



MAP²D Pacing Guide

Description: The MAP²D Pacing Guide was created to help teachers address the California Mathematics Standards for the grade level. This is a suggested pacing. Teachers may spend more or less time on each lesson, depending on their students' needs. However, the trimester exams need to be given within a week of the scheduled dates.

Key Standards: The standards are sequenced to be taught before the state test. The following acronyms are used in this document:

NS: Number Sense

AF: Algebra and Functions

MG: Measurement and Geometry

SDAP: Statistics, Data Analysis and Probability

Assessments: The guide also indicates an approximate date when a Standards Based Assessment may be given. Teachers may give the Standards Based Assessments at any time during the current trimester based on student readiness. A “window of time” is given for the administration of the trimester exams.

Resources: Page numbers of the student text and student resource books (3 in 1 Practice Book and Success with the Math Standards) are listed for easy planning. Lessons with Instructional Strategy slides to be referenced are indicated with an asterisk (*).

Grade 5 MAP²D Pacing Traditional Schedule 2009 – 2010

TRIMESTER 1 (September 9 – November 20)

Problem of the Day: Word Problems using MAP²D Strategy (UPS: Understand – Plan - Solve)

September 9-11	Pre- Assessments:
	❖ Administer Trimester One Practice Exam
	❖ Give “It’s All About the Facts” Diagnostics

Sept. 14 – Oct. 2	Chapter 1, 2, 11 and 14	Place Value/Addition & Subtraction
Instructional Days: 14	Number of Lessons: 9	(On-going math facts review)

CA Standards	Lesson #'s	Content	Page Numbers	3 in 1 Practice Book
NS 1.1	1.1	Place Value Through Billions	Pgs. 4-10	RW 1 PW 1
NS 1.1	2.1, 2.2	*Decimal Place Value	Pgs. 38-41	RW 9/10 PW 9/10
NS 1.5	2.5	Compare and Order Decimals	Pgs. 46-47	RW 13 PW 13
NS 1.1	1.3	*Round Whole Numbers	Pgs. 12-13	RW 3 PW 3
NS 1.1	11.1	*Round Decimals	Pgs. 272-273	RW 67 PW 67
NS 2.1	11.2	*Add and Subtract Decimals	Pgs. 274-276	RW 68 PW 68
AF 1.2	1.7	Addition and Subtraction Expressions (Order of Operations, Use Instructional Slides)	Pgs. 22-24	RW 7 PW 7
AF 1.2	14.3	Write Equations (Add and Subt. Only)	Pgs. 352-353	RW 88 PW 88
AF 1.2	14.4	*Solve Equations (Add and Subt. Only)	Pgs. 354-355	RW 89 PW 89

Give Standards Based Assessment #1: NS/AF: Place Value/Addition and Subtraction

October 5 - 23	Chapters 4 and 12-14	Multiplication & Division/Algebra
Instructional Days: 15	Number of Lessons: 12	(On-going math facts review)

CA Standards	Lesson #'s	Content	Page Numbers	3 in 1 Practice Book
NS 2.1	12.5	*Place the Decimal Point	Pgs. 300-302	RW 76 PW 76
NS 2.1	12.6	*Zeros in the Product	Pgs. 304-305	RW 77 PW 77

**Indicates MAP²D Instructional Strategies Available
Bold type indicates lesson used more than once*

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NS 2.2	4.2	Divide with 1-Digit Divisors	Pgs. 88-90	RW 23 PW 23
NS 2.2	4.5	*Divide by 2-Digit Divisors	Pgs. 96-98	RW 26 PW 26
NS 2.2	13.3	*Divide Decimals by Whole Numbers	Pgs. 320-322	RW 81 PW 81
NS 2.1	13.6	*Division of Decimals by Decimals	Pgs. 328-330	RW 84 PW 84
AF 1.2	4.9	Multiplication & Division Expressions	Pgs. 106-107	RW 30 PW 30
AF 1.2	14.1	Write Expressions	Pgs. 346-347	RW 86 PW 86
AF 1.2	14.2	*Evaluate Expressions (Order of Operations)	Pgs. 348-350	RW 87 PW 87
AF 1.2	14.3	Write Equations (Mult. And Div. Only)	Pgs. 352-353	RW 88 PW 88
AF 1.2	14.4	*Solve Equations (Mult. And Div. Only)	Pgs. 354-356	RW 89 PW 89
AF 1.3	14.5	*Use the Distributive Property	Pgs. 358-359	RW 90 PW 89

Give Standards Based Assessment #2: NS/AF: Multiplication and Division/Algebra

October 26 - November 20	Chapters 5-9	Fractions – Addition and Subtraction
Instructional Days: 19	Number of Lessons: 13	(On-going math facts review)

Readminister Trimester One Practice Exam Week of November 2

CA Standards	Lesson #'s	Content	Page Numbers	3 in 1 Practice Book
NS 1.3	5.4	Exponents and Square Numbers	Pgs. 128-130	RW 34 PW 34
NS 1.4	5.5	*Prime Factorization	Pgs. 132-134	RW 35 PW 35
NS 1.5	6.1	*Equivalent Fractions	Pgs. 144-145	RW 36 PW 3
NS 2.3	6.2	*Simplest Form	Pgs. 146-148	RW 37 PW 37
NS 1.5	6.3	*Understand Mixed Numbers	Pgs. 150-151	RW 38 PW 38
NS 1.2	6.6	*Relate Fractions and Decimals	Pgs. 160-161	RW 41 PW 41
NS 1.5	6.7	*Use a Number Line	Pgs. 162-163	RW 42 PW 42
NS 2.3	7.2 & 7.3	*Add and Subtract Like Fractions & Mixed Numbers	Pgs. 178-183	RW 44 PW 44 RW 45 PW 45
NS 2.3	7.4	*Subtraction with Renaming (Like Denom.)	Pgs. 184-185	RW 46 PW 46
NS 2.3	8.4	*Use Common Denominators	Pgs. 204-206	RW 51 PW 51
NS 2.3	8.5	*Add and Subtract Fractions	Pgs. 208-209	RW 52 PW 52
NS 2.3	9.3	Record Addition and Subtraction	Pgs. 224-225	RW 56 PW 56
NS 2.3	9.4	*Subtraction with Renaming (Unlike Denom.)	Pgs. 226-227	RW 57 PW 57

*Give Standards Based Assessment #3: NS: Fractions – Addition and Subtraction
November 19-20: Review and Administer 1st Trimester Exam (20 items)*

*Indicates MAP²D Instructional Strategies Available
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TRIMESTER TWO (November 23 – March 5)

Problem of the Day: Review of Tri 1 Content (Use Item Analysis Grid to guide review)

Administer Trimester Two Practice Exam

November 23 – December 18	Chapter 10	Multiply and Divide Fractions
Instructional Days: 17	Number of Lessons: 6	(On-going math facts review)

CA Standards	Lesson #'s	Content	Page Numbers	3 in 1 Practice Book
NS 2.4, 2.5	10.2	*Record Multiplication of Fractions	Pgs. 240-241	RW 60 PW 60
NS 2.4, 2.5	10.3	*Multiply Fractions and Whole Numbers	Pgs. 242-243	RW 61 PW 61
NS 2.4, 2.5	10.4	*Multiply with Mixed Numbers	Pgs. 244-246	RW 62 PW 62
NS 2.4, 2.5	10.5	Model Fraction Division	Pgs. 248-249	RW 63 PW 63
NS 2.4, 2.5	10.6	*Divide Whole Numbers by Fractions	Pgs. 250-252	RW 64 PW 64
NS 2.4, 2.5	10.7	*Divide Fractions	Pgs. 254-256	RW 65 PW 65

Give Multiply and Divide Fractions Quiz (Located on Intranet “Instructional Tools” – Quizzes)

December 21 – January 1 Winter Recess

Jan. 4 – Jan. 15	Chapter 16	Percent
Instructional Days: 10	Number of Lessons: 4	(On-going math facts review)

CA Standards	Lesson #'s	Content	Page Numbers	3 in 1 Practice Book
NS 1.2	16.2	*Fractions, Decimals, and Percents	Pgs. 406-408	RW 101 PW 101
NS 1.5	16.3	Use a Number Line	Pgs. 410-411	RW 102 PW 102
NS 1.2	16.5	*Percent Problems	Pgs. 414-416	RW 104 PW 104
SDAP 1.3	16.7	Compare Data Sets	Pgs. 422-423	RW 106 PW 106

Give Standards Based Assessment #4: NS: Percents and Fractions

January 19 – February 17	Chapters 17 – 18	Measurement and Geometry
Instructional Days:	Number of Lessons: 14	(On-going math facts review)

**Indicates MAP²D Instructional Strategies Available
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CA Standards	Lesson #'s	Content	Page Numbers	3 in 1 Practice Book
MG 2.1	17.1	Points, Lines, and Angles	Pgs. 436-437	RW 107 PW 107
MG 2.1	17.2	Measure and Draw Angles	Pgs. 440 – 442	RW 108 PW 108
MG 2.2	17.5	*Sum of the Angles	Pgs. 448-449	RW 111 PW 111
MG 2.2	18.1	*Triangles (Find the Unknown Angle)	Pgs. 468-471	RW 116 PW 116
MG 2.2	18.2	*Quadrilaterals (Find the Unknown Angle)	Pgs. 472-474	RW 117 PW 117
MG 2.3	18.4	Solid Figures	Pgs. 478-480	RW 119 PW 119

Give Standards Based Assessment #5: MG: Measurement and Geometry #'s 1-10 ONLY!

MG 1.4	20.3	*Find Perimeter	Pgs. 530-531	RW 131 PW 131
MG 1.4	20.4	*Perimeter Formulas	Pgs. 532-533	RW 132 PW 132
MG 1.4	21.2	*Area of Rectangles	Pgs. 548-550	RW 136 PW 136
MG 1.1	21.7	*Area of Parallelograms	Pgs. 562-564	RW 141 PW 141
MG 1.1	21.6	*Area of Triangles	Pgs. 560-561	RW 140 PW 140
MG 1.2	22.1	*Surface Area	Pgs. 574-575	RW 142 PW 142
MG 1.3	22.3	*Find Volume	Pgs. 578-579	RW 144 PW 144

***Give Standards Based Assessment #5: MG: Measurement and Geometry #'s 11 – 20 ONLY!
Readminister Trimester Two Practice Exam Week of February 16***

February 18 – March 5	Chapter 15	Algebra: Integers
Instructional Days: 11	Number of Lessons: 6	(On-going math facts review)

CA Standards	Lesson #'s	Content	Page Numbers	3 in 1 Practice Book
NS 1.5	15.1	*Understand Integers	Pgs. 376-378	RW 93 PW 93
NS 1.5	15.2	*Compare and Order Integers	Pgs. 380-382	RW 94 PW 94
NS 2.1	15.3	*Model Integer Addition	Pgs. 384-385	RW 95 PW 95
NS 2.1	15.4	*Record Integer Addition	Pgs. 386-387	RW 96 PW 96
NS 1.5	15.5	*Model Integer Subtraction	Pgs. 388-389	RW 97 PW 97
NS 2.1	15.6	*Record Integer Subtraction	Pgs. 390-393	RW 98 PW 98

Give Standards Based Assessment #6: NS: Integers

March 3- 5 Review and Administer 2nd Trimester Exam (25 items)

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TRIMESTER THREE (March 8 – May 28)

Problem of the Day: Review of Tri 1 and Tri 2 Content (Use Item Analysis Grid to guide review)

March 8 – 19	Chapter 19	Geometry and the Coordinate Plane
Instructional Days: 9	Number of Lessons: 8	(On-going math facts review)

CA Standards	Lesson #'s	Content	Page Numbers	3 in 1 Practice Book
SDAP 1.5	19.1	Graph Ordered Pairs	Pgs. 498 - 499	RW 123 PW 123
AF 1.4	19.3	Graph Integers on the Coordinate Plane	Pgs. 502-503	RW 125 PW 125
AF 1.5	19.4	*Linear Functions (Multiply & Divide Integers, Use Instructional Strategies)	Pgs. 504-505	RW 126 PW 126
AF 1.5	19.5	*Write and Graph Equations	Pgs. 506-508	RW 127 PW 127
AF 1.2	1.7	Addition and Subtraction Expressions	Pgs. 22-24	RW 7 PW 7
AF 1.2	4.9	*Multiplication & Division Expressions	Pgs. 106-107	RW 30 PW 30
AF 1.2	14.2	*Evaluate Expressions (Order of Operations)	Pgs. 348-350	RW 87 PW 87
AF 1.3	14.5	*Use the Distributive Property	Pg. 358-359	RW 90 PW 90

Give Standards Based Assessment #7: AF: Coordinate Plane and Algebra Review

March 22 – April 2	Chapters 23-24	Analyze Data
Instructional Days: 9	Number of Lessons: 6	(On-going math facts review)

CA Standards	Lesson #'s	Content	Page Numbers	3 in 1 Practice Book
SDAP 1.1	23.2	*Find the Mean	Pgs. 602-603	RW 148 PW 148
SDAP 1.1	23.3	*Find the Median and Mode	Pgs. 604-605	RW 149 PW 149
SDAP 1.2	24.1	Make Histograms	Pgs. 624-625	RW 153 PW 153
SDAP 1.4	24.3	Make Line Graphs	Pgs. 628-630	RW 155 PW 155
AF 1.1	23.5	Analyze Graphs	Pgs. 608-610	RW 151 PW 151
SDAP	24	Enrich/Review	Pgs. 641-643	

Give Standards Based Assessment #8: SDAP: Analyze Data

April 5 – 9 Spring Recess

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April 12 - 23	Chapters 8 - 9	Fraction Review
Instructional Days: 10	Number of Lessons: 5	(On-going math facts review)

CA Standards	Lesson #'s	Content	Page Numbers	3 in 1 Practice Book
NS 2.3	6.2	*Simplest Form	Pgs. 146-148	RW 37 PW 37
NS 2.3	8.5	*Add and Subtract Fractions	Pgs. 208-209	RW 52 PW 52
NS 2.3	9.3	*Record Addition and Subtraction	Pgs. 224-225	RW 56 PW 56
NS 2.4, 2.5	10.2	*Record Multiplication of Fractions	Pgs. 240-241	RW 121 SR 34
NS 2.4, 2.5	10.6	*Divide Whole Numbers by Fractions	Pgs. 250-251	SR 10 SR 18
NS 2.4, 2.5	10.7	Divide Fractions	Pgs. 254-256	RW 65 PW 65

Give Standards Based Assessment #9: NS: Fraction Review

April 26 – May 14	Standards Review Week	3 in 1 Practice Book
Number Sense	Use Success with the Math Standards Pgs. 45 - 58	SR 1
Algebra and Functions	Use Success with the Math Standards Pgs. 65 - 72	SR 2
Measurement and Geometry	Use Success with the Math Standards Pgs. 73 - 84	SR 3
Statistics, Data Analysis, Probability	Use Success with the Math Standards Pgs. 93 - 96	SR 4

May 3 – 14 CST Testing

Readminister Trimester Three Practice Exam Week of May 17

May 17 – 28	Trimester Three Review	
Instructional Days: 8	Number of Lessons: 4	(On-going math facts review)

CA Standards	Lesson #'s	Content	Page Numbers	3 in 1 Practice Book
AF 1.4	19.3	Graph Integers on the Coordinate Plane	Pgs. 502-503	SR 5
AF 1.5	19.4	*Linear Functions	Pgs. 504-505	SR 7
AF 1.5	19.5	*Write and Graph Equations	Pgs. 506-508	SR 8
SDAP 1.1	23.2	*Find the Mean/Find the Median	Pgs. 602-603, 604-605	SR 9

May 26 - 28

Review and Administer 3rd Trimester Exam (30 items)

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June 1 – 16	Enrichment Lessons	Grade 6 Prep
Instructional Days: 14	Number of Lessons: 6	(On-going math facts review)

CA Standards	Lesson #'s	Content	Page Numbers	<u>3 in 1 Practice Book</u>
MG Gr. 6	17.7	*Circles	Pgs. 452-453	RW 113 PW 113
MG Gr. 6	No text	*Find the Circumference of a Circle	Use Instructional Strategy	
NS 2.1	15.3	*Adding Integers	Use District Integer Assessments	SR 15
NS 2.1	15.5	*Subtracting Integers		SR 11
NS 2.1	Instructional Strategies	*Multiplying Integers		SR 12
NS 2.1		*Dividing Integers		SR 13

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CALIFORNIA CONTENT STANDARDS: GRADE 5	# of Items on CST	Trimester and SBA
By the end of grade five, students increase their facility with the four basic arithmetic operations applied to fractions, decimals, and positive and negative numbers. They know and use common measuring units to determine length and area and know and use formulas to determine the volume of simple geometric figures. Students know the concept of angle measurement and use a protractor and compass to solve problems. They use grids, tables, graphs, and charts to record and analyze data.		
Number Sense	29	
Standard Set 1.0 Students compute with very large and very small numbers, positive integers, decimals, and fractions and understand the relationship between decimals, fractions, and percents. They understand the relative magnitudes of numbers:		
1.1* Estimate, round, and manipulate very large (e.g., millions) and very small (e.g., thousandths) numbers.	1	Tri 1 SBA 1
1.2* Interpret percents as a part of a hundred; find decimal and percent equivalents for common fractions and explain why they represent the same value; compute a given percent of a whole number.	5	Tri 1 SBA 3 Tri 2 SBA 4
1.3 Understand and compute positive integer powers of nonnegative integers; compute examples as repeated multiplication.	1	Tri 1 SBA 3
1.4* Determine the prime factors of all numbers through 50 and write the numbers as the product of their prime factors by using exponents to show multiples of a factor (e.g., $24 = 2 \times 2 \times 2 \times 3 = 2^3 \times 3$).	3	Tri 1 SBA 3
1.5* Identify and represent on a number line decimals, fractions, mixed numbers, and positive and negative integers.	2	Tri 1 SBA 1 Tri 1 SBA 3 Tri 2 SBA 4 Tri 2 SBA 6
Standard Set 2.0 Students perform calculations and solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals:		
2.1* Add, subtract, multiply, and divide with decimals; add with negative integers; subtract positive integers from negative integers; and verify the reasonableness of the results.	7	Tri 1 SBA 2 Tri 2 SBA 6
2.2* Demonstrate proficiency with division, including division with positive decimals and long division with multidigit divisors.	3	Tri 1 SBA 1 Tri 1 SBA 2
2.3* Solve simple problems, including ones arising in concrete situations, involving the addition and subtraction of fractions and mixed numbers (like and unlike denominators of 20 or less), and express answers in the simplest form.	5	Tri 1 SBA 3 Tri 3 SBA 9
2.4* Understand the concept of multiplication and division of fractions.	1	Tri 2 SBA 4 Tri 3 SBA 9
2.5* Compute and perform simple multiplication and division of fractions and apply these procedures to solving problems.	1	Tri 2 SBA 4 Tri 3 SBA 9

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CALIFORNIA CONTENT STANDARDS: GRADE 5		# of Items on CST	Trimester and SBA
Algebra and Functions		17	
Standard Set 1.0 Students use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results:			
1.1	Use information taken from a graph or equation to answer questions about a problem situation.	1	Tri 3 SBA 8
1.2*	Use a letter to represent an unknown number; write and evaluate simple algebraic expressions in one variable by substitution.	6	Tri 1 SBA 1 Tri 1 SBA 2 Tri 3 SBA 7
1.3*	Know and use the distributive property in equations and expressions with variables.	1	Tri 1 SBA 2 Tri 3 SBA 7
1.4*	Identify and graph ordered pairs in the four quadrants of the coordinate plane.	4	Tri 3 SBA 7
1.5*	Solve problems involving linear functions with integer values; write the equation; and graph the resulting ordered pairs of integers on a grid.	5	Tri 3 SBA 7
Measurement and Geometry		15	
Standard Set 1.0 Students understand and compute the volumes and areas of simple objects:			
1.1*	Derive and use the formula for the area of a triangle and of a parallelogram by comparing it with the formula for the area of a rectangle (i.e., two of the same triangles make a parallelogram with twice the area; a parallelogram is compared with a rectangle of the same area by cutting and pasting a right triangle on the parallelogram).	2 1/2**	Tri 2 SBA 5
1.2*	Construct a cube and rectangular box from two-dimensional patterns and use these patterns to compute the surface area for these objects.	1/2**	Tri 2 SBA 5
1.3*	Understand the concept of volume and use the appropriate units in common measuring systems (i.e., cubic centimeter[cm ³], cubic meter[m ³], cubic inch[in ³], cubic yard[yd ³]) to compute the volume of rectangular solids.	3	Tri 2 SBA 5
1.4	Differentiate between and use appropriate units of measures for, two- and three- dimensional objects (i.e., find perimeter, area, volume).	1	Tri 2 SBA 5
Standard Set 2.0 Students identify, describe, and classify the properties of, and the relationships between, plane and solid geometric figures:			
2.1*	Measure, identify, and draw angles, perpendicular and parallel lines, rectangles, and triangles by using appropriate tools (e.g., straightedge, ruler, compass, protractor, drawing software).	3	Tri 2 SBA 5
2.2*	Know that the sum of the angles of any triangle is 180° and the sum of the angles of any quadrilateral is 360° and use this information to solve problems.	4	Tri 2 SBA 5
2.3	Visualize and draw two-dimensional views of three-dimensional objects made from rectangular solids.	1	Tri 2 SBA 5
Statistics, Data Analysis, and Probability		4	

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CALIFORNIA CONTENT STANDARDS: GRADE 5	# of Items on CST	Trimester and SBA
Standard Set 1.0 Students display, analyze, compare, and interpret different data sets, including data sets of different sizes:		
1.1* Know the concepts of mean, median, and mode; compute and compare simple examples to show that they may differ.	1/3**	Tri 3 SBA 8
1.2 Organize and display single-variable data in appropriate graphs and representations (e.g., histogram, circle graphs) and explain which types of graphs are appropriate for various data sets.	1/3**	Tri 3 SBA 8
1.3 Use fractions and percentages to compare data sets of different sizes.	1/3**	Tri 2 SBA 4
1.4* Identify ordered pairs of data from a graph and interpret the meaning of the data in terms of the situation depicted by the graph.	2 1/2**	Tri 3 SBA 8
1.5* Know how to write ordered pairs correctly; for example, (x, y).	1/2**	Tri 3 SBA 7
Mathematical Reasoning	Embedded	
Standard Set 1.0 Students make decisions about how to approach problems:		
1.1 Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, sequencing and prioritizing information, and observing patterns.	Embedded	
1.2 Determine when and how to break a problem into simpler parts.	Embedded	
Standard Set 2.0 Students use strategies, skills, and concepts in finding solutions:		
2.1 Use estimation to verify the reasonableness of calculated results.	Embedded	
2.2 Apply strategies and results from simpler problems to more complex problems.	Embedded	
2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.	Embedded	
2.4 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.	Embedded	
2.5 Indicate the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy.	Embedded	
2.6 Make precise calculations and check the validity of the results from the context of the problem.	Embedded	
Standard Set 3.0 Students move beyond a particular problem by generalizing to other situations:		
3.1 Evaluate the reasonableness of the solution in the context of the original situation.	Embedded	
3.2 Note the method of deriving the solution and demonstrate a conceptual understanding of the derivation by solving similar problems.	Embedded	
3.3 Develop generalizations of the results obtained and apply them in other circumstances.	Embedded	
GRADE 5 TOTAL	65	

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