Swun Math Program Overview

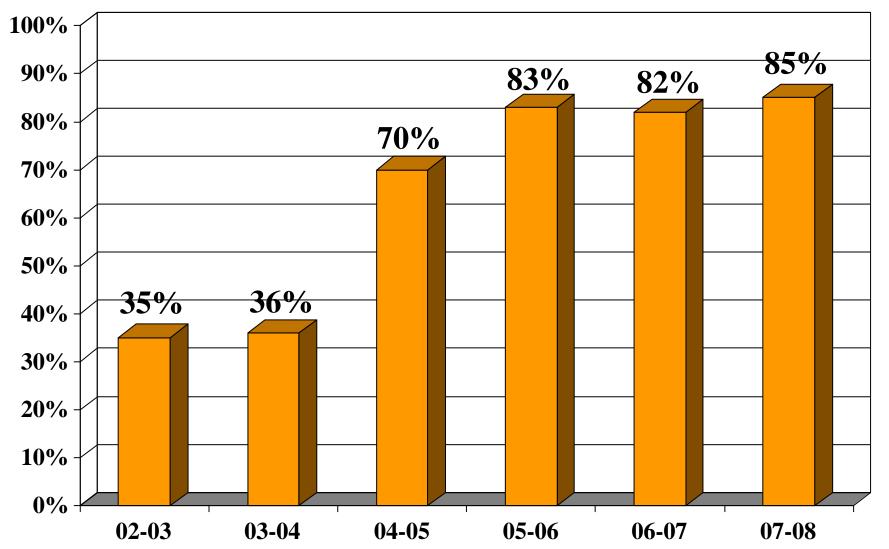
A highly-effective and coherent math model with alignment in standards, curriculum, assessments, professional development and accountability measures.

Swun Math Pilot School

"Edison Elementary"

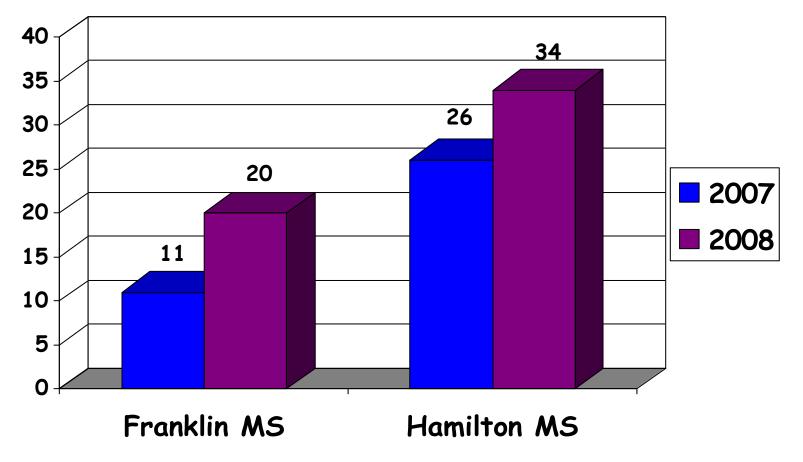
Subgroups	Edison	
	Elementary	
African American	10%	
Latino	87%	
Other	er 3%	
Low SES	100%	

Edison Elementary %Proficient and Advanced Proficient on the California Standards Test



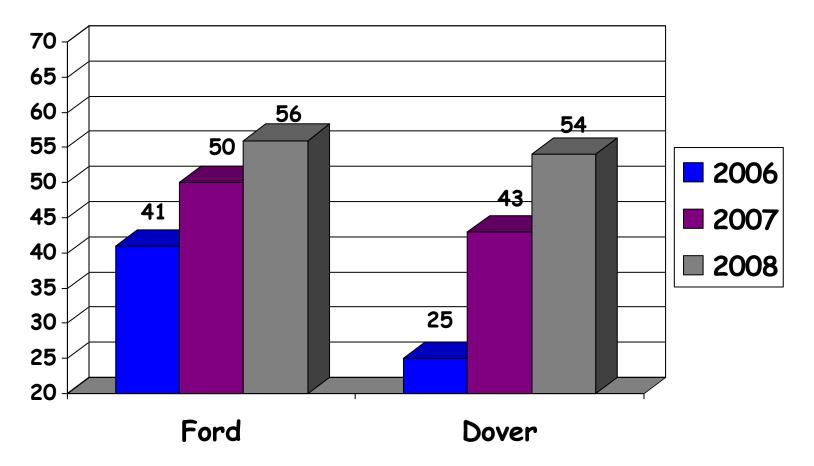
Long Beach Unified School District CST Math 2007-2008

Percent of School Proficient and Advanced Proficient in Math



West Contra Costa Unified School District CST Math 2006-2008

Percent of School Proficient and Advanced Proficient in Math



Oakland Unified School District CST Math 2006-2008

Percent of School Proficient and Advanced Proficient in Math

Markham Acorn **Bellavista Brookfield** Hoover Horace Mann Lafayette Lakeview

What is Swun Math?

Content Standards Instruction (1-hour per

day)

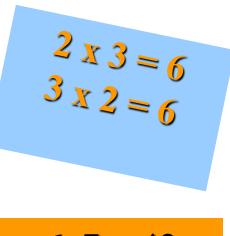
- Innovative Lesson Delivery and Structure (Swun-Math Lesson Design)
- Mastery of Content
- Alignment of Instructional Strategies

Basic Facts Instruction "Beyond the Basic Facts" (30 minutes a day)

- Focuses on Automaticity (Memorization)
- Accuracy
- Computational Skills

Swun Math Basic Facts Instruction "Beyond the Basic Facts"

- ABC's of Math
- Taught using the commutative property for addition and multiplication
- 2-3 Facts introduced per day (14 Lessons)
- Lays down the foundation for Algebra



6x7 = 427x6 = 42

"Beyond the Basic Facts" Multiplication Diagonal

2x2=43x2=6 4x2=8 5x2=10 6x2=12 7x2=14 8x2=16 9x2=184x3=12 5x3=15 6x3=18 7x3=21 8x3=24 9x3=27 2x3=6 3x3=9 3x4=12 4x4=16 5x4=20 6x4=24 7x4=28 8x4=32 9x4=36 2x4=8 2x5=10 3x5=15 4x5=20 5x5=25 6x5=30 7x5=35 8x5=40 9x5=45 2x6=12 3x6=18 4x6=24 5x6=30 6x6=36 7x6=42 8x6=48 9x6=542x7=14 3x7=21 4x7=28 5x7=35 6x7=42 7x7=49 8x7=56 9x7=63 9x8=72 2x8=16 3x8=24 4x8=32 5x8=40 6x8=48 7x8=56 8x8=64 2x9=18 3x9=27 4x9=36 5x9=45 6x9=54 7x9=63 8x9=72 9x9=81

Swun Math Lesson Design

Swun Math Lesson Design 👫

oximate Tim	e Component Problem of the Day	Example (student journal) Teacher Student		
	1 st Trimester: Word Problems		<u>ettaent</u>	
8 min	2 nd /3 rd Trimester: Problem of the Day based on classroom data analysis			
	• Teacher models the first problem, thinking aloud step-by-step			
	• Student then solves a second parallel problem independently.			
	• Teacher calls on students to share out answers.			
	Lesson Opener:	Adding 2-Digit Numb	Adding 2-Digit Numbers	
3 min	Students write the following in their journals (optional for grade 2):	Objective: I will add 2-digit numbers with		
	Title (lesson content).	regrouping.		
	Student friendly objective.	Vocab:		
	Vocabulary: Use math examples when possible.	$5+4=9 \leftarrow sum$		
15 min	Input/Model	Ex #1	<u>Ex #2</u>	
	 Teacher models two problems, thinking aloud step-by-step. 			
	 Students watch and listen only. 	Input/Model is not written in student journals		
	Structured Guided Practice	<u>S.G.P.</u>		
	Teacher and students work out two problems together.	1.	2.	
	 Teacher uses active participation strategies to call on students for each step while 			
	students write in their journals.	CLICITI . "		
	Check for understanding	Check: for Understanding:		
	Teacher gives one problem for students to work on independently on their	3.		
	whiteboards. Teacher uses this opportunity to see if students are ready to move	5.		
	on to S.P.			
17 min	Student Practice	<u>S.P.</u>		
	Teacher assigns six problems and two challenge problems to the class. Teacher	1. 2.	3.	
	can use this time to pull students for small group instruction.			
	 Students work on problems independently, but may ask their table for help. 	4. 5.	6.	
	Reaching a Consensus	Challenge:	**	
	 Student leader reads off answers to S.P. while table agrees/disagrees on answers. 	7. 8.		
	Presentation			
15 min	• Teacher randomly calls on one student per table to present one of the six problems.			
	 Student explains the problem step by step to class. 			
	Closure		e thing you learned today."	
1 min	• Teacher elicits student responses on what their objective was for the day.	"Share with the class on	e thing you learned today.	
	 Students may share aloud or write it in their journal. 			
	Preview			
1 min	• Teacher models a problem from the next day's lesson without explanation.	62	7 – 249 =	
	• Students watch only.	1		

• Continuously spiral content to ensure mastery of all content standards

• Goal is to create a community of learners in the classroom

• Depth and complexity is attained during reaching consensus and presentation

Instructional Strategies

Let's Round Numbers!

Manhattan Beach Lifeguards reported to the Press Telegram that there were 2,857 people at the beach on Sunday. Round this to the nearest _____

- <u>Underline</u> the word that comes after "nearest".
- <u>Underline</u> the digit in the indicated place.
- G Circle the digit to the right of the <u>underlined</u> place.
- If the circled digit is 5 or greater, add one to the underlined place and change all digits to the right to zeros.
- If the circled digit is 4 or less, keep the underlined place and change all digits to the right to zeros.

- Instructional Strategies stay consistent from grade level to grade level
- Instructional strategies are student friendly.

Swun Math Pacing

2nd Grade Math Pacing Chart Oakland Unified School District 2008-2009

Important Notes:

- <u>Beyond the Basic Facts</u>- Memorization of the math facts and the application of these facts will be practiced everyday to facilitate mastery of units 1, 3 and 6. You will need to spend time modeling addition and subtraction with regrouping, during your 1-hour content lesson, to complete the "Application portion" of <u>Beyond the Basic Facts</u>.
- Aug. 27 Aug. 28
- Pre- Assessment
 - Administer Trimester One Practice Exam
 - "It's All About the Facts" Diagnostic
- Aug. 29 Mar. 7Use <u>Beyond the Basic Facts</u> to ensure the
memorization of addition and subtraction facts, as
well as addition and subtraction with regrouping
(N.S. 2.2)

Aug.29 - Sept. 28Numbers to 100 & 1000Instructional Days: 22Approx. days per lesson: 2.2

CA Standards: NS 1.0 Tens/Hundreds-pgs.45-46, 307-308 CA Standards: NS1.0 Tens and Ones/Hundred, Tens, Ones-pgs. 47-48, 309-310 CA Standards: NS 1.0 Understand Place Value-pgs. 49-50, 311-312 CA Standards: NS 1.1 Read and Write Numbers-pgs. 51-52, 313-314 CA Standards: NS 1.0, MR 2.1 100 Less, 100 More-pgs. 321-322 CA Standards: NS 1.3 Compare Numbers: >, <, or = -pgs. 61-62, 323-324 CA Standards: NS 1.0 Order Number: Before, After, Between-pgs. 63-64, 325-320 CA Standards: NS 1.0 Order Numbers on a Number Line-pgs. 327-328 CA Standards: MR 1.2 MR 3.0 Even and Odd-pgs. 65-66 CA Standards: MR 3.0 Skip-Count-pgs. 67-68

Oct. 1 – Oct. 26 Addition Addition is integrated throughout this section. (Beyond the Basic Facts) Instructional Days: 20 Approx. days per lesson: 2.9

CA Standards: AF 1.1 Add 3 Numbers-pgs.11-12 CA Standards: NS 2.1 Missing Numbers-pgs. 35-36 CA Standards: AF 1.0 Problem Solving-pgs. 39-40 CA Standards: NS 2.2 Add 2-Digit Numbers-pgs. 171-172 CA Standards: NS 2.2 Rewrite 2-Digit Addition 175-176 CA Standards: NS 2.2 Add 3-Digit Numbers-pgs. 373-374 CA Standards: NS 5.1 Add Money-pgs. 377-378

- Order of the textbook lessons are changed to ensure mastery of content
- Natural progression of learning for students
- Specific to California Content Standards
- Paced so that all content is taught two weeks prior to the CST

Swun Math Assessment Tools Accountability for Students

Facts Component

- Pre/Post diagnostic assessments
- Application Assessments
- Math Facts Assessment

• 1-Hour Content Component

- Trimester pre-post exams (item analysis grid/test specs)
- Unit Assessments (grade level specific)

Swun Math Monthly Support

- Comprehensive Trimester Trainings (3)
 - Lesson Design
 - Beyond the Basic Facts
 - Instructional Strategies
- Blueprint Training
- Monthly On-site Support
 - Monthly Demo Lessons
 - Team Teaching
 - Grade Level/ Staff Meetings
 - Principal/Administrative Support

Swun Math Team

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