

Appendix A: STAR CST Reporting Clusters

The tables in this appendix present the reporting clusters, the number of items in each reporting cluster, and the average percent correct for a sample of students statewide for the 2007 CSTs.

The last three columns of each table, labeled “All,” “Minimally Proficient,” and “Minimally Advanced,” provide the expected average percent correct scores on each cluster for a representative sample of the state’s students, as well as the average percent correct for a representative sample of the state’s students who scored at the lowest score for proficient and at the lowest score for advanced on the CSTs (that is, for proficient, a sample of students statewide who obtained a scale score of exactly 350 or the lowest reported scale score above 350; and for advanced, a sample of students statewide who scored at the lowest score for advanced).

Because the goal for the state is for all students to score at the proficient level or above, a useful benchmark for interpreting cluster scores is the performance on the cluster for students who scored between minimally proficient and minimally advanced on the total test. These average percent correct values provide information about the relative difficulty of different clusters, which is important to take into account when considering the performance of students in the school or district.

CSTs for English–Language Arts Reporting Clusters

CALIFORNIA ENGLISH–LANGUAGE ARTS STANDARDS TESTS					
Number of Questions for 2007 Reporting Clusters and the Average Percent Correct on Each Reporting Cluster					
Grade	Reporting Cluster	No. of Questions	Avg % Correct Statewide		
			All	Minimally Proficient	Minimally Advanced
Grade 2					
	Word Analysis and Vocabulary Development	22	68	73	88
	Reading Comprehension	15	62	67	84
	Literary Response and Analysis	6	65	69	88
	Written Conventions	14	65	71	91
	Writing Strategies	8	57	59	77
Grade 3					
	Word Analysis and Vocabulary Development	20	67	76	88
	Reading Comprehension	15	59	68	87
	Literary Response and Analysis	8	65	77	93
	Written Conventions	13	63	72	87
	Writing Strategies	9	57	68	85
Grade 4					
	Word Analysis and Vocabulary Development	18	69	73	85
	Reading Comprehension	15	61	62	80
	Literary Response and Analysis	9	64	67	83
	Written Conventions	18	60	62	76
	Writing Strategies	15	57	56	76
	Writing Applications	1 (8 points)	53	52	57
Grade 5					
	Word Analysis and Vocabulary Development	14	66	73	87
	Reading Comprehension	16	56	58	76
	Literary Response and Analysis	12	67	74	87
	Written Conventions	17	63	69	81
	Writing Strategies	16	55	57	77
Grade 6					
	Word Analysis and Vocabulary Development	13	63	69	84
	Reading Comprehension	17	54	57	74
	Literary Response and Analysis	12	58	63	78
	Written Conventions	16	62	68	81
	Writing Strategies	17	57	63	83

CALIFORNIA ENGLISH–LANGUAGE ARTS STANDARDS TESTS					
Number of Questions for 2007 Reporting Clusters and the Average Percent Correct on Each Reporting Cluster					
Grade	Reporting Cluster	No. of Questions	Avg % Correct Statewide		
			All	Minimally Proficient	Minimally Advanced
Grade 7					
	Word Analysis and Vocabulary Development	11	65	71	84
	Reading Comprehension	18	61	66	83
	Literary Response and Analysis	13	57	60	78
	Written Conventions	16	60	64	79
	Writing Strategies	17	59	64	82
	Writing Applications	1 (8 points)	67	67	78
Grade 8					
	Word Analysis and Vocabulary Development	9	67	73	85
	Reading Comprehension	18	64	70	84
	Literary Response and Analysis	15	60	65	82
	Written Conventions	16	60	66	79
	Writing Strategies	17	61	67	84
Grade 9					
	Word Analysis and Vocabulary Development	8	59	63	76
	Reading Comprehension	18	64	66	83
	Literary Response and Analysis	16	65	69	85
	Written Conventions	13	60	63	78
	Writing Strategies	20	54	54	71
Grade 10					
	Word Analysis and Vocabulary Development	8	65	74	85
	Reading Comprehension	18	59	69	84
	Literary Response and Analysis	16	58	65	81
	Written Conventions	13	64	73	83
	Writing Strategies	20	61	73	86
Grade 11					
	Word Analysis and Vocabulary Development	8	63	74	85
	Reading Comprehension	19	56	65	80
	Literary Response and Analysis	17	54	60	75
	Written Conventions	9	65	79	90
	Writing Strategies	22	62	75	87

CSTs for Mathematics Reporting Clusters

CALIFORNIA MATHEMATICS STANDARDS TESTS					
Number of Questions for 2007 Reporting Clusters and the Average Percent Correct on Each Reporting Cluster					
Grade/ Test	Reporting Cluster	No. of Questions	Avg % Correct Statewide		
			All	Minimally Proficient	Minimally Advanced
GRADE-LEVEL MATHEMATICS					
Grade 2					
	Place Value, Addition, and Subtraction	15	74	75	89
	Multiplication, Division, and Fractions	23	74	74	87
	Algebra and Functions	6	73	71	90
	Measurement and Geometry	14	76	77	88
	Statistics, Data Analysis, and Probability	7	71	69	83
Grade 3					
	Place Value, Fractions, and Decimals	16	74	75	88
	Addition, Subtraction, Multiplication, Division	16	70	69	87
	Algebra and Functions	12	72	72	89
	Measurement and Geometry	16	75	75	86
	Statistics, Data Analysis, and Probability	5	83	88	95
Grade 4					
	Decimals, Fractions, and Negative Numbers	17	74	75	87
	Operations and Factoring	14	71	72	89
	Algebra and Functions	18	76	79	91
	Measurement and Geometry	12	67	66	82
	Statistics, Data Analysis, and Probability	4	72	73	86
Grade 5					
	Estimation, Percents, and Factoring	12	61	60	84
	Operations with Fractions and Decimals	17	61	63	83
	Algebra and Functions	17	65	69	87
	Measurement and Geometry	15	60	61	81
	Statistics, Data Analysis, and Probability	4	74	79	95
Grade 6					
	Ratios, Proportions, Percentages, Negative Fractions	15	57	60	84
	Operations and Problem Solving with Fractions	10	65	70	89
	Algebra and Functions	19	67	74	89
	Measurement and Geometry	10	53	55	80
	Statistics, Data Analysis, and Probability	11	53	57	78

CALIFORNIA MATHEMATICS STANDARDS TESTS					
Number of Questions for 2007 Reporting Clusters and the Average Percent Correct on Each Reporting Cluster					
Grade/ Test	Reporting Cluster	No. of Questions	Avg % Correct Statewide		
			All	Minimally Proficient	Minimally Advanced
Grade 7					
	Rational Numbers	14	58	65	85
	Exponents, Powers, and Roots	8	50	54	77
	Quantitative Relationships and Evaluating Expressions	10	63	71	83
	Multistep Problems, Graphing, and Functions	15	52	58	77
	Measurement and Geometry	13	57	63	83
	Statistics, Data Analysis, and Probability	5	61	71	86
END-OF-COURSE MATHEMATICS					
General Math					
	Rational Numbers	14	49	63	84
	Exponents, Powers, and Roots	10	42	55	82
	Quantitative Relationships and Evaluating Expressions	11	55	70	83
	Multistep Problems, Graphing, and Functions	10	48	64	83
	Measurement and Geometry	11	42	57	75
	Statistics, Data Analysis, and Probability	9	54	71	81
Algebra I					
	Number Properties, Operations, and Linear Equations	17	54	73	87
	Graphing and Systems of Linear Equations	14	44	59	83
	Quadratics and Polynomials	21	44	55	79
	Functions and Rational Expressions	13	37	45	70
Geometry					
	Logic and Geometric Proofs	23	58	73	90
	Volume and Area Formulas	11	51	66	86
	Angle Relationships, Constructions, and Lines	16	48	62	84
	Trigonometry	15	52	67	84
Algebra II					
	Polynomials and Rational Expressions	19	60	74	90
	Quadratics, Conics, and Complex Numbers	17	50	59	80
	Exponents and Logarithms	15	52	65	82
	Series, Combinatorics, Probability and Statistics	14	44	52	71
Summative High School Math					
	Algebra I	18	73	78	91
	Geometry	19	69	72	88
	Algebra II	23	70	74	90
	Probability and Statistics	5	62	64	81

CALIFORNIA MATHEMATICS STANDARDS TESTS					
Number of Questions for 2007 Reporting Clusters and the Average Percent Correct on Each Reporting Cluster					
Grade/ Test	Reporting Cluster	No. of Questions	Avg % Correct Statewide		
			All	Minimally Proficient	Minimally Advanced
Integrated Math 1					
	Number Properties, Operations, and Linear Equations	15	49	72	87
	Graphing	9	41	64	84
	Quadratics and Polynomials	14	38	61	81
	Functions and Rational Expressions	7	36	60	81
	Geometry	20	31	54	77
Integrated Math 2					
	Algebra I	20	39	66	84
	Logic and Geometric Proofs	22	40	67	85
	Angle Relationships, Constructions, and Lines	8	36	64	84
	Trigonometry	10	39	67	85
	Algebra II/Probability and Statistics	5	36	63	83
Integrated Math 3					
	Geometry	5	43	69	85
	Polynomials and Rational Expressions	19	42	65	84
	Quadratics, Conics, and Complex Numbers	17	40	64	82
	Exponents and Logarithms	15	41	67	85
	Series, Combinatorics, Probability and Statistics	9	30	53	75

CSTs for Science Reporting Clusters

CALIFORNIA SCIENCE STANDARDS TESTS					
Number of Questions for 2007 Reporting Clusters and the Average Percent Correct on Each Reporting Cluster					
Grade/ Test	Reporting Cluster	No. of Questions	Avg % Correct Statewide		
			All	Minimally Proficient	Minimally Advanced
GRADE-LEVEL SCIENCE					
Grade 5 Science (Grades 4 and 5 Standards)					
	Physical Science, Grade 5	11	63	72	86
	Physical Science, Grade 4	8	65	74	90
	Life Science, Grade 5	13	60	68	86
	Life Science, Grade 4	9	64	75	91
	Earth Science, Grade 5	11	58	66	78
	Earth Science, Grade 4	8	51	56	80
Grade 8 Science					
	Motion	8	58	62	74
	Forces, Density, and Buoyancy	13	58	64	76
	Structure of Matter and Periodic Table	16	53	56	72
	Earth in the Solar System	7	61	65	78
	Reactions and the Chemistry of Living Systems	10	52	55	68
	Investigation and Experimentation	6	57	62	74
Grade 10 Life Science					
	Cell Biology	10	51	57	78
	Genetics	12	53	60	77
	Physiology	10	58	68	83
	Ecology	11	58	71	85
	Evolution	11	53	64	84
	Investigation and Experimentation	6	61	72	84
END-OF-COURSE SCIENCE					
Biology					
	Cell Biology	9	52	56	76
	Genetics	18	55	62	78
	Ecology and Evolution	16	54	63	82
	Physiology	11	60	70	84
	Investigation and Experimentation	6	57	68	82
Chemistry					
	Atomic and Molecular Structure	8	66	76	89
	Chemical Bonds, Biochemistry	9	63	72	84
	Kinetics, Thermodynamics	14	56	64	81
	Chemical Reactions	13	52	61	78

CALIFORNIA SCIENCE STANDARDS TESTS					
Number of Questions for 2007 Reporting Clusters and the Average Percent Correct on Each Reporting Cluster					
Grade/ Test	Reporting Cluster	No. of Questions	Avg % Correct Statewide		
			All	Minimally Proficient	Minimally Advanced
	Conservation of Matter and Stoichiometry	10	57	67	86
	Investigation and Experimentation	6	67	82	90
Earth Science					
	Astronomy and Cosmology	12	54	67	82
	Solid Earth	14	55	70	83
	The Earth's Energy	28	49	64	84
	Investigation and Experimentation	6	56	72	87
Physics					
	Motion and Forces	12	60	66	81
	Conservation of Energy and Momentum	12	55	62	77
	Heat and Thermodynamics	9	64	74	86
	Waves	10	59	67	81
	Electric and Magnetic Phenomena	11	54	59	76
	Investigation and Experimentation	6	60	67	79
Integrated/Coordinated 1					
	Biology/Life Sciences	10	49	72	86
	Chemistry	15	41	57	75
	Earth Sciences	17	53	77	87
	Physics	12	37	53	76
	Investigation and Experimentation	6	51	79	89
Integrated/Coordinated 2					
	Biology/Life Sciences	15	47	67	82
	Chemistry	6	38	73	87
	Earth Sciences	15	46	65	82
	Physics	18	34	67	81
	Investigation and Experimentation	6	41	71	86
Integrated/Coordinated 3					
	Biology/Life Sciences	16	38	56	75
	Chemistry	23	32	65	81
	Earth Sciences	7	45	64	82
	Physics	8	31	53	71
	Investigation and Experimentation	6	45	70	85

CALIFORNIA SCIENCE STANDARDS TESTS					
Number of Questions for 2007 Reporting Clusters and the Average Percent Correct on Each Reporting Cluster					
Grade/ Test	Reporting Cluster	No. of Questions	Avg % Correct Statewide		
			All	Minimally Proficient	Minimally Advanced
Integrated/Coordinated 4					
	Biology/Life Sciences	13	46	65	81
	Chemistry	10	37	67	82
	Earth Sciences	15	43	63	81
	Physics	16	38	71	85
	Investigation and Experimentation	6	41	67	82

CSTs for History–Social Science Reporting Clusters

CALIFORNIA HISTORY–SOCIAL SCIENCE STANDARDS TESTS					
Number of Questions for 2007 Reporting Clusters and the Average Percent Correct on Each Reporting Cluster					
Grade/ Test	Reporting Cluster	No. of Questions	Avg % Correct Statewide		
			All	Minimally Proficient	Minimally Advanced
Grade 8 (Grades 6, 7, 8 Standards)					
	World History and Geography: Ancient Civilizations	16	52	59	75
	Late Antiquity and the Middle Ages	14	51	61	76
	Renaissance/Reformation	10	50	56	75
	U.S. Constitution and the Early Republic	22	52	61	77
	Civil War and Its Aftermath	13	52	62	77
Grade 11 (U.S. History)					
	Foundations of American Political and Social Thought	10	52	60	77
	Industrialization and the U.S. Role as a World Power	13	51	58	77
	United States Between the World Wars	12	51	60	75
	World War II and Foreign Affairs	12	51	60	80
	Post-World War II Domestic Issues	13	51	62	75
END-OF-COURSE HISTORY–SOCIAL SCIENCE					
World History					
	Development of Modern Political Thought	13	51	63	75
	Industrial Expansion and Imperialism	10	53	63	77
	Causes and Effects of the First World War	14	50	62	77
	Causes and Effects of the Second World War	13	51	63	80
	International Developments in the Post-World War II Era	10	45	56	74