

California Department of Education Assessment Development & Administration Division



California Assessment of Student Performance and Progress

California Assessment of Student Performance and Progress

California Science Test 2018–2019 Technical Report

Chapter 10 Appendix

Submitted July 31, 2020

Prepared for the California Department of Education by Educational Testing Service



Contract No. CN150012

Table of Contents

Appendix 10.A: Student Survey	Results1

List of Tables

Table 10.A.1Scale Score Distribution by Responses to Question 1 for Grade Five1Table 10.A.2Scale Score Distribution by Responses to Question 2 for Grade Five1Table 10.A.3Scale Score Distribution by Responses to Question 3 for Grade Five2Table 10.A.4Scale Score Distribution by Responses to Question 1 for Grade Eight2Table 10.A.5Scale Score Distribution by Responses to Question 2 for Grade Eight2Table 10.A.6Scale Score Distribution by Responses to Question 3 for Grade Eight3Table 10.A.7Scale Score Distribution by Responses to Question 3 for Grade Eight3Table 10.A.7Scale Score Distribution by Responses to Question 1 for Grade Ten3Table 10.A.8Scale Score Distribution by Responses to Question 2 for Grade Ten3Table 10.A.9Scale Score Distribution by Responses to Question 3 for Grade Ten4Table 10.A.10Scale Score Distribution by Responses to Question 4 for Grade Ten4Table 10.A.11Scale Score Distribution by Responses to Question 2 for Grade Eleven4Table 10.A.12Scale Score Distribution by Responses to Question 2 for Grade Eleven5Table 10.A.13Scale Score Distribution by Responses to Question 2 for Grade Eleven5Table 10.A.14Scale Score Distribution by Responses to Question 3 for Grade Eleven5Table 10.A.14Scale Score Distribution by Responses to Question 3 for Grade Eleven5Table 10.A.15Scale Score Distribution by Responses to Question 1 for Grade Eleven5Table 10.A.14Scale Score Distribution by Respon
Table 10.A.15 Scale Score Distribution by Responses to Question 1 for Grade Twelve6

Appendix 10.A: Student Survey Results

Did you learn about the topics on the test in your science classes?	N	Percent	Scale Score Mean	Scale Score SD	R*
My classes taught me about ALL of the topics on the test.	98,238	21.6	195	22.2	N/A
My classes taught me about MOST of the topics on the test,					
but not all of them.	294,774	64.9	203	21.7	N/A
My classes did NOT teach me most of the topics on the test.	61,365	13.5	202	22.1	N/A
Total	454,377	100.0	201	22.1	-0.11

Table 10.A.1 Scale Score Distribution by Responses to Question 1 for Grade Five

*R is the correlation between survey responses (1 = NOT, 2 = MOST, and 3 = ALL) and the California Science Test (CAST) scale scores.

Table 10.A.2 Scale Score Distribution by Responses to Question 2 for Grade Five

Were any questions on the test different from the			Scale Score	Scale	
types of questions you see in science classes?	Ν	Percent	Mean	Score SD	R*
Most questions on the test were different.	155,844	34.3	199	22.1	N/A
Some questions on the test were different.	273,228	60.1	203	21.9	N/A
No questions on the test were different.	25,290	5.6	194	22.4	N/A
Total	454,362	100.0	201	22.1	0.03

*R is the correlation between survey responses (1 = Most, 2 = Some, and 3 = No) and the CAST scale scores.

			Score SD	R*
46,075	32.2	200	22.2	N/A
60,574	57.4	203	21.8	N//
47,705	10.5	197	22.9	N//
54,354	100.0	201	22.1	0.0
2	60,574 47,705 54,354	60,574 57.4 47,705 10.5 54,354 100.0	60,574 57.4 203 47,705 10.5 197 54,354 100.0 201	60,57457.420321.847,70510.519722.954,354100.020122.1

Table 10.A.3 Scale Score Distribution by Responses to Question 3 for Grade Five

*R is the correlation between survey responses (1 = HARDER, 2 = ABOUT AS HARD, and 3 = EASIER) and the CAST scale scores.

Table 10.A.4 Scale Score Distribution by Responses to Question 1 for Grade Eight

Did you learn about the topics on the test in your science classes?	N	Percent	Scale Score Mean	Scale Score SD	R*
My classes taught me about ALL of the topics on the test.	79,986	17.4	399	23.9	N/A
My classes taught me about MOST of the topics on the test,	,				
but not all of them.	306,251	66.7	403	22.0	N/A
My classes did NOT teach me most of the topics on the test.	72,941	15.9	397	21.7	N/A
Total	459,178	100.0	401	22.4	0.02

*R is the correlation between survey responses (1 = NOT, 2 = MOST, and 3 = ALL) and CAST scale scores.

Table 10.A.5 Scale Score Distribution by Responses to Question 2 for Grade Eight

Were any questions on the test different from the			Scale Score	Scale	
types of questions you see in science classes?	Ν	Percent	Mean	Score SD	R*
Most questions on the test were different.	151,542	33.0	398	22.2	N/A
Some questions on the test were different.	281,080	61.2	404	22.1	N/A
No questions on the test were different.	26,544	5.8	397	24.1	N/A
Total	459,166	100.0	401	22.4	0.07

*R is the correlation between survey responses (1 = Most, 2 = Some, and 3 = No) and the CAST scale scores.

How hard were questions on this test compared to questions you see in science classes?	N	Percent	Scale Score Mean	Scale Score SD	R*
They were HARDER than most questions in my science classes.	178,186	38.8	398	21.7	N/A
They were ABOUT AS HARD as the questions in my science classes.	239,777	52.2	404	22.2	N/A
They were EASIER than most questions in my science classes.	41,199	9.0	402	24.6	N/A
Total	459,162	100.0	401	22.4	0.10

Table 10.A.6 Scale Score Distribution by Responses to Question 3 for Grade Eight

*R is the correlation between survey responses (1 = HARDER, 2 = ABOUT AS HARD, and 3 = EASIER) and the CAST scale scores.

Table 10.A.7 Scale Score Distribution by Responses to Question 1 for Grade Ten

Did you learn about the topics on the test in your science classes?	N	Percent	Scale Score Mean	Scale Score SD	R*
	IN	Fercent	INICALL	Scole SD	N
My classes taught me about ALL of the topics on the test.	1,759	7.7	587	20.8	N/A
My classes taught me about MOST of the topics on the test,					
but not all of them.	13,408	58.4	599	21.7	N/A
My classes did NOT teach me most of the topics on the test.	7,793	33.9	595	20.3	N/A
Total	22,960	100.0	597	21.4	-0.01

*R is the correlation between survey responses (1 = NOT, 2 = MOST, and 3 = ALL) and CAST scale scores.

Table 10.A.8 Scale Score Distribution by Responses to Question 2 for Grade Ten

Were any questions on the test different from the			Scale Score	Scale	
types of questions you see in science classes?	Ν	Percent	Mean	Score SD	R*
Most questions on the test were different.	10,706	46.6	595	21.0	N/A
Some questions on the test were different.	10,854	47.3	599	21.6	N/A
No questions on the test were different.	1,399	6.1	588	20.8	N/A
Total	22,959	100.0	597	21.4	0.01

*R is the correlation between survey responses (1 = Most, 2 = Some, and 3 = No) and the CAST scale scores.

N	Percent	Scale Score Mean	Scale Score SD	R*
11,751	51.2	594	20.2	N//
9,580	41.7	599	21.5	N//
1,628	7.1	602	26.7	N//
22,959	100.0	597	21.4	0.1
	11,751 9,580 1,628	11,75151.29,58041.71,6287.1	N Percent Mean 11,751 51.2 594 9,580 41.7 599 1,628 7.1 602	N Percent Mean Score SD 11,751 51.2 594 20.2 9,580 41.7 599 21.5 1,628 7.1 602 26.7

Table 10.A.9 Scale Score Distribution by Responses to Question 3 for Grade Ten

*R is the correlation between survey responses (1 = HARDER, 2 = ABOUT AS HARD, and 3 = EASIER) and the CAST scale scores.

Table 10.A.10 Scale Score Distribution by Responses to Question 4 for Grade Ten

Do you think you will be enrolling in any				Scale Score	Scale	
more science classes in high school?		Ν	Percent	Mean	Score SD	R*
	Yes	15,823	68.9	601	21.7	N/A
	No	7,136	31.1	588	18.0	N/A
	Total	22,959	100.0	597	21.4	0.27

*R is the correlation between survey responses (1 = No and 2 = Yes) and the CAST scale scores.

Table 10.A.11 Scale Score Distribution by Responses to Question 1 for Grade Eleven

Did you learn about the topics on the test in your science classes?	N	Percent	Scale Score Mean	Scale Score SD	R*
My classes taught me about ALL of the topics on the test.	21,451	8.4	596	24.9	N/A
My classes taught me about MOST of the topics on the test, but not all of them.	155,681	61.1	604	22.4	N/A
My classes did NOT teach me most of the topics on the test.	77,863	30.5	597	20.6	N/A
Total	254,995	100.0	601	22.3	0.07

*R is the correlation between survey responses (1 = NOT, 2 = MOST, and 3 = ALL) and CAST scale scores.

Were any questions on the test different from the			Scale Score	Scale	
types of questions you see in science classes?	Ν	Percent	Mean	Score SD	R*
Most questions on the test were different.	111,662	43.8	598	21.6	N/A
Some questions on the test were different.	127,913	50.2	604	22.3	N/A
No questions on the test were different.	15,412	6.0	594	23.5	N/A
Total	254,987	100.0	601	22.3	0.07

Table 10.A.12 Scale Score Distribution by Responses to Question 2 for Grade Eleven

*R is the correlation between survey responses (1 = Most, 2 = Some, and 3 = No) and the CAST scale scores.

Table 10.A.13 Scale Score Distribution by Responses to Question 3 for Grade Eleven

Ν	Porcont	Scale Score	Scale	R*
	Fercent	INICALL		<u> </u>
120,187	47.1	596	20.2	N/A
111,984	43.9	604	22.3	N/A
22,812	8.9	611	26.8	N/A
254,983	100.0	601	22.3	0.22
_	111,984 22,812	120,18747.1111,98443.922,8128.9	N Percent Mean 120,187 47.1 596 111,984 43.9 604 22,812 8.9 611	NPercentMeanScore SD120,18747.159620.2111,98443.960422.322,8128.961126.8

*R is the correlation between survey responses (1 = HARDER, 2 = ABOUT AS HARD, and 3 = EASIER) and the CAST scale scores.

Table 10.A.14 Scale Score Distribution by Responses to Question 4 for Grade Eleven

Do you think you will be enrolling in more science classes in high scho		N	Percent	Scale Score Mean	Scale Score SD	R*
	Yes	138,825	54.4	606	22.7	N/A
	No	116,153	45.6	595	20.4	N/A
	Total	254,978	100.0	601	22.3	0.24

*R is the correlation between survey responses (1 = No and 2 = Yes) and the CAST scale scores.

Did you learn about the topics on			Scale Score	Scale	
the test in your science classes?	Ν	Percent	Mean	Score SD	R*
My classes taught me about ALL of the topics on the test.	29,834	10.9	596	25.2	N/A
My classes taught me about MOST of the topics on the test,					
but not all of them.	161,709	59.1	601	22.9	N/A
My classes did NOT teach me most of the topics on the test.	81,889	29.9	591	19.8	N/A
Total	273,432	100.0	598	22.7	0.12

*R is the correlation between survey responses (1 = NOT, 2 = MOST, and 3 = ALL) and CAST scale scores.

Table 10.A.16 Scale Score Distribution by Responses to Question 2 for Grade Twelve

Were any questions on the test different from the			Scale Score	Scale	
types of questions you see in science classes?	Ν	Percent	Mean	Score SD	R*
Most questions on the test were different.	112,703	41.2	593	21.3	N/A
Some questions on the test were different.	139,718	51.1	602	22.8	N/A
No questions on the test were different.	21,006	7.7	593	23.9	N/A
Total	273,427	100.0	598	22.7	0.10

*R is the correlation between survey responses (1 = Most, 2 = Some, and 3 = No) and the CAST scale scores.

Table 10.A.17 Scale Score Distribution by Responses to Question 3 for Grade Twelve

N	Percent	Scale Score Mean	Scale Score SD	R*
120,709	44.1	592	19.7	N/A
125,174	45.8	601	22.5	N/A
27,540	10.1	609	27.9	N/A
273,423	100.0	598	22.7	0.25
	120,709 125,174 27,540	120,70944.1125,17445.827,54010.1	NPercentMean120,70944.1592125,17445.860127,54010.1609	N Percent Mean Score SD 120,709 44.1 592 19.7 125,174 45.8 601 22.5 27,540 10.1 609 27.9

scores.

Did you learn about the topics on		Descent	Scale Score	Scale	•
the test in your science classes?	Ν	Percent	Mean	Score SD	R*
My classes taught me about ALL of the topics on the test.	53,044	9.6	596	25.0	N/A
My classes taught me about MOST of the topics on the test,					
but not all of them.	330,798	60.0	602	22.6	N/A
My classes did NOT teach me most of the topics on the test.	167,545	30.4	594	20.3	N/A
Total	551,387	100.0	599	22.5	0.09

Table 10.A.18 Scale Score Distribution by Responses to Question 1 for High School

*R is the correlation between survey responses (1 = NOT, 2 = MOST, and 3 = ALL) and CAST scale scores.

Table 10.A.19 Scale Score Distribution by Responses to Question 2 for High School

Were any questions on the test different from the			Scale Score	Scale	
types of questions you see in science classes?	Ν	Percent	Mean	Score SD	R*
Most questions on the test were different.	235,071	42.6	596	21.5	N/A
Some questions on the test were different.	278,485	50.5	603	22.6	N/A
No questions on the test were different.	37,817	6.9	593	23.7	N/A
Total	551,373	100.0	599	22.5	0.08

*R is the correlation between survey responses (1 = Most, 2 = Some, and 3 = No) and the CAST scale scores.

Table 10.A.20 Scale Score Distribution by Responses to Question 3 for High School

How hard were questions on this test compared to questions you see in science classes?	N	Percent	Scale Score Mean	Scale Score SD	R*
	IN	Fercent	INICALL	Score SD	n
They were HARDER than most questions in my science					
classes.	252,647	45.8	594	20.1	N/A
They were ABOUT AS HARD as the questions in my					
science classes.	246.738	44.8	602	22.4	N/A
They were EASIER than most questions in my science	2.0,.00	1110	002		1 4/7
classes.	51,980	9.4	610	27.5	N//
Total	551,365	100.0	599	22.5	0.23
the correlation between survey responses $(1 = HARDER, 2)$			and $3 - EASIE$	R) and the (TPA

*R is the correlation between survey responses (1 = HARDER, 2 = ABOUT AS HARD, and 3 = EASIER) and the CAST scale scores.

Do you think you will be enrolling in any				Scale Score	Scale	
more science classes in high school?		Ν	Percent	Mean	Score SD	R*
	Yes	154,648	55.6	605	22.6	N/A
	No	123,289	44.4	595	20.4	N/A
	Total	277,937	100.0	601	22.3	0.24

Table 10.A.21 Scale Score Distribution by Responses to Question 4 for Grades Ten and Eleven

*R is the correlation between survey responses (1 = No and 2 = Yes) and the CAST scale scores.