "make conjectures about the for and menting of the solution and detect prosuble excess by strategically using autimation a
					strategically using estimators, other mathematical knowledge CCS does not mention estimated quantities succept in the Mathematical Practice standard Estimation is then described in "make conjectures about the for and menning of the solution so detect possible extract by strategically using estimation, other other mathematical knowledge,
Strand Algebra and Functions 1.0 Algebra and	CA Math Standard				
1.0 Algebra and Functions	1.0 Students nort and classify objects. 1.1 Identify, nort, and classify objects by	Measurement and Data Measurement and	K.MD: Describe and compare measurable attributes. K.MD.3: Classify objects into	Yes	*Note: Limit category count: t
	attribute and identify objects that do not belong to a particular group (e.g., all these balls are green, those are red).	Data	given categories; count the numbers of object in each category and sort the categories by count*.	250	be less than or equal to 10.

Strand	CA Math Standard	Domain	Common Core Standard (CCS)	Alignment	Comments in reference to CCS
Strand Measurement and Geometry	CA Math Studend				
0 Meanwennest and Geometry	1.0 Students understand the concept of time and units to measure it; they understand that objects have properties, such as length, weight, and capacity, and that comparisons may be made by referring to those properties.	Measurement and Data	E.MD: Describe and compare measurable attributes. Classify objects into gives categories; count the numbers of objects in each category and out the categories by count. (Chater	Partial	1.MD. (Charter statement) Tell and write time.
	1.1 Compare the length, weight, and expectly of objects by making direct comparisons with reference objects (e.g., note which object is shorter, longer, taller, lighter, heavier, or holds more).	Measurement and Date	Scotements E.MD.1: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	Yes	
			E.MD.2: Directly compare two objects with a measurable attribute in common, to see which object has "more offers off the attribute, and describe the difference.		
			***************************************	Na	1 MD 3: Tell and write time in hour; and half-hour; using analog and digital clocks.
				Ne	
				No	1 MD 3: Tell and write time in hour; and half-hour; using analog and digital clocks.
O Measurement and Geometry	2.0 Students identify common objects in their necessaries and describe the prometric features.	Geography	K.G. Identify and decorbe thapes (squares, circles, triangle, rectugile, besugons, cubes, cones cylinders, and spheres). (Cluster Scarement)	Yes	
Strand	CA Math Stranford	Domain	Common Core Standard (CCS)	Alignment	Comment: in reference to CCS
	2.1 Identify and describe common prometric objects (e.g., curcle, triangle, square, rectangle, cube, sphere, cone).	Geometry	E.G.2 Correctly more shapes regardless of their orientation or overall size.	Yes	
	2.2 Compare families plans and solid objects by common attributes (e.g., position, thape, size, roundness, number of corners).	Geometry	K.G.2: Correctly mans shapes regardless of their estentiation or overall size. K.G.4: Analyze and compare two-	Yes	
			and three-dissensional slarpes, in different times and orientation, using suffernial language to describe their similarities, difference, partic (e.g., number of sides and vertices" corners") and other articlosis (e.g., having sides of equal length).		
Strand Statistics, Data Analysis, and Probability	CA Math Standard		or edges services		
1.0 Statutes, Data Analysis, and Probability				No	1.MD: (Cluster Statement) Represent and unterpret data.
				No	1.1(D.4: Organise, represent, as interpret data with up to face categories; aid and assower questions about the total number of data points, how many in each category, and how many more or last see in one category than in another.
					CCS does not mention patterns except in the Mathematical Practice Standards; "mathematically proficient students look closely to discens a pattern or structure (in problem solving.)

1999 Standards vs. Common Core

Analy	sis of California Mathen	<i>atics</i> stan	dards to Common Co	ore stand	ards-Grade 1						
Strand	CA Math Standard		Common Core Standard (CCS)			Strand	CA Math Stundard	Domain	Common Core Standard (CCS)	Alignment	Comment: in reference to C
Number Sense 1.0 Number Sense	CA Mark Steadard 1.0 Student: understand and use numbers	Number and	1.NBT: Extend the counting	Yes							other nurbenutical knowledge other nurbenutical knowledge
7807 000000000000	up to 100. 1.1 Count, read, and write whole number: to 100.	Operations in Base Ten Number and	sequence. (Cluster Statement) 1.NRT 1: Count to 120, stations at	Yes		Strand Algebra and Function 1.0 Algebra and	CA Math Standard				
		Operations in Base Ten	1.NBT.1: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a watten numeral.			1.0 Algebra and Functions	1.0 Students use number sentences with operational symbols and expressions to solve problems.		1.OA: Represent and solve problems involving addition and subtraction. (Cluster Statement)	Yes	
	1.2 Compare and order whole numbers to 100 by using the symbols for less than, equal to, or greater than (<, =, >).	Number and Operations in Bese Ten	1.NBT.3: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and =.	Yes			Write and solve number sentences from problem situation; that express relationships involving addition and subtraction.		subtraction. (Cluster Stotement) 1.0A.1: Use additions end unbraction within 20 to solve word problems involving riteration of odding to, inhantene of odding to, inhantene together, taking spart, and comparing, with unbrowns in all positions, e.g., by using objects, drawings, and equitones with a symbol for the unknown number to required an experience of the problem.*	Tes	"Refers to table with common addition and subtraction situs (e.g., Add to and Take from w result unknown, change suskin start unknown, etc.).
	Represent equivalent flours of the same number through the use of physical models, thapman, and number expressions (to 20) (e.g., 8 may be represented as 4 + 4, 5 + 3, 2 + 2 + 2 + 2, 10 - 2, 11 - 3).	Operations and Algebraic Thinking	symbols: n_i and n_i . I could be a finite or n_i and n_i . I cold R Add and unbarst wirthin 20, descentivisting flusiony for addition and obligation for the contrast of the cold of the col				1.2 Understand the meaning of the symbols +, -, =.	Operations and Algebraic Thinking	1.0A.7: Understand the meaning of the equal tigst, and determine if	Yes	
			the season state of the season state of the season			\vdash	Create problem situations that might lead to given number sentences involving addition and subtraction.		equation: involving addition and subtraction are true or false.	No	
			and creating equivalent but easier or known runn (e.g., adding 6 = 7 by creating the known equivalent 6 = 6 + 1 = 12 = 1 = 15)			Strand Measurement and Geometry 1.0 Measurement	CA Math Standard				
	1.4 Count and group object in ones and tens (e.g., three groups of 10 and 4 equals 34, as 30 = 4).	Number and Operations in Base Ten	1.NBT 2: Understand that the two digits of a two-digit nazober represent amounts of tens and ones. Understand the following as	Yes		1.0 Mescurement and Geometry	1.0 Students use direct comparison and nonstandard units to describe the measurements of objects.	Measurement and Data	1 MD: Measure length: indirectly and by iterating length units. (Chater Statement)	Yes	
Strand	CA Math Standard	Domnia	one. Understand the following as special cases: Common Core Standard (CCS) a. 10 can be thought of as a bundle of ten ones-called a	Alignment	Comments in reference to CCS		1.1 Compare the length, weight, and volume of two or more objects by using direct comparison or a nonstandard unit.	Measurement and Data	I.MD.1: Order three objects by length, compare the lengths of two objects indirectly by using a third about	Partial	SMD 2: Measure and estimate liquid volumes and masses of objects using standard units of prains (g), kilograms (kg), and laters (l).* Add, subtract,
			1 70 - 1 - 1 - 10			Strand	CA Math Standard	Domain	Common Core Standard (CCS)	Alignment	Comment: in reference to C
			o. In missions (min. 1 to 1) to 19 are consequent of a hea and one, two, there, flour, flour, flour, its, sayus, eight, or nine ones. e. The numbers 10, 20, 30, 46, 55, 60, 70, 52, 90 ander to one, two, three, flour, flour, its, system, eight, or nine feath (and 0 ones).						Common Core Standard (CCS) LMD: Expects the longh of an object as which assales of longh teat, which is a subject as a which saulter of longh teat, by loying multiple copies of a sharise object the longth must used to mel, understand that the longth mustoment of an object is the number of same-size length more of the saulter of longth must be contained for the contained of the saulter of the longth must be object being monatered in granted by a whole number of longth usets write no page or more days.		lines (0, * Add, subract, Comment: in reference to C multiply, or devide to tolve on they would problems involving matters or volumes that we gis in the came units, e.g., by win drawings (such as a beaker wit measurement scale) to represe the problem.*
	1.5 Identify and know the value of com:		six, seven, eight, or nine tens (and 0 ones).	No	2.34D & Solve word problems				usets that span it with no gaps or overlaps. Limit to consext where the object being measured is assented by a whole number of		*Excludes compound units on and finding the prometric vols of a container
	and slave different continuations of coins that equal the same value.				diner, nickels, and pennier, tring dollar tigns and cents tign appropriately				length units with no gaps or averlage.		Excludes unshiplicative comparison problems (problem involving melions of "times as much", see glossary table deal with common multiplication.
2.0 Number Sence				Yes	CCS does not introduce money in first grade. The second grade standard does expect knowledge of value and then computation.	_	1.2 Tell time to the nearest half hour and relate time to events (e.g., before lafter,	Measurement and Data	1 MD.3: Tell and write time in hours and half-hours using analog	Yes	division situations.)
2.0 Number Sense	2.0 Students demonstrate the meaning of addition and subtraction and use these operations to solve problems.	Operations and Algebraic Thinking	problems involving addition and inhtraction. (Cluster Statement)	Tes Pumal		2.0 Measurement and Geometry	therterlonger). 2.0 Students identify common prometric figures, classify them by common	Geometry	and digital clocks. 1. G. Reason with shapes and their attributes. (Cluster Statement).	Yes	
	2.0 Students demonstrate the meaning of addition and subtraction and use these operations to solve problems. 2.1 Know the addition facts (sums to 30) and the convergenting subtraction facts and committee to meaning.	Operation: and Algebraic Thinking	I.O.A. Expenses and solve problems involving addition and subtraction. (Charles Statement) 1.O.A.6: Add and subtract within 20, desecontraing flowers within 10. Use transgers such as counting our making time, e.g., 8 of 6 5 * 2 + 4 = 10 - 4 = 14), decomposing 8	Partial	2 OA 2: Finently add and subtract within 20 using mental strategies.* By and of Grade 2. know from memory all sums of two one-digit numbers.		secule must be events (e.g., betters often, hetersellongers) common general 2.0 Students identify common general figures, classify them by common attributes, and describe their relative positions or that houstons in upon. 2.1 Henrify, describe, and compare thougher, rectangles, opurars, and curcles, including the floors of three-classifications.			No	E.G.4: Analyze and compare two- and three-dimensional shapes, in different sizes and
			= 10 = 4 = 14), decomposing a mmber landing to a ten (a.g., 13 = 4 = 13 - 3 - 1 = 10 - 1 = 9); using the relationship between addition and substaction (a.g., knowing that 5 + 4 = 12, one know 12 - 8 = 4); and creating equivalent but easier or known stans (a.g., adding 6 = 7				sojects.	2011			B. G.* Analyze and compute rave—and three-dimensional shapes, in diffuser time and orientations, using informal language to describe their smallestnes, differences, parti- (e.g., number of sides and vertices? "conners") and other stribitures (e.g. having sides o equal length).
Strand	CA Math Standard	Domain		Alignment	Comments in reference to CCS		2.2 Classify familiar plane and solid objects by common attributes, such as color, position, shape, size, roundness, or	Geometry	 Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus 	Yes	10000000
	2.2 Use the inverse relationship between addition and subtraction to solve problems.	Operations and Abrelease	Common Core Standard (CCS) by creating the known equivalent 6+6+1=12+1=13). 1.OA.4: Understand subtraction as an unknown-added problem.	Yes		Strand	2.2 Classify familiar plane and solid objects by consume attributes, such as color, positions, shape, size, resundants, or number of contars, and explains which attributes are being used for classification. CA Math Standard	Domain	1.G.1: Dottinguish between defining attributes (e.g., triangles are closed and three-tided) versus men-defailing attributes (e.g., color, orientation, overall intel), build and Common Core Steadard (CCS) draw shapes to possess defining	Alignment	Comments in reference to C
	2.3 Identify one more than, one less than, 10 more than, and 10 less than a given	Algebraic Thinking Number and	LNBT 5: Given a two-digit	Yes			2.5 Give and follow directions about		attributes.	No	
	2.4 Count by 21, 51, and 101 to 100.	Operations in Base Ten Counting and Cardinality	INST 5: Given a two-digit massless, mentally find 10 more or 10 less that the number, without having to count: explain the resonance road. 1.0A.5: Relate counting to address and nobrascines (e.g., by counting on 2 to add 2).	Partial	K.CC.1: Count to 100 by ones		2.4 Arrange and describe objects in spare by promining, position, and direction (e.g., near, fix, below, above, up, down, behind, in front of, next to, left or right of).			No	K.G.1: Describe objects in the environment using somes of shapes and describe the relative positions of these objects usin terms ruch as above, below, beside, in from of, belond, and
		Operations and Algebraic Thinking	counting on 2 to add 2).		2.NBT-2: Count within 1000; by 51, 101, and 1001.	Strand Statistics Data	CA Math Standard				bezide, in front of behind, and next to
	2.5 Show the menting of addition (putting together, increasing) and subtraction (biking away, comparing, finding the difference).	Linking		No	K.OA: (Charter Statement) Understand addition as puring together and adding to, and understand subtraction as taking	Analysis, and Probability	3040/07/1 2050/01/2/10/2/1			Yes	
					together and adding to, and understand subtraction as taking apart and taking from	Strand Statistics, Data Analysis, and Probability 1.0 Statistics, Data Analysis, and Puolutelity	1.0 Students organize, represent, and compare data by category on sample graphs and charts. 1.1 Sort objects and data by common.	Measurement and Data	1 MD: Represent and interpret data (Claster Statement).	Yes No	E34D.3: Classify objects sate
	2.6 Solve addition and subtraction problems with one- and two-digit numbers (e.g., 5 = 58 =).	Number and Operations in Base Ten	1.NBT.4. Add within 100, including adding a two-digit mumber, and adding a two-digit number and a multiple of 10, using	Yes			attributes and describe the categories.				gives categories; count the numbers of objects in each category and nort the categorie by count.
			LINETA Add within 100, michiga should be a two-dige mambe, and adding a two-dige mambe, and antiple of 10, miniple of 10, mini				 Expressed and compare data (e.g., largest, smallest, most often, least often) by using potures, but graphs, tally charts, and potuse graphs. 	Measurement and Data	13/ID-4: Organize, represent, and interpret data with up to three congoons; salt and answer questions about the text insulter of data points, how many in each company, and how many more or less are in one category than in another.	Yes	
	CA Math Standard	Domain				2.0 Statistics, Data Analysis, and Probability	 Students sort objects and create and describe potterns by manbers, shapes, sizes, shythms, or colors. 			No	CCS mentions patterns in the Mathematical Practice Standa "mathematically posticient students look closely to discen
Strand	UN ALRES PORMULES	Domine	Common Core Standard (CCS) 1/88T.6. Sphracet makingles of 10 m the range 10-90 from maintake of 10 in the range 10-90 (positive or zero difference), using concrete models or deservings and shringles operations, raide of the substructure operations, raide of the substructure, selated the structure ye to a visite method and explain the reasoning weed.	Augument	Comments in reference to CCS	Strand	CA Math Standard 2.1 Describe, entend, and explain mays to get to a next element in sample squaring pattern (e.g., thythasis, numeric, color, and thape).	Domain	Common Core Standard (CCS)	Alignment No	nothers or structure." Comments in reference to C
			operation, and/or the relationship between addition and subtraction; related the strategy to a written			Strand Mathematical	CA Math Standard				
	2.7 Find the rum of three one-digit	Operations and	method and explain the reasoning used. 1 OA 2: Solve word problems that	Yes		Mathematical Restoring 1.0 Mathematical Restoring	Students make decisions about how to set up a posblem.	Mathematical Practice Standards	1.MP.1: Make sense of problems and persevere in solving them.	Yes	
	numbers.	Operations and Algebraic Thinking	used. 1 OA.2: Solve word problems that call for addition of finese whole numbers whose runs is less than or equal to 20, e.g., by using objects, drawnings, and equations with a symbol for the unknown number to				1.1 Determine the approach, materials, and strategies to be used.	Notheratical Practice	1.MP.5: Use appropriate tools strategically.	Yes	
			sebseners are broosen.				1.2 Use tools, such as manipulatives or sketches, to model problems.	Mediemetical Practice Standards	1.MP.4 Model with unthematics. 1.MP.5: Use appropriate tools	Yes	
			IOA 5: Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.			2.0 Mathematical Restoring	Students solve problems and justify their reasoning	Mathematical Practice Standards	1.MP.3: Construct viable arguments and critique the reasoning of others. 1.MP.4: Model with mathematics.	Yes	
3.0 Number Sense	Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, and hundreds places.			No	CCS does not mention estimation of quantities except in the Mathematical Practice standards.		2.1 Explain the seasoning used and justify the procedures selected.	Mathematical Practice Standards Mathematical Practice Standards		Yes	
	and hundreds places.				CCS dows not mention extraction of quantities except in the Mathematical Practice standards. Estimation is then described as "make conjectures about the form and meaning of the solution and detect possible errors by		2.2 Make precise calculations and check	Mathematical Practice Standards	1 MP.6: Arread to precision.	Yes	
					other mathematical knowledge."	3.0 Mathematical Resconing	the valuably of the recult: from the context of the problem. 3.0 Students note connections between one problem and mother.	Mediemetrical Practice Standards	1 MP.7. Look for and make use of structure.	Yes	
-	3.1 Make reasonable estimates when comparing larger or smaller			No	CCS does not mention estimation of quantities except in the Mathematical Practice standards.	1		-comment)	1 MP 8: Look for and express regularity in repeated reasoning.		
	when comparing larger or smaller numbers.				of quantities except in the first and provides standards. Estimation is then described as "make conjectures about the form and meaning of the solution and				пералиту и перенен петения.		

First Grade Math Standards

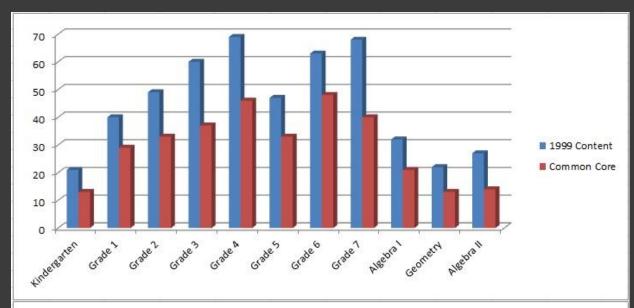
Standards Removed in Red, Partially

Removed in Yellow

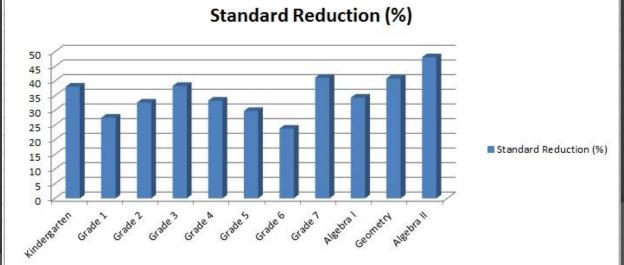
Strand Strand	sis of Canjornia Mainen	tatics stan	dards to Common Co	ore stand	ards-Grade 1						
	CA Math Standard	Domain	Common Core Standard (CCS)	Aligament	Comments in reference to CCS	Strand	CA Math Standard	Domain	Common Core Standard (CCS)	Alignment	Comments in reference to CCS
Number Seate 1.0 Number Seate	CA Math Steadard 1.0 Student: understand and use numbers	Number and	LNBT: Extend the counting	Yes					Common Core Standard (CCS)		detect possible errors by strategically using estimation and other mathematical knowledge."
	up to 100.	Operations in Base Ten	sequence. (Cluster Statement)			Strand Algebra and	CA Math Standard				
	1.1 Count, read, and write whole mumbers to 100.		1.NBT.1: Count to 120, starting at any number less than 120. In this range, read and write numerals and	Yes		Algebra and Function 1.0 Algebra and	1.0 Students use mapping septences with	-	1.0A: Represent and solve	Yes	
		Operations in Base Ten	range, read and write numerals and represent a number of objects with			Punctions	operational symbols and expressions to solve problems.		subtraction. (Cluster Statement)		
-	1.2 Compare and order whole sumber to	Number and		Yes			1.1 Write and solve number sentences			Yes	*Refers to table with consume
	1.2 Compare and order whole numbers to 100 by using the symbols for less than, equal to, or greater than (<, =, >).	Operations in Base Ten	1 NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, n, and <.				from problem situations that express relationships involving addition and subtraction.		1.OA.1: Use addition and subtraction within 20 to solve word problems modeling situations of adding to, taking from puring, together, taking apart, and comparing, with unknowns in all.		addition and subspection situations (e.g., Add to and Take from with result unknown, change unknown, start unknown, etc.).
			results of comparisons with the rymbols >, =, and <.				January Company		together, taking spart, and		start unknown, etc.).
	Represent equivalent forms of the same number through the use of physical models, diagrams, and number expressions.	Operations and	OA 6: Add and subtract within St., demonstrating finency for addrson and subtraction within 10.	Yes					positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to		
	number through the use of physical models, diagrams, and number expressions	Operations and Algebraic Thinking	20, demonstrating finency for addition and subtraction within 10.						recovered the problem.*		
	(to 20) (e.g., 8 may be represented as 4 + 4, 5 + 3, 2 + 2 + 2 + 2, 10 - 2, 11 - 3).		Use strategies such as counting on: making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14), decomposing a			_	1.2 Understand the meaning of the	Operations and	symbol for the unknown number to represent the problem.* 1.0A.7: Understand the meaning	Yes	
ĺ			= 10 = 4 = 14); decomposing a number leading to a ten (e.g., 15 =				symmets +, -, =.	Algebraic Thinking	equations involving addition and		
			making Sm. (e.g., 8 $^{\circ}$ = 6 $^{\circ}$ = 2 $^{\circ}$ + 4 $^{\circ}$ = 10 $^{\circ}$ = 4 $^{\circ}$ 10, 4 $^{\circ}$ 10, 4 decomposing a number isolating to a ten (e.g., 15 $^{\circ}$ = 10 $^{\circ}$ 1 = 9), using the relationship between addition and subtraction (e.g., knowing that 8 $^{\circ}$ 4 = 12, one know 12 $^{\circ}$ 5 = 6); and creating squariosies that easier or known vasus (e.g., siding 6 $^{\circ}$ 7 by creating that known equivalent 6 $^{\circ}$ 6 = 11 $^{\circ}$ 1 = 12 $^{\circ}$ 1 = 15).				2.3 Create problem situations that might		subtraction are true or false.	No	
1			and subtraction (e.g., knowing that $8 + 4 = 12$, one know $12 - 8 = 4$);				Create problem situations that might lead to given number sentences involving addition and subtraction.			300	
			and creating equivalent but easier or known runn (e.g., adding 6 = 7			Strand		_			
			by creating the known equivalent 6 $= 6 + 1 = 12 + 1 = 15$).			Measurement and Geometry	CA Math Standard				
	1.4 Count and group object in ones and tens (e.g., three groups of 10 and 4 equals 34, as 30 = 4).	Number and Operations in	1.NBT 2: Understand that the two digits of a two-digit namber represent amounts of tens and ones. Understand the following as	Yes		Measurement and Geometry 1.0 Measurement and Geometry	1.0 Students are direct comparison and nonstandard units to describe the	Measurement and Data	1 MD: Measure lengths indirectly and by iterating length units. (Cluster Statement)	Yes	
	34, or 30 = 4).	Operations in Base Ten	represent amounts of tens and ones. Understand the following as			-	measurements of objects.	Management	(Cluster Statement)	Dunisl	SMD 2: Maximum and entirestr
Strand	CA Math Standard	Domain		Aliment	Comments in reference to CCS		1.1 Compare the length, weight, and volume of two or more obsects by mine direct	Measurement and Data	1 MD 1: Order three objects by length; compare the lengths of two objects indirectly by using a third	rana	SMD 2: Measure and estimate liquid volumes and masses of objects using standard units of
Strand	CO ALMS SCHERE	Domin	Common Core Standard (CCS) a. 10 can be thought of as a builde of ten ones-called a	.togament	Crements in renerates to CCS	1	objects by using direct comparison or a nonstandard unit.		objects indirectly by using a third object.		grams (g), kilograms (kg), and
			"ten". h The resolver from 11 to 19			Strand	CA Math Standard	Domnin	Common Core Standard (CCS)	Alignment	lines (0). * Add, subract, Comment in reference to CCS andipply, or devide to only one- tep word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement code) to represent the problems.*
ĺ			"ten". b. The trambers from 11 to 19 are composed of a ten and one, two, three, four, five, tix, seven, eight, or time						object as a whole number of length		thep word problems involving
1			tix, seven, eight, or nine ones.						a shorter object (the length unit)		in the came unit, e.g., by using
1			e. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 sefer to						length measurement of an object is		measurement scale) to represent
			one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).						units that span it with no gaps or		*Exclude command units or
	1.5 Identify and know the value of own-		(and 0 ones).	No	2 MD 8: Solve word problems				the object being measured is		*Excludes compound units cm ² and finding the geometric volume of a container
	1.5 Identify and know the value of coms and show different combinations of coms that equal the same value.			100	2MD 8: Solve word problems involving dollar bills, quarters, dames, nickels, and pennies, using dollar signs and cents sign				Common Core Standard (CCS) LMD - Express the longs of ra- object as whole marker of the object as the object as whole marker of the object as whole short as whole marker of the object as and to and, understand that the and to and, understand that the and to and, understand that the the marker of tames—time length mark that spon it with no gops or overlage. Limit for content where the object being monemed it; guessed for a whole smaller of guessed for a whole smaller of ever lags.		a Partialar assistations on
	and the same same				dollar signs and cents sign				- mayb		comparison publican (problems
					CCS does not be be be a second						comparison problems (problems involving notions of "times as much"; see glossary table dealing with common unsimplication and
					first grade. The second grade standard does expect knowledge of value and then computation.		1.1 Tall tage to the necessit holds	Management	LMD 5. Tell and water for	Yes	division situations.)
2.0 Number Sense	2.0 Students demonstrate the marrows of	Operations and	1.OA: Represent and solve	Yes	of value and then computation.		1.2 Tell time to the nearest half hour and relate time to events (e.g., before after, shorter learner)	Measurement and Data	1 MD.3: Tell and write time in hours and half-hours using analog and distributions.	1550	
	2.0 Students demonstrate the meaning of addrson and subtraction and use these operations to solve problems. 2.1 Know the addrson facts (sums to 20) and the converponding subtraction facts and committee to meaning.	Algebraic Thinking	1.OA: Superiers and some problems: survolving addition and inheraction. (Cluster Stotement) 1.OA: Add and subtract within 20, descentiving finency for addition and subtraction within 10. Use strategies such as counting on	0000		2.0 Measurement and Geometry	shorter longer). 2.0 Students identify common prometric figures, classify them by common attributes, and describe their relative.	Geometry	and digital clocks. 1. G: Reason with shapes and their attributes. (Cluster Statement).	Yes	
	2.1 Know the addition facts (name to 20)	Operations and	1.OA.6: Add and subtract within 20. descriptions from the form	Partial	2.0A.2: Florently add and	- Ownamy	attributes, and describe their relative		Committee (Committee or Committee)		
	and commit them to memory.	Algebraic Thinking	addition and subtraction within 10.		2004.2: Frostmy and not subtract within 20 using mental strategies. * By and of Grade 2, know from memory all runs of two one-digit numbers.		athiotete, and describe their relative position or their location in space. 2.1 Identify, describe, and compute thought, sectingles, opures, and curies, including the faces of three-dimensional			No	K.G.4: Analyze and compare
			making ten (a.g., 8 + 6 = 8 + 2 + 4		two one-digit manbers.		squares, and circles, including the				shapes, in different sizes and
			addrawn and subtraction within 10. Use strategies such as counting on: making ten (e.g., 8 = 6 = 5 = 2 + 4 = 10 = 4 = 14); decomposing a number leading to a ten (e.g., 13 = 4 = 13 = 3 - 1 = 10 - 1 = 9); using the relationship between addition				objects.				E.G.4: Analyze and compare two- and these-dimensional shapes, in diffused rines and ensemblent, using informal language to describe their simulations, differences, parts (e.g., number of sides and vertices? Commerc?) and other attributes (e.g., having sides of sexual learnish
			the relationship between addition and subtraction (e.g. knowing the								(e.g., number of sides and
			and subtraction (e.g., knowing that 5+4=12, one know 12-5=4); and creating equivalent but easier or known sums (e.g., adding 6 = 7								rertices comers; and other situations (e.g., having sides of equal length).
			or known sums (e.g., adding 6 = 7				2.2 Classify finalize plane and solid objects by common attributes, such as color, position, shape, size, rounders, or number of corners, and explain which attributes are being used for classification. CA Math Standard	Geometry	1.G.1: Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus nee-defining attributes (e.g., color, control of the color, build and color, build and color, and color, and color, build and color, and	Yes	
Strand	CA Math Standard	Domain	Common Core Standard (CCS) by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13). 1 OA 4: Understand subtraction as an unknown-addend problem.	Alignment	Comments in reference to CCS		color, pesition, shape, size, roundness, or		are closed and three-sided) versus		
	2.2 Use the inverse relationship between	Operations and	6+6+1=12+1=13).	Yes		Strand	attributes are being used for classification.	Domain		Aller	Comment is reference to CCC
	addition and subtraction to solve problems.	Operations and Algebraic Thinking Number and	an unknown-addend problem.	165		recond		positis	draw shapes to possess defining	Augusteut	Comments in reference to CCS
	2.3 Identify one more than, one less than, 10 more than, and 10 less than a given		LNBT 5: Goven a two-digit massive, mentally find 10 more or 10 less that the number, without having to count: explain the reasoning used.	Yes			2.5 Gree and follow directions about		and the same of th	No	
	10 more than, and 10 less than a given number.	Operations in Base Ten	10 less that the number, without				location. 2.4 Arrange and describe objects in spare by proximity, position, and direction (e.g., nam, fix, below, above, up, down, behind, in front of, next to, left or right of).			No	K.G.1: Describe objects in the environment using names of shapes and describe the relative positions of these objects using terms read as above, below, beside, in front of, below,
	2.4 Count by 2s. 5s. and 10s to 100		reasoning soed.	Portol	K CC 1: Count to 100 by one:		near, fix, below, above, up, down, behind, in front of, next to, left or right of				shapes and describe the relative
	2.4 Count by 2s, 5s, and 10s to 100.	Counting and Cordinality	1.OA.5: Relate counting to addrson and subtraction (e.g., by counting on 2 to add 2).	Partial	and by tens.						berns ruch as above, below, beside, in front of behind, and
		Operations and	counting on 2 to add 2).		2.NBT 2: Count within 1000; by 51, 101, and 1001.	Strand					nest to.
		Operations and Algebraic Thinking				Statistics, Data	CA Math Standard				
	2.5 Show the meaning of addition (puring together, increasing) and subtraction (taking away, comparing, finding the different parties.			No	K.OA: (Cluster Statement) Understand addition as putting	Statistics, Data Analysis, and Probability 1.0 Statistics, Data		Mann	1MD Persons - 1	Ves	
	(taking away, comparing, finding the difference).				Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	1.0 Statistics, Data Analysis, and Parbability	Students organize, represent, and compute data by category on sample graphs and clasets.	Measurement and Data	1.MD: Represent and interpret data (Charter Statement).	185	
					apart and taking from		1.1 Sort objects and data by common attributes and describe the categories.	1			100
	2.5 Solve addition and subtraction problems with one-and two-digit numbers (e.g., 5 = 58 =).	Number and	1.NBT.4: Add within 100,							No	K.MD.3: Classify objects into
	A THE OWN AND THE WAY DESIGNATION OF THE OWN AND ADDRESS OF THE OWN AND ADDRESS OF THE OWN AND ADDRESS OF THE OWN ADDRESS OF TH		including adding a two-dige.	Yes			attributes and describe the extegories.			No	KMD3: Classify objects into given categories, count the numbers of objects in each
	(e.g., 5+38=_).	Operations in Base Ten	including adding a two-digit number, and adding a two-digit number and a matterla of 10.	Yes						No	KMD.3. Classify objects rate given categories, count the numbers of objects in each category and not the categories by count.
	(a.g., 3 = 38 = _).	Operations in Base Ten	including adding a two-digit number, and adding a two-digit number and a multiple of 10, using concrete models or disvange; and stretumes based on place and	Yes					1MD-4: Organize, represent, and	No Yes	R.MD.3: Classify objects unto given categories, count the numbers of objects in each category and sort the categories by count.
	(Ag.3-35)	Openhan in Base Ten	including adding a two-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawing; and strategies based on place value, properties of operations, and/or the relationship between addings.————————————————————————————————————	Yes				Measurement and Data	13MD 4: Organize, represent, and interpret data with up to three categories, ask and moves	No Yes	K.MD.3: Classify objects sate given categories; count the numbers of objects in each category and sort the categories by count.
	(e.g., 3 = 35 =).	Operation in Size Ten	including adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the selationship between additions and subtraction; related the strategy to a written method and avoiding the	Yes			attributes and describe the categories. 1.2 Expressent and compare data (e.g., largest, mattless, most other, sours often) by samp picture, but graphs, tally chart, and picture graphs.	Measurement and Data	13MD-4: Organize, segment, and innerpret data with up to those categories; sik and anover questions about the total number of data points, forw many in each	No Yes	E.MD.3: Classify objects unto given categories, count the number of objects in each category and nort the categories by count.
	(e.g., 3 + 35 =).	Openhous in Sase Ten	including adding a reve-digit number, and adding a reve-digit number and a multiple of 10, using concrete unsides or durating and strategies beared on place whose, properties of operations, and/or the estatemiship between addings and subtractions; related the strategy to a written unstided and explain the reasoning used. Understand that in adding two-dupt numbers: one	Yes				Measurement and Data	13MD-4: Organize, represent, and interpret data with up to those creapories; that and ancover questions about the total insuber of data pounts, how many in each critiquity, and how many more or less are on one cripenty than in	No Yes	E.MD.3: Classify objects sate given categories; count the numbers of objects in each cumbers of objects in each country of objects and out the categories by count.
	(e.g., 3 + 35 =).	Openhous in Sate Ten	including ablancy a two-dept number, and adapt a two-dept number and a multiple of 10, using concrete models or drawings and trategies based on place values, properties of operations, malor the adaptional potentials and anderaction, relations and anderaction, relation the avoiding number of the adaption of a vertices method and explain the adding two-depti meabour, one adds two and two, one and one; and constitute it is measured.	Yes		2.0 Stanistics. Date	1.3 Enquested and compare data (e.g., largest, smallest, most offen, heart offen) by saing picture, but graph, tally chart, and picture graph.	Measurement and Data	13MD 4: Organize, represent, and integrate data with up to face critegories; als and anover questions about the stati number of data possits, here many as soft critique, and how many more or less are in one critegory, and how many more or less are in one critegory than in another.	No Yes	gives categories, count the numbers of objects in each category and nort the categories by count.
	(64,3-38).	Operations in Sane Ten	1303 A. Add within 100, michology shadows, and adding a two-dept number, and antique at the complex and a strategies of 10, ming concrete models or drawings and strategies thread on place white, mixing the least of pages within the complex of the state of of the	Yes		2.0 Statistics, Data Analysis, and Probability	1.3 Empressed and compare data (e.g., largest, smallest, most offen, heat offen) by saing picture, but graph, tally chart, and picture graph.	Measurement and Data	13/ID-8. Organies, represent, and interpret date with up to these categories; aid and across questions about the steal number of date possits, how easily us each category, and how many size or category, and how many size or another.	No Yes	gives categories, count the number of objects in each category and out the categories by count. CCS mentions patterns in the
Strand	(s.g., 3 = 23 =). CA Misth Steadure!	Operations in State Text	including abiling a two-digit number, and abiling a two-digit number and a multiple of 10, using concrete models or drawings and intringues brased on place while reportative of operations, and/or the properties of operations, and/or the national control of the second of the national control of the second of the reasoning used. Understand that in adding two-digit numbers, one adds two and tens, ones and ones; and consument it is necessary to compute a ten.		Community in reference to CCS	1000000	1.3 Expresses and compare data (e.g., laspest, smallest, soort offees, loat offees) by using pictures, but graphs, tally charts, and picture graphs. 2.0 Students sort objects and create and decembe prieters by smallest, shapes, latter, highers, trainer, shapes.	ocenta(Te)		No Yes	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translational Professional Proctices Standards Translational Professional Procession Standards Translational Professional Professional Procession Standards Translational Professional Professional Processional Processional Professional Professional Professional Processional Professional Pr
Straad			including abiling a two-digit number, and abiling a two-digit number and a multiple of 10, using concrete models or drawings and intringues brased on place while reportative of operations, and/or the properties of operations, and/or the national control of the second of the national control of the second of the reasoning used. Understand that in adding two-digit numbers, one adds two and tens, ones and ones; and consument it is necessary to compute a ten.		Community in reference to CCS	20 Stationer, Data Analysis, and Pushalalay Strand	1.3 Expresses and compare data (e.g., laspest, smallest, soort offees, loat offees) by using pictures, but graphs, tally charts, and picture graphs. 2.0 Students sort objects and create and decembe prieters by smallest, shapes, latter, highers, trainer, shapes.	ocenta(Te)	13(1):4. Organies, represent, and interpret date with up to these empories; this suit survey and the point, here may not an empories; this suit survey are designed, and the point, here many more decapancy, and how many more denotes on the control of the control	No Yes No Alignment No	gives categories, count the number of objects in each category and out the categories by count. CCS mentions patterns in the
Straad			uncluding Adding a two-digit uncluding Adding a two-digit unclude and a strategie of 16, uncluding and a strategie of 16, uncluding and a strategie based on glacer value, proportion of operations, and/or the attachment process and adding and uncluding uncluding and uncluding the attachment of the adding two-digits uncluding and design the adding two-digit numbers, one adding two-digit numbers, one adding two-digits uncluding and two made them, and our not and ones, and constrained in its naneauxy to compare a loss. Communic Core Standard (CCS) LNB16. Subsect multiples of 10. uncluding the constrained on the complex of the manufactor of the constrained of the constrain		Сепшнит із гебечног за ССЅ	1000000	1.3 Expresses and compare data (e.g., laspest, smallest, soort offees, loat offees) by using pictures, but graphs, tally charts, and picture graphs. 2.0 Students sort objects and create and decembe prieters by smallest, shapes, latter, highers, trainer, shapes.	ocenta(Te)		Yes No Alignment No	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translational Professional Proctices Standards Translational Professional Procession Standards Translational Professional Professional Procession Standards Translational Professional Professional Processional Processional Professional Professional Professional Processional Professional Pr
Straad			uncluding Adding a two-digit uncluding Adding a two-digit unclude and a strategie of 16, uncluding and a strategie of 16, uncluding and a strategie based on glacer value, proportion of operations, and/or the attachment process and adding and uncluding uncluding and uncluding the attachment of the adding two-digits uncluding and design the adding two-digit numbers, one adding two-digit numbers, one adding two-digits uncluding and two made them, and our not and ones, and constrained in its naneauxy to compare a loss. Communic Core Standard (CCS) LNB16. Subsect multiples of 10. uncluding the constrained on the complex of the manufactor of the constrained of the constrain		Communité la reference to CCS	1000000	1.3 Empressed and compare data (e.g., largest, smallest, most offen, heat offen) by saing picture, but graph, tally chart, and picture graph.	ocenta(Te)		Yes Yes No	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translational Professional Proctices Standards Translational Professional Procession Standards Translational Professional Professional Procession Standards Translational Professional Professional Processional Processional Professional Professional Professional Processional Professional Pr
Straad			uncluding Adding a two-digit uncluding Adding a two-digit unclude and a strategie of 16, uncluding and a strategie of 16, uncluding and a strategie based on glacer value, proportion of operations, and/or the attachment process and adding and uncluding uncluding and uncluding the attachment of the adding two-digits uncluding and design the adding two-digit numbers, one adding two-digit numbers, one adding two-digits uncluding and two made them, and our not and ones, and constrained in its naneauxy to compare a loss. Communic Core Standard (CCS) LNB16. Subsect multiples of 10. uncluding the constrained on the complex of the manufactor of the constrained of the constrain		Community in reference to CCS	Straud	1.2 Expose and compare data in g., last of these, last of these, last of these, last of these control of the co	ocenta(Te)		Yes No Alignment No	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translational Professional Proctices Standards Translational Professional Procession Standards Translational Professional Professional Procession Standards Translational Professional Professional Processional Processional Professional Professional Professional Processional Professional Pr
Straad			michaling adding a two-digit matching adding a two-digit unable and a satisface of 1% using concerts models or drawing; and concerts models or drawing; and properties of opporations, make the addings of the properties of opporations, and/or the addings of the properties of opporations, and/or the addings of the properties of the analysis of the accommendation of the analysis of the analysis of the company as into 100 and to make 100 per control of 100 and the part of the company as into 100 and the part of the 100 and the part of the 100 per control of 100 per control of		Community in reference to CCS	Straud	12 Exposure and compare dark in g., by various protects, but grades, sally charts, and protects projects, sally charts, and protects projects, sally content protects projects and content protects by contents by unablests, shapes, and describe protects by contents by unablests, shapes, and describe protects by the contents of the con	Dozzin	Common Core Standard (CCS)		given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translational Professional Proctices Standards Translational Professional Procession Standards Translational Professional Professional Procession Standards Translational Professional Professional Processional Processional Professional Professional Professional Processional Professional Pr
Strand		Donnin	michaling adding a two-digit matching adding a two-digit unable and a satisface of 1% using concerts models or drawing; and concerts models or drawing; and properties of opporations, make the addings of the properties of opporations, and/or the addings of the properties of opporations, and/or the addings of the properties of the analysis of the accommendation of the analysis of the analysis of the company as into 100 and to make 100 per control of 100 and the part of the company as into 100 and the part of the 100 and the part of the 100 per control of 100 per control of		Comment is reference to CCS.	Strand	1.2 Expose and compare data in g., last of these, last of these, last of these, last of these control of the co	Dozzin	Common Core Standard (CCS)	Yes Yes Aligament No	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translational Professional Proctices Standards Translational Professional Procession Standards Translational Professional Professional Procession Standards Translational Professional Professional Processional Processional Professional Professional Professional Processional Professional Pr
Straud	CA Mitth Mondard	Donnin	methoding adding a two-degin mathematical and mathematical and mathematical and mathematical and mathematical and mathematical and properties of operations, under the appropries of operations, under the analysis of the ana		Communi is reference to CCS	Straud	12 Segment and compare dark in g., by using picture, but gright, nily chairs, and picture purple, nily chairs, and picture project. 23 Students out objects and create and describe pictures by maders, shapes, and, picture, a container, and, picture, a container, and, picture, a container, and a student picture, and a student pict	Dozzain Mathematical Practice Soundards	Common Cure Standard (CCS) 1.MF1: Make sense of problems and persever in solving them.		given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translational Professional Proctices Standards Translational Professional Procession Standards Translational Professional Professional Procession Standards Translational Professional Professional Processional Processional Professional Professional Professional Processional Professional Pr
Stread	CA Mitth Mondard		methoding adding a two-degin mathematical and mathematical and mathematical and mathematical and mathematical and mathematical and properties of operations, under the appropries of operations, under the analysis of the ana		Communities to CCS	Straud	13. Experience and compare data to a g, larger manifest man of the six short from the contract of the compare that the contract of the compare that the contract of the contra	Dozzain Mathematical Practice Soundards	Continuous Core Standard (ICCS) 1.MP 1: Made were of purblems and personner in solving flees. 1.MP 5: Use appropriate tools storageable.	Yes Yes	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translateration professor
Stread	CA Mitth Mondard	Donnin	mobilities design to we design to we design to we design with a second of the second o		Communit in reference to CCS.	Straud	13. Experience and compare data to a g, larger manifest man of the six short from the contract of the compare that the contract of the compare that the contract of the contra	Domain Mathematical Stration	Custom Cure Standard (CCS) 1.MP 1: Make war of published and parameters in tabling flets. 1.MP 5: Due purpopular tools stategiedly. 1.MP 4: Model with mathematics.	Yes	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translateration professor
Strand	CA Mitth Mondard	Donnin	unchange design two-sloging collections and control an		Community in reference in CCS	Straud	12 Segment and compare dark in g., by using picture, but gright, nily chairs, and picture purple, nily chairs, and picture project. 23 Students out objects and create and describe pictures by maders, shapes, and, picture, a container, and, picture, a container, and, picture, a container, and a student picture, and a student pict	Dozzain Mathematical Practice Soundards	Common Core Standard (CCS) 1.MP.1. Mide were of problems and personner in subring flam. 1.MP.5. Use agreement both strategically. 1.MP.5. Use agreement and the strategically. 1.MP.5. Use agreement both strategically.	Yes Yes	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translateration professor
Stread	CA Mitth Mondard	Donnin	unchange along two-slage in the slage in the		Gamani is reference is CCS.	Strand Strand Mathematical Reasoning 10 Mathematical Reasoning	13. Experience and compare data to a g, larger manifest man of the six short from the contract of the compare that the contract of the compare that the contract of the contra	Donnin Mehamitial Practice Standard Mythemitial Practice Standard Mythemitial Practice Standard Practice Standard Practice	Common Core Standard (CCS) 1.MP.1. Mide were of problems and personner in subring flam. 1.MP.5. Use agreement both strategically. 1.MP.5. Use agreement and the strategically. 1.MP.5. Use agreement both strategically.	Yes Yes	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translateration professor
	CAMed Steadard CAMed Steadard 2.7 Fact the sum of time one-digit members.	Donnin	unchange design two-sloging collections and control an	Alignment Yes		Strand Strand Mathematical Resistance 10 Mathematical Resistance	13. Experience and compare data to a g, larger seminode, used offices, larger from linear controller, larger flows, larger flows	Donnin Mehamitid Mehamitid Stallardi Mehamitid Partico Stallardi Mehamitid Protico Stallardi Mehamitid Stallardi Mehamitid Stallardi Mehamitid Stallardi Mehamitid	Common Core Standard (CCS) 13891 Make sense of prolimes and provinces in solving films 13893 The appropriate tools transported to the property of the propert	Yes Yes Yes Yes	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translateration professor
	CA Medi Standard 2.1 Fact the runs of form one-digit matrice. 3.3 Standard our estimation of region as	Donnin	unchange along two-slage in the slage in the		CC5 dars not manten estimation of quantities except in the	Strand Strand Mathematical Reasoning 10 Mathematical Reasoning	13. Egyption and compare data to g, larger, makes used of the p, larger, beautiful to the contraction of the p, larger from the	Mathematical Practice Studies of Practice of Pract	Common Core Standard (CCS) 1.MP.1. Mide were of problems and personner in subring flam. 1.MP.5. Use agreement both strategically. 1.MP.5. Use agreement and the strategically. 1.MP.5. Use agreement both strategically.	Yes Yes Yes	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translateration professor
	CA Mitth Mondard	Donnin	unchange along two-slage in the slage in the	Alignment Yes	CC5 dars not manten estimation of quantities except in the	Strand Strand Mathematical Reasoning 10 Mathematical Reasoning	13. Experience and compare data to a given before the compare of t	Donnin Mehamatical Practice Standards Mathematical Practice	Common Cere Standard (CCS) 1307.1 Males were d'publisses and processes in alwhys flows. 1307.2 The prospective the control of	Yes Yes Yes Yes	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translateration professor
	CA Medi Standard 2.1 Fact the runs of form one-digit matrice. 3.3 Standard our estimation of region as	Donnin	unchange along two-slage in the slage in the	Alignment Yes	CC5 dars not manten estimation of quantities except in the	Strand Strand Mathematical Reasoning 10 Mathematical Reasoning	13. Experience and compare data to Eq. largest controller, more offers, how others, have others, has	Donnin Mehamatical Practice Standards Mathematical Practice	Common Core Standard (CCS) 13891 Make sense of prolimes and provinces in solving films 13893 The appropriate tools transported to the property of the propert	Yes Yes Yes Yes	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translateration professor
	CA Medi Standard 2.1 Fact the runs of form one-digit matrice. 3.3 Standard our estimation of region as	Donnin	unchange along two-slage in the slage in the	Alignment Yes	CCV have not mention orientation of quantities enough as fine Medicantented Province tradeled in Medicantented Province tradeled in Medicantented Province tradeled in Medicantented Province tradeled in Medicantente and Province tradeled in Medicantente and Medi	Strand Strand Mathematical Encountry 10 Methematical Rancenng 20 Methematical Rancenng	13. Experience and compare data to a given before to a given and compare data to a given any attention, these datasets, the support of the compared to the com	Domain Methometical Straight of Straight of Straight of Particle Straight of Particle Straight of Str	Common Cere Standard (CCS) 1307.1 Males were d'publisses and processes in alwhys flows. 1307.2 The prospective the control of	Yes Yes Yes Yes	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translateration professor
	CA Medi Standard 23 Food for ross of flow one-dige number. 3.3 Students on estimation compare to environmental for ross for ros	Donnin	unchange along two-slage in the slage in the	Alignment Yes	CCS date set mention estimation of quantities enterpt in the acceptance of the control of the co	Strand Strand Mathematical Reasoning 10 Mathematical Reasoning	13. Experience and compare data to Eq. largest controller, more offers, how others, have others, has	Donnin Mehamatical Practice Standards Mathematical Practice	Common Cere Nanderl (CCS) 13(7) Male were of prilitions and processes in subseq files 14(7) Softe were of prilitions and processes in subseq files 14(7) Softe propries both shamperilly 13(7) Softe propries 13(7) Admit of procious 13(7) Admit of procious 13(7) Admit of procious 13(7) Softe files and male use of shamperilly	Yes Yes Yes Yes Yes Yes	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translateration professor
	CA Medi Standard 23 Food for ross of flow one-dige number. 3.3 Students on estimation compare to environmental for ross for ros	Donnin	unchange along two-slage in the slage in the	Alignment Yes	CCS date set mention estimation of quantities enterpt in the acceptance of the control of the co	Strand Strand Mathematical Encountry 10 Methematical Rancenng 20 Methematical Rancenng	13. Experience and compare data to a given before to a given and compare data to a given any attention, these datasets, the support of the compared to the com	Domain Methometical Straight of Straight of Straight of Particle Straight of Particle Straight of Str	Common Cere Vasadorá ICCS) 13/21 Males were of prilities and processor in subseq files. 13/22 See aprepares with shangarding. 13/24 See aprepares with shangarding. 13/25 See aprepares with shangarding. 13/25 See aprepares with shangarding. 13/25 See aprepares with shangarding see and	Yes Yes Yes Yes Yes Yes	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translateration professor
Stevand Stevand 3.0 Nambus Stevan	CA Medi Standard 2.1 Fact the runs of form one-digit matrice. 3.3 Standard our estimation of region as	Donnin	unchange along two-slage in the slage in the	Alignment Yes	CCV have not mention orientation of quantities enough as fine Medicantented Province tradeled in Medicantented Province tradeled in Medicantented Province tradeled in Medicantented Province tradeled in Medicantente and Province tradeled in Medicantente and Medi	Strand Strand Mathematical Encountry 10 Methematical Rancenng 20 Methematical Rancenng	13. Experience and compare data to a given before to a given and compare data to a given any attention, these datasets, the support of the compared to the com	Domain Methometical Straight of Straight of Straight of Particle Straight of Particle Straight of Str	Common Cere Nanderl (CCS) 13(7) Male were of prilitions and processes in subseq files 14(7) Softe were of prilitions and processes in subseq files 14(7) Softe propries both shamperilly 13(7) Softe propries 13(7) Admit of procious 13(7) Admit of procious 13(7) Admit of procious 13(7) Softe files and male use of shamperilly	Yes Yes Yes Yes Yes Yes	given categories, count the number of objects in each category and not the categories by count. CCS mentions problems in the Mathematical Proctice Standards Translateration professor

	sis of California Mathem		10 \	N	ands Grade 1						
	SIS OI California Mathem CAMsth Standard		Common Core Standard (CCS)			Strand	CA Math Standard	Domain	Common Coay Secretaria (Cara	Alier	Comment is
Strand Strand Number Sense 1.0 Number Sense	CA Math Standard				Commande in CCS	Strand	CASIMI Studied	Donnes	Common Core Standard (CCS)	Alignment	strategically using estimation and
1.0 Number Sense	1.0 Student: understand and use numbers up to 100.	Number and Operations in Base Ten Number and	1 NBT: Extend the counting sequence. (Cluster Statement)	Yes		Strand	CA Math Standard				other nurhematical knowledge."
	1.1 Count, read, and write whole manbers to 100.	Number and Operations in Base Ten	1NBT.1: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with	Yes		Strand Algebra and Function 1.0 Algebra and Functions	1.0 Students use number sentences with operational symbols and expressions to		1.OA: Represent and solve problems accolving addition and subtraction. (Cluster Statement)	Yes	tr.
	1.2 Compare and order whole numbers to 100 by using the symbols for less than, equal to, or greater than (<, =, >). 1.3 Represent equivalent florars of the same	Number and Operations in Base Ten	a witten numero. 1.NST.3: Compare two two-digit mumbers based on meanings of the tens and ones slight, recording the results of comparisons with the symbols s _i , a, and «	Yes			once process. 1.1 Write and solve number sentences from problem situations that express relationships involving addition and subtraction.		1.OA.1: Use addition and substantion within 20 to tolkw used problems involving situations of adding to, taking from partial comparing, with unknowns in all positions, e.g., by using objects, downings, and equations with a symbol for the unknown number to requested the problem.*	Yes	*Refers to table with consesses addition and subsection situation describes situation (e.g., Add to and Take from with result suthnoves, change suknoves start unknown, etc.).
	1.3 Represent equivalent forms of the same number through the use of physical models, diagrams, and number expectations (to 20) (e.g., 3 may be represented as 4 + 4, 5 + 3, 2 + 2 + 2 + 2, 10 - 2, 11 - 3).	Operation and Algebraic Thinking	1 OA 6: Add and subtract within 20, descentishing fluency for addition and subtraction within 10. Use traitegies such as counting on: making ten (e.g. 8 - 6 - 8 - 2 + 4 = 10 - 4 = 14), decomposing a			-	1.2 Understand the meaning of the symbols *, *, *.	Operations and Algebraic Thinking	symbol for the unknown number to require at the problem.* 1.0A.7: Understand the mension of the equal sign, and determine if equations involving addition and subtraction are true or false.	Yes	
			One consequence of the conseque					100000	subtraction are true or false.		
			or known runn (e.g., adding 6 = 7 by creating the known equivalent 6 = 6 = 1 = 12 = 1 = 11)			Strand Measurement and	CA Math Standard				
	1.4 Count and group object in ones and tens (e.g., three groups of 10 and 4 equals 34, or 30 = 4).	Number and Operations in Base Ten	LNBT.2: Understand that the two	Yes		Measurement and Geometry 1.0 Measurement and Geometry	1.0 Students use direct comparison and nonstandard units to describe the	Measurement and Data	1 MD: Measure length: indirectly and by iterating length units. (Cluster Statement)	Yes	
Strand	34, or 30 = 4).	Base Ten Domain	INBT 2: Understand that the two- digits of a two-digit number represent numeric fees and ones. Understant the following as special cases: Common Core Standard (CCS) a. 10 cm be throught of as a brundle of two other-called a "bed."	Alimment	Comments in reference to CCS		measurements of objects. 1.1 Compare the length, weight, and volume of two or more objects by using direct comparison or a nonstandard unit.	Measurement and Data	(Cluster Statement) 1 MD 1: Order three objects by length, compare the lengths of two objects indirectly by using a third object.	Partial	3MD 2: Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilopsium (kg), and lines (l).* Add, subtract,
			10 can be thought of as a bundle of ten ones-called a						object.		grams (g), kilograms (kg), and liters (l).* Add, subtract,
			brundle of the ones-called a "ben". b. The numbers thron 11 to 19 are energoned of a bea and one, two, there, from, five, interest, extra control. The numbers 10, 20, 30, 46, 50, 60, 70, 80, 80 sefer to one, two, three, four, five, int., seven, eight, or more beam (and 0 ones).		100	Strand	CA Math Senudard	Domain	Common Core Standard (CCS) IMD 2: Express the length of an object as which analise of length vanish, by laying unshiple copies of a share object the length vanish, by laying unshiple copies of a share object the length and to not, understond that the length anaiousement of an object in the unshed of same-size length analises of same-size length coverage. Limit to content where the object being monatored is guerned by a whole number of length anits with no page or overlage.	Aligament	lines (0).* Add, subtract. Commants in reference to CCS multiply, or divide to solve exa- ting only popularity and the grown to be some under the grown to be some under the tree grown to be some units, og, by using chronings (such as a beaker with an incrementar tools) to represent the problem. **Exchalest compound units cm? and finding the prometric volume ef a certitater.
					2.3.00.% Solve word problems: smooking dollar bills, quarters, disars, noticels, and penuses, using dollar signs and cents sign appropriately. CCS does not introduce unnery or first grade. The second grade standard does expect knowledge		1.2 Tell time to the nearest half how and relate time to events (a.g., before before,	Mesouvement and Data	ispanies by a vision temper of length units with no gapt or overlaps. LMD 3: Tell and write time in hours and half-bours using analog	Yes	Encludes assitiplicative comparison problems (problems are similar assistant of "finner as amosh", see glossary table dealing with common multiplication and division inhances.)
2.0 Number Sence	2.0 Students demonstrate the meaning of	Operations and Alesbraic	1.OA: Represent and solve	Yes	of value and then computation.	18 Manager	relate time to events (e.g., before lifter, shorter longer).	and Data	hours and half-hours using analog and digital clocks. 1.G: Reason with shapes and their attributes. (Cluster Statement).	Yes	-
	2.0 Student: demonstrate the meaning of addition and subtraction and sus these operations to solve problems. 2.1 Know the addition facts (sums to 20) and the convergencing subtraction facts and committee them to memory.	Algebraic Thinking Operation and Algebraic Thinking	mbtraction. (Cluster Statement) 1. O.A.6: Add and subtract within 20, demonstrating finency for addition and subtraction within 10.	Partal	2.OA.2: Finestly add and subtract within 20 using mental strategies.* By end of Grade 2. know from memory all runs of two one-digit numbers.	2.0 Measurement and Geometry	therter-longer). 2.0 Students identify common prometric figures, classify them by common attributes, and describe their relative position or their location in space.	Gittalia	attribute. (Cluster Statement).	16	K.G.4. Analyze and compare
			1.OA: Represent and solve problems servicing addition on release the model of the problems of the problem		know from memory all tume of two con-digit numbers.			See the	1.G.: Distinguish between	V.	K.G.4. Analyse and compute two: and three-dissensional chapts, in different trace and extentionin, using informal language to describe their similarities, differences, parts (e.g., number of index and vertices? commer?) and other attributes (e.g., having sides of equal length).
Strand	CA Math Steadard	Domain	Common Core Standard (CCS) by creating the known equivalent 6+6+1=12+1=13). 1 OA.4: Understand subtraction as an unknown-addend problem.	Aligament	Comments in reference to CCS		2.2 Classify finalism plane and solid objects by consume attributes, such as coles, position, thaps, size, considers, or number of corners, and explain which attributes are being used for classification.	Citatin)	are closed and three-sided) versus		
	2.2 Use the inverse relationship between addition and subtraction to solve problems.	Operations and	6+6+1=12+1=13). 1 OA 4: Understand subtraction as	Yes		Strand	attributes are being used for classification. CA Math Standard	Domain	non-defizing attributes (e.g., color, orientation, overall size); build and Common Core Standard (CCS) draw shapes to possess defizing	Alignment	Comments in reference to CCS
	2.3 Identify one more than, one less than, 10 more than, and 10 less than a given number.	Algebraic Thinking Number and Operations in Base Ten	an transours-access process: 1.NBT.5: Geven a two-digit seasible, mentally find 10 soore or 10 less that the number, without having to count: explain the reasoning used.	Yes					draw thapes to possess defining attributes.		
	2.4 Count by 2s, 5s, and 10s to 100.	Couring and Cardinality	having to count: explain the reasoning tood. 1.OA.5: Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	Partial	K.CC.1: Count to 100 by ones and by tens.						action to the property of the environment using numes of thepes and describe the relative positions of these objects using terms ruch as above, below; beater, and property of the property of
	-	Operations and Algebraic Thinking	counting on 2 to add 2).		2 NBT 2: Count within 1000; by 5s, 10s, and 100s.	Strand					metal to
		Thinking				Analysis, and Probability	CA Math Standard				
					K OA: (Charter Statement) Understand addition as puring together and adding to, and understand subtraction as taking apart and taking from	Strand Statistics, Data Analysis, and Probability 1.0 Statistics, Data Analysis, and Probability	1.0 Students organize, represent, and compare data by category on simple graphs and charts.	Measurement and Data	1.MD: Represent and interpret data (Charter Statement).	Yes	
			LNBT 4: Add within 100,		apart and taking from.		popular const				K.MD.3: Classify objects into
	2.6 Solve addition and subtraction problems with one-and two-digit numbers (e.g., 5 + 55 =).	Number and Operations in Base Ten	INSTA: Add within 100, including adding a two-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and	165			1.2 Expressed and compare data (e.g.,		13/D.4 Oceanin represent and	Yes	KMD3: Classify objects into given categories; count the numbers of objects in each category and nort the categories by count.
			118374. Add wethin 100, michding adding a two-digit mumber, and adding a two-digit mumber, and antique of 10, mixing occurred models or drawing; and mixingue from gainer within mixingue from a gainer within mixingue from a gainer within a substruction; mixingue from a factor of the substruction of the sub				1.3 Exponent and compare data (e.g., lasper, smallest, most offen, least offen) by sings picture, but graphs, tally chart, and picture graphs.	Measurement and Data	13/ID 4: Organize, represent, and interpret data with up to three categories; solt and anower questions about the total insuber of data points, how many an each category, and how many more or less are in one category than in another.		
			and togarither if it pecentary to compose a ten.			2.0 Statistics, Data Analysis, and Probability					CCS mentions patterns in the Mathematical Practice Standards 'mathematically proficient students look closely to discern a
Straud	CA Math Steadard	Domnia	Common Core Streeterd (CCS)		Comments in reference to CCS	Strand	CA Math Streeterd	Downin	Common Core Standard (CCS)	Alignmen	students look closely to discern a nation or structure." Comments in reference to CCS
			INBT.6: Subtrace multiples of 10 in the range 10-90 from subhples of 10 in the range 10-90 from subhples of 10 in the range 10-90 from subhples models or desiverage and vistage concrete models or desiverage and vistages haved on place visbes, properties of operations, and/or the subtraction, population, and/or the subtraction, related the transley to a visities matched and explain the reasoning used.			Strand Mathematical	CA Moth Standard				
			related the strategy to a written method and explain the reasoning			Mathematical Reasoning 1.0 Methematical	CA Moth Standard 1.0 Students make decisions about how to not up a publism.	Mathematical	1 MP.1 Make sense of mobbins	Yes	
	2.7 Find the rum of three one-digit numbers.	Operations and Algebraic Thinking	1.OA.2: Solve word problems that	Yes		Reasoning		Methemetical Practice Standards	1.MP.1: Make sense of problems and persevere in solving them.		
		Thinking	call for addition of flares whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.				1.1 Determine the approach, materials, and strategies to be used. 1.2 Use tools, such as manipulatives or shatches, to model problems.	Mathematical Practice Standards Mathematical	1.MP.5: Use appropriate tools strategically. 1.MP.4: Model with mathematics.	Yes Yes	
			10A.5: Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.			2.0 Mathematical	Students solve problems and justify their	Practice Standards Mathematical	1349.5: Use appropriate tools strategically. 1349.3: Construct visible	Yes	
3.0 Number Sence			three whole numbers.		CCS dows not spection extigation	Restoring	resconing	Mathematical Practice Standards	trategically. 1.MP.3: Construct viable argument; and critique the reasoning of others. 1.MP.4: Model with mathematics.	Yeo	
					of quantities except in the Mathematical Practice standards.		2.1 Explain the reasoning used and justify the procedures selected.	Mathematical Fractice Standards Mathematical			
					numerion is then described as "make conjectures about the form and messing of the solution and		2.2 Make precise calculations and check the validity of the results from the contest	Mathematical Practice Standards	1 MP.6: Attend to precision.	Yes	
					CCS does not mention withmather of quantities except in the Mathematical Practice standards. Estimation is then described in "made conjectures about the form and menuing of the solution and detect possible entors by strategically using estimation and other mathematical knowledge."	3.0 Mathematical Renoming	of the problem. 3.0 Students note connections between one problem and mother.	Standards Mathematical Practice Standards	1 MP.7. Look for and make use of structure. 1 MP.S. Look for and express	Yes	
					CCS does not mention estimation of quantities except in the Mathematical Practice standards. Extensions is the described as "make conjectures about the form and meaning of the solution and				1 MP.S: Look for and express regularity in repeated reasoning.		
					and messing of the solution and	J					

1999 Standards Removed



Median
Percentage of
Standards
Removed



34%

Increased Focus on Key Content

No longer "an inch deep and a mile wide"

 The remaining 1999 standards have been expanded upon, and greater depth in content instruction is expected

Increased Depth – 6th Grade Standards

1999	Т	CC	1999	1	CC
1.2 Write and evaluate an algebraic expression for a given situation, using up to three variables.	Expressions and Equations	6.EE2: Write, read, and evaluate expressions in which letters stand for numbers.	Solve problems manually by using the correct order of operations or by using a scientific calculator.	Expressions and Equations	6 EE.2: Write, read, and evaluate expressions in which letters stand for numbers.
		6.EE2a: Write expressions that record operations with numbers and with letters standing for numbers.			6.EE.2a: Write expressions that record operations with numbers and with letters standing for numbers.
		6.EE2b: Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity.			6.EE.2b: Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity.
		6.EE.2c: Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-word problems. Perform arithmetic operations, including those			6.EE.2c: Évaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-word problems. Perform arithmetic operations, including those
	-	involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).			involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
1.3 Apply algebraic order of operations and the commutative, associative, and distributive properties to evaluate expressions; and justify	Expressions and Equations	6.EE.1: Write and evaluate numerical expressions involving whole-number exponents.			6.EE.3: Apply the properties of operations to generate equivalent expressions.
each step in the process.		6.EE.2: Write, read, and evaluate expressions in which letters stand for numbers.	 Students analyze and use tables, graphs, and rules to solve problems involving rates and proportions. 	Ratio and Proportional Relationships	6.RP. (Cluster statement) Understand ratio concepts and use ration reasoning to solve problems.
		6.EE.2a: Write expressions that record operations with numbers and with letters standing for numbers. 6.EE.2b: Identify parts of an			6.RP.3: Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams,
		expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a			double number line diagrams, or equations. 6.RP.3a: Make tables of equivalent ratios relating
		single entity. 6.EE.2c: Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-word problems. Perform arithmetic			quantities with whole number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
		operations, including those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).			6.RP.3b: Solve unit rate problems including those involving unit pricing and constant speed. 6.RP.3c: Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity) solve problems involving finding the whole, given
		6.EE.3: Apply properties of operations to generate equivalent expression. 6.EE.4: Identify when two			a part and the percent. 6.RP.3d: Use ratio reasoning of a quantity to convert measurement
		expressions are equivalent (i.e., when the two expression name the same number regardless of which value is substituted into them.)			units; manipulate and transform units appropriately when multiplying or dividing quantities.
	Mathematical Practices	6.MP: Construct valid arguments and critique the reasoning of others			

Increased Depth – 6th Grade Standards

6.EE.2: Write expressions that record operations with numbers and with letters standing for numbers. 6.EE.2.D: Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. 6.EE.2: Evaluate expressions at specific values of their variables. Include expressions that arise form formulas used in real-word problems. Perform arithmetic operations, including those involving which ember are no parentheses to specify a particular order (Order of Operations). 6.EE.2: Write expressions that record operations with numbers and with letters standing for numbers. 6.EE.2: Write expressions shat record operations with numbers and with letters standing for numbers. 6.EE.2: Letters and the expressions standing for numbers. 6.EE.2: Letters and the expression standing for numbers. 6.EE.2: Letters and with letters standing for numbers. 6.EE.2: Letters and with lett	1999	1	CC		1	СС	1999	1	CC	1999		СС
	expression for a given situation, using up to three variables. 13 Apply algebraic order of operations and the commutative, associative, and distributive properties to evaluate expressions; and justify	Expressions and Equations	evaluate expressions in which letters stand for numbers. 6.E.E2a: Write expressions that record operations with numbers and with letters standing for numbers. 6.E.E2a: United by a standard standa	the correct order of operations or by using a scientific calculator. 2.0 Students analyze and use tables, graphs, and rules to solve problems	Equations Ratio and Proportional	expressions in which letters stand for numbers. 6.EE.2a. Write expressions that record operations with numbers and with letters standing for numbers. 6.EE.2b. Identify parts of an expression using nathematical terms (sum, term, product, factor, quotient, coefficient), view one or more parts of an expression as a single entity. 6.EE.2b. Evaluate expressions as a single entity. 6.EE.2c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-word problems. Perform arithmetic operations, including those involving whole number involving whole number of the properties of the properties of operations. 6.EE.3c. Evaluate expressions at a specific values of their values of their variables. Include expressions. 6.EP.3c. Evaluate expressions. 6.EP.3c. Evaluate expressions. 6.EP.3c. Evaluate and the resonance of the variables of equivalent ratios, tape diagrams, double number line diagrams, or equations. 6.EP.3c. Evaluate and the evaluation of the values in the tables and plot the pairs of values on the coordinate plane. Use tables to compare allows. 6.EP.3c. Find a percent of a quantities with the ables and plot the pairs of values on the coordinate plane. Use tables to compare allows. 6.EP.3c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity was a rate per 100 (e.g., 30% of a quantity was not appeared to the pairs of values and potenties and concerned and part and the percent.	expression for a given situation, using up to three variables. 1.3 Apply algebraic order of operations and the commutative, associative, and distributive properties to evaluate expressions; and justify	Expressions and Equations	evaluate expressions in which letters stand for numbers. 6.E.E2a: Write expressions that record operations with numbers and with letters standing for numbers. 6.E.E2a: Write expressions that record operations with numbers and with letters standing for numbers. 6.E.E.2a: Evaluate expressions at specific values of their variables. Include expressions that arise fundamental terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. 6.E.E.2a: Evaluate expressions at specific values of their variables. Include expressions that arise fundamental condenses of their variables. Include expressions that arise fundamental expressions in which letters stand for numbers. 6.E.E.1a: Write and evaluate numerical expressions in which letters stand for numbers. 6.E.E.2a: Write, read, and evaluate expressions in which letters stand for numbers. 6.E.E.2b: Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient), view one or more parts of an expression as a single entity. 6.E.E.2b: Evaluate expressions as a single entity. 6.E.E.2b: Evaluate expression as a single entity of their variables. Include expressions that arise from formulas used in real-word problems. Per form a rithmetic variables. Include expressions are equivalent expression as a farticular order (Order of Operations). 6.E.E.3: Apply properties of operations to generate equivalent expressions are equivalent (e.e., when the two expressions name the same number regardless of which with the sime number regardless of which with when two expressions are equivalent (e.e., when the two expressions name the same number regardless of which with when two expressions are equivalent (e.e., when the two expressions and erritudal order of order and expressions and entitled the them). 6.M.P. Construct valid arguments	the correct order of operations or by using a scientific calculator. 2.0 Students analyze and use tables, graphs, and rules to solve problems	Equations Ratio and Proportional	expressions in which letters stand for numbers. 6 EE 2a: Write expressions that record operations with numbers and with letters standing for numbers. 6 EE 2b: Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient), view one or more parts of an expression as a single entity. 6 EE 2b: Chemity parts of an expression as a single entity. 6 EE 2c: Evaluate expressions as a single entity. 6 EE 2c: Evaluate expressions as a single entity. 6 Include expressions that arise from formulas used in real-word problems. Perform arithmetic operations, including those expressions that arise from formulas used in real-word problems. Perform arithmetic operations, including those expressions. 6 EE 3: Apply the properties of operations to generate equivalent expressions. 6 EP 3: Certal and rate reasoning to solve problems. 6 EP 3: Certal and rate reasoning to solve problems. 6 EP 3: Certal and rate reasoning to solve problems. 6 EP 3: Certal and rate reasoning to solve problems. 6 EP 3: When the solve the solve the solve problems of equivalent ratios, tape diagrams, double number line diagrams, of equivalent ratios, tape diagrams, double number line diagrams, of equivalent ratios, tape diagrams, double number line diagrams, of equivalent ratios, tape diagrams, double number line diagrams, or equations. 6 EP 3b: Solve unit rate problems including those involving unit ricing and constant speed. 6 EP 3c: Find a percent of a quantity so are problems including those involving unit ricing and constant speed. 6 EP 3d: Use ratio reasoning of a quantity was an at per 100 (e.g., 30% of a quantity was an at per 100 (e.g., 30% of a quantity was an at per 100 (e.g., 30% of a quantity was an at per 100 (e.g., 30% of a quantity was an at per 100 (e.g., 30% of a quantity was an at per 100 (e.g., 30% of a quantity was an at per 100 (e.g., 30% of a quantity was an at per 100 (e.g., 30% of a quantity was an at per 100 (e.g., 30% of a quantity was an at per 100 (e.g., 30% of a quanti

Standards of Mathematical Practice

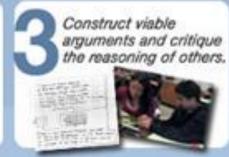
 The second layer of increased depth comes with a skill-based curriculum

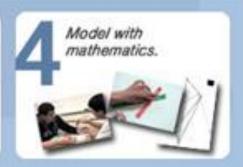
 Students will be expected to apply mathematical content to real world situations using real world tools

Standards of Mathematical Practice

















How could teachers help teach these skills?

In your table groups, identify two possible instructional shifts for each of these standards. They can be general, or specific.

Choose a spokesperson, and we'll do a share-out in two songs!

Committee Responses 1-4

(not part of original presentation)

- 1. Make sense of problems and persevere in solving them.
 - Spend time on the concept
 - Teach students to persevere they often either get stuck or just want a quick answer
 - Teach students to no just guess when they get frustrated
 - Have students share answers to the problem and discuss them
- 2. Reason abstractly and quantitatively.
 - Understand origin of formula along with memorization of formula
 - Use manipulatives
- 3. Construct viable arguments and critique the reasoning of others
 - Share out answers and discuss
 - Use social media to have students comment
 - It's difficult for small children to argue their side
 - Discuss why two correct answers can exist and examine each other's work
- 4. Model with mathematics
 - Real life application
 - Answer "why do we do this?"
 - Use manipulatives

Committee Responses 5-8

(not part of original presentation)

- 5. Use appropriate tools strategically.
 - Use manipulatives in groups
 - Rulers, measuring tape, measuring cups/spoons
 - Technology Tools (iPad, scientific calculator)
 - Use estimation
 - Teaching tools teachers use tools as well
- 6. Attend to precision.
 - Use correct language
 - Give complete and concise answers with correct labels
 - Use appropriate academic vocabulary to communicate thought process
- 7. Look for and make use of structure.
 - Notice patterns and structure
 - Notice relationships
- 8. Look for and express regularity in repeated reasoning.
 - Recognize repetition in solutions and explain the patterns
 - Develop shortcuts

Identify Necessary Instructional Shifts

The Common Core will demand a very different pedagogy for our students to perform well

Common Core Foci

- Process and Reasoning
- Argument and Explanation
- Modeling and Tools

Standards Check

 Watch the following lessons involving the laws of quadrilaterals.

• Give each lesson a grade, from A through F, for how well it addresses each of the Mathematical Standards of Practice.

Group Check

Discuss with your group – how well did this lesson address each of the Mathematical Standards of Practice?

We'll do a whip-around for each standard after two songs play, so make sure to select a spokesperson!

Standards Check - Continued

 https://www.teachingchannel.org/videos/ geometry-lesson-quadrilaterals

Follow the same process with this lesson – how well does it address each of these standards?

Group Check

Discuss with your group – how well did this lesson address each of the Mathematical Standards of Practice?

We'll do a whip-around for each standard after two songs play, so make sure to select a spokesperson!

Elementary and Secondary Roles

Elementary

 Research Smarter Balanced math assessments and create grade level elementary assessments.

Secondary

- Research Integrated and Traditional secondary math pathways, as well as accelerated pathways.
- Make recommendation to the District on which pathways to use.

Whole Committee Decision

Math Technology Recommendation

Which technology tools fit these proposed instructional and assessment shifts best?

Expand Current Labs?



Expand ActivBoard and Student Response System?



Expand or Adopt Student Devices?



Common Core Math Transition Plan

 All the recommendations this Committee makes will be included in this document

The goal is to make this a clear, focused, and actionable document that can guide the future of math in SGUSD.

Thanks For All Your Work!

- We will meet again after LACOE trainings.
 - JMS: Oct. 8, 9, 18
 - GHS: Nov. 7, 8, 15
 - K-2: Jan. 13, 14, 24
 - 3-5: Feb. 4, 5, 24
- I will e-mail a link to this PowerPoint and handouts to all of you. They will all be posted on the SGUSD Digital Community website.
- Please do your best to keep your departments, grade levels, and sites informed!

Any Final Comments or Questions?