

CMAS Technical Report 2021– Tables

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Table 1. CMAS Subject and Grade Combinations

	Grade					
Subject	3	4	5	6	7	8
Math	X	X	X	X	X	X
ELA	X	X	X	X	X	X
CSLA	X	X				
Science						X

Table 2. CMAS Scale Score Ranges

Content Area	Grade	Did Not Yet Meet Expectations	Partially Met Expectations	Approached Expectations	Met Expectations	Exceeded Expectations
Math	3	650–699	700–724	725–749	750–789	790–850
	4	650–699	700–724	725–749	750–795	796–850
	5	650–699	700–724	725–749	750–789	790–850
	6	650–699	700–724	725–749	750–787	788–850
	7	650–699	700–724	725–749	750–785	786–850
	8	650–699	700–724	725–749	750–800	801–850
ELA	3	650–699	700–724	725–749	750–809	810–850
	4	650–699	700–724	725–749	750–789	790–850
	5	650–699	700–724	725–749	750–798	799–850
	6	650–699	700–724	725–749	750–789	790–850
	7	650–699	700–724	725–749	750–784	785–850
	8	650–699	700–724	725–749	750–793	794–850
CSLA	3	650–699	700–724	725–749	750–778	779–850
	4	650–699	700–724	725–749	750–771	772–850
Science	8		300–555	556–651	652–784	785–900

Table 3. Coefficient Alpha

Content Area	Grade	Subclaim 1	Subclaim 2	Subclaim 3	Reading Claim	Subclaim 4	Subclaim 5	Writing Claim	Full Test
MATH	3	0.86	0.78	0.63		0.66			0.92
	4	0.88	0.67	0.67		0.67			0.92
	5	0.88	0.70	0.72		0.65			0.92
	6	0.82	0.62	0.75		0.64			0.90
	7	0.82	0.57	0.74		0.53			0.89
	8	0.82	0.54	0.77		0.43			0.89
ELA	3	0.74	0.77	0.63	0.88	0.67	0.77	0.72	0.90
	4	0.74	0.76	0.65	0.88	0.68	0.79	0.76	0.89
	5	0.71	0.66	0.39	0.83	0.63	0.70	0.72	0.86
	6	0.74	0.69	0.47	0.84	0.63	0.75	0.73	0.88
	7	0.74	0.68	0.53	0.85	0.81	0.81	0.81	0.88
	8	0.73	0.75	0.56	0.87	0.86	0.87	0.85	0.89
CSLA	3	0.74	0.55	0.64	0.85	0.46	0.72	0.62	0.84
	4	0.83	0.68	0.56	0.87	0.74	0.75	0.74	0.88
Science	8	0.82	0.83	0.84		0.79			0.94

Note: For mathematics, Subclaims 1, 2, 3, and 4 are Subclaims A, B, C, and D, respectively. For ELA and CSLA, Subclaims 1, 2, 3, 4, and 5 are RL, RI, RV, WE, and WKL, respectively. For Science, Subclaims 1, 2, 3, and 4 are Physical Science, Life Science, Earth Systems Science, and Scientific Investigations and the Nature of Science, respectively.

Table 4. Mathematics Grade 3 Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	5,304	744.50	36.15	650	850	0.91
IEP	638	709.48	36.22	650	842	0.93
No Accommodation	4,950	746.86	35.52	650	850	0.91
Accommodation	992	710.19	33.46	650	817	0.90
Am. Indian/Alaska Native	33	719.67	31.92	673	800	0.71
Asian	250	765.27	37.41	651	850	0.88
Black	119	719.59	38.52	650	816	0.92
Hispanic	1,442	722.83	35.89	650	842	0.89
White	3,793	746.50	35.59	650	850	0.91
Hawaiian/Pacific Islander*	n/a	n/a	n/a	n/a	n/a	n/a
Two or More Races	295	744.30	38.23	650	848	0.92
Missing*	n/a	n/a	n/a	n/a	n/a	n/a
No Economic Disadvantage	4,005	750.43	35.76	650	850	0.91
Economic Disadvantage	1,937	720.70	33.64	650	828	0.90
Female	2,821	738.31	37.24	650	850	0.91
Male	3,121	742.94	38.07	650	850	0.92
Language Proficiency NA	5,298	743.13	36.98	650	850	0.91
Language Proficiency NEP	96	687.77	27.81	650	758	0.86
Language Proficiency LEP	414	717.39	32.15	650	815	0.88
Language Proficiency FEP	134	756.27	34.85	658	842	0.92
Not Migrant	5,922	740.82	37.74	650	850	0.91
Migrant	20	716.85	31.10	664	768	.

*n-count less than 16

Table 5. Mathematics Grade 4 Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	41,058	733.21	32.24	650	850	0.91
IEP	5,725	702.49	29.38	650	850	0.90
No Accommodation	37,170	735.78	31.75	650	850	0.91
Accommodation	9,613	704.98	28.21	650	850	0.86
Am. Indian/Alaska Native	267	714.83	32.78	650	803	0.91
Asian	1,516	746.67	35.80	650	850	0.92
Black	1,749	713.67	29.67	650	810	0.91
Hispanic	15,294	713.54	29.39	650	850	0.89
White	25,549	738.75	31.54	650	850	0.91
Hawaiian/Pacific Islander	128	715.13	31.98	650	786	0.90
Two or More Races	2,271	735.25	34.42	650	850	0.91
Missing*	n/a	n/a	n/a	n/a	n/a	n/a
No Economic Disadvantage	30,360	738.43	32.30	650	850	0.91
Economic Disadvantage	16,423	712.86	28.91	650	850	0.90
Female	22,790	727.71	32.32	650	850	0.91
Male	23,993	731.11	34.42	650	850	0.92
Language Proficiency NA	38,469	733.60	32.82	650	850	0.91
Language Proficiency NEP	1,125	687.38	20.92	650	770	0.76
Language Proficiency LEP	5,038	705.68	25.32	650	834	0.85
Language Proficiency FEP	2,151	732.98	27.88	650	840	0.90
Not Migrant	46,573	729.56	33.44	650	850	0.91
Migrant	210	705.15	28.08	650	789	0.87

*n-count less than 16

Table 6. Mathematics Grade 5 Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	5,292	742.14	32.99	650	850	0.91
IEP	643	709.02	28.08	650	798	0.90
No Accommodation	5,006	743.61	32.44	650	850	0.91
Accommodation	929	711.29	29.47	650	832	0.89
Am. Indian/Alaska Native	38	713.95	32.83	666	812	.
Asian	231	760.26	35.48	656	821	0.92
Black	161	728.71	32.62	655	832	0.90
Hispanic	1,566	723.59	31.04	650	832	0.91
White	3,680	744.01	32.87	650	850	0.91
Hawaiian/Pacific Islander*	n/a	n/a	n/a	n/a	n/a	n/a
Two or More Races	249	742.72	34.06	650	823	0.91
Missing*	n/a	n/a	n/a	n/a	n/a	n/a
No Economic Disadvantage	3,956	746.59	32.99	650	850	0.91
Economic Disadvantage	1,979	722.48	30.34	650	832	0.91
Female	2,908	736.65	33.80	650	850	0.90
Male	3,027	740.37	34.25	650	842	0.92
Language Proficiency NA	5,192	740.68	33.59	650	850	0.91
Language Proficiency NEP	53	695.74	26.12	650	811	0.77
Language Proficiency LEP	338	709.35	24.25	650	790	0.84
Language Proficiency FEP	352	741.60	33.32	652	820	0.90
Not Migrant	5,907	738.63	34.09	650	850	0.91
Migrant	28	721.96	26.98	674	769	.

*n-count less than 16

Table 7. Mathematics Grade 6 Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	39,672	730.39	31.13	650	850	0.89
IEP	5,147	697.26	25.91	650	836	0.84
No Accommodation	39,265	730.44	31.23	650	850	0.89
Accommodation	5,554	699.32	26.52	650	825	0.84
Am. Indian/Alaska Native	244	711.88	29.82	650	801	0.91
Asian	1,364	747.15	37.04	650	850	0.91
Black	1,626	711.92	29.72	650	837	0.85
Hispanic	15,411	712.40	28.83	650	845	0.87
White	24,131	735.27	30.50	650	850	0.89
Hawaiian/Pacific Islander	94	719.81	31.62	650	800	0.88
Two or More Races	1,946	731.12	32.75	650	850	0.91
Missing*	n/a	n/a	n/a	n/a	n/a	n/a
No Economic Disadvantage	29,109	734.85	31.48	650	850	0.89
Economic Disadvantage	15,710	711.27	28.07	650	841	0.86
Female	21,536	725.64	31.61	650	850	0.89
Male	23,283	727.45	33.00	650	850	0.90
Language Proficiency NA	36,449	730.67	31.75	650	850	0.89
Language Proficiency NEP	549	686.28	22.07	650	766	0.73
Language Proficiency LEP	3,409	697.19	23.37	650	827	0.84
Language Proficiency FEP	4,412	720.58	27.89	650	850	0.86
Not Migrant	44,600	726.69	32.35	650	850	0.89
Migrant	219	704.04	25.04	650	785	0.83

*n-count less than 16

Table 8. Mathematics Grade 7 Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	4,940	735.47	25.97	650	840	0.86
IEP	570	706.94	20.40	650	779	0.85
No Accommodation	4,937	735.29	26.05	650	840	0.86
Accommodation	573	708.66	21.65	650	783	0.71
Am. Indian/Alaska Native	37	713.00	24.25	650	772	.
Asian	212	756.25	29.82	669	837	0.86
Black	124	720.72	24.65	656	792	0.62
Hispanic	1,398	721.77	24.58	650	815	0.86
White	3,514	735.88	25.81	650	840	0.86
Hawaiian/Pacific Islander*	n/a	n/a	n/a	n/a	n/a	n/a
Two or More Races	218	734.26	27.15	680	821	0.88
Missing*	n/a	n/a	n/a	n/a	n/a	n/a
No Economic Disadvantage	4,029	737.18	26.59	650	840	0.87
Economic Disadvantage	1,481	719.85	23.40	650	815	0.82
Female	2,671	732.90	27.70	650	840	0.85
Male	2,839	732.16	26.10	650	828	0.88
Language Proficiency NA	4,869	734.15	26.63	650	840	0.86
Language Proficiency NEP	33	700.48	13.52	664	731	.
Language Proficiency LEP	249	706.56	19.32	650	773	0.61
Language Proficiency FEP	359	731.38	24.59	654	799	0.81
Not Migrant	5,493	732.57	26.89	650	840	0.86
Migrant	17	715.65	18.55	682	746	.

*n-count less than 16

Table 9. Mathematics Grade 8 Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	35,234	734.32	37.94	650	850	0.89
IEP	3,971	694.87	26.56	650	837	0.78
No Accommodation	35,063	734.00	38.15	650	850	0.89
Accommodation	4,142	699.16	29.28	650	850	0.82
Am. Indian/Alaska Native	213	712.12	33.75	650	816	0.86
Asian	1,220	757.69	43.16	650	850	0.90
Black	1,296	712.72	34.63	650	850	0.88
Hispanic	13,683	713.34	32.54	650	850	0.87
White	21,083	740.59	37.89	650	850	0.89
Hawaiian/Pacific Islander	93	722.53	34.70	650	808	0.77
Two or More Races	1,612	736.56	39.60	650	850	0.88
Missing*	n/a	n/a	n/a	n/a	n/a	n/a
No Economic Disadvantage	26,097	739.79	38.79	650	850	0.89
Economic Disadvantage	13,108	711.48	31.27	650	850	0.84
Female	18,335	730.89	37.86	650	850	0.88
Male	20,870	729.83	39.64	650	850	0.90
Language Proficiency NA	32,773	735.33	38.54	650	850	0.89
Language Proficiency NEP	661	687.05	20.73	650	802	0.58
Language Proficiency LEP	2,653	694.81	23.02	650	804	0.73
Language Proficiency FEP	3,118	717.08	29.74	650	850	0.80
Not Migrant	39,012	730.46	38.82	650	850	0.89
Migrant	193	703.27	27.43	650	780	0.85

*n-count less than 16

Table 10. ELA Grade 3 Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	40,174	740.89	40.90	650	850	0.84
IEP	5,017	699.09	36.93	650	850	0.86
No Accommodation	42,177	739.04	41.69	650	850	0.85
Accommodation	3,014	697.27	34.53	650	849	0.84
Am. Indian/Alaska Native	273	717.15	40.05	650	850	0.85
Asian	1,459	745.81	42.98	650	850	0.85
Black	1,713	719.70	40.42	650	850	0.86
Hispanic	14,028	717.94	39.37	650	850	0.85
White	25,355	746.71	40.52	650	850	0.84
Hawaiian/Pacific Islander	118	721.10	40.28	650	826	0.83
Two or More Races	2,233	742.23	42.51	650	850	0.85
Missing*	n/a	n/a	n/a	n/a	n/a	n/a
No Economic Disadvantage	29,341	747.24	40.69	650	850	0.84
Economic Disadvantage	15,850	715.91	38.20	650	850	0.84
Female	21,842	739.73	43.04	650	850	0.85
Male	23,349	733.00	41.83	650	850	0.86
Language Proficiency NA	38,219	741.09	41.63	650	850	0.85
Language Proficiency NEP	1,149	677.22	22.88	650	778	0.66
Language Proficiency LEP	4,804	709.09	32.99	650	847	0.80
Language Proficiency FEP	1,019	749.49	33.39	650	850	0.75
Not Migrant	45,000	736.39	42.54	650	850	0.86
Migrant	191	703.84	31.63	650	782	0.80

*n-count less than 16

Table 11. ELA Grade 4 Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	5,116	747.32	31.70	650	850	0.86
IEP	609	702.90	33.12	650	825	0.88
No Accommodation	5,299	745.63	32.94	650	850	0.87
Accommodation	426	704.86	33.60	650	817	0.89
Am. Indian/Alaska Native	47	725.62	36.55	650	837	0.88
Asian	233	759.08	31.65	650	848	0.85
Black	163	723.13	34.66	650	813	0.88
Hispanic	1,468	727.29	33.32	650	824	0.88
White	3,524	748.40	32.96	650	850	0.87
Hawaiian/Pacific Islander*	n/a	n/a	n/a	n/a	n/a	n/a
Two or More Races	277	750.96	32.99	650	847	0.86
Missing*	n/a	n/a	n/a	n/a	n/a	n/a
No Economic Disadvantage	3,890	749.77	32.68	650	850	0.87
Economic Disadvantage	1,835	727.38	33.86	650	837	0.88
Female	2,872	746.98	33.73	650	850	0.87
Male	2,853	738.18	35.05	650	850	0.89
Language Proficiency NA	5,024	745.10	34.05	650	850	0.88
Language Proficiency NEP	54	675.87	18.33	650	729	0.55
Language Proficiency LEP	418	718.10	29.65	650	823	0.85
Language Proficiency FEP	229	748.04	25.26	678	830	0.78
Not Migrant	5,708	742.68	34.64	650	850	0.88
Migrant	17	715.59	35.38	650	776	0.87

*n-count less than 16

Table 12. ELA Grade 5 Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	41,316	750.18	30.80	650	850	0.82
IEP	5,601	715.59	27.68	650	849	0.79
No Accommodation	42,967	748.68	31.54	650	850	0.82
Accommodation	3,950	717.52	28.19	650	837	0.80
Am. Indian/Alaska Native	272	732.89	31.98	650	821	0.84
Asian	1,391	756.25	32.92	650	850	0.83
Black	1,792	733.35	29.32	650	838	0.80
Hispanic	15,781	731.21	29.68	650	850	0.80
White	25,364	755.38	30.45	650	850	0.81
Hawaiian/Pacific Islander	105	731.59	31.96	650	798	0.80
Two or More Races	2,201	751.20	32.33	650	850	0.83
Missing*	n/a	n/a	n/a	n/a	n/a	n/a
No Economic Disadvantage	30,079	754.71	31.07	650	850	0.82
Economic Disadvantage	16,838	730.59	28.92	650	850	0.79
Female	22,911	749.42	32.44	650	850	0.83
Male	24,006	742.84	32.12	650	850	0.84
Language Proficiency NA	38,332	750.58	31.50	650	850	0.82
Language Proficiency NEP	624	698.97	20.27	650	768	0.46
Language Proficiency LEP	4,339	715.59	22.99	650	819	0.65
Language Proficiency FEP	3,622	742.74	26.65	650	850	0.76
Not Migrant	46,693	746.18	32.43	650	850	0.83
Migrant	224	720.13	24.96	650	800	0.72

*n-count less than 16

Table 13. ELA Grade 6 Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	4,851	742.52	27.86	650	850	0.81
IEP	588	703.22	26.33	650	795	0.81
No Accommodation	5,066	740.60	29.18	650	850	0.82
Accommodation	373	706.68	26.89	650	806	0.81
Am. Indian/Alaska Native	32	720.53	27.73	672	796	0.85
Asian	188	758.90	29.48	651	850	0.81
Black	114	730.46	30.80	650	817	0.83
Hispanic	1,393	726.54	28.54	650	808	0.82
White	3,471	742.18	29.29	650	830	0.83
Hawaiian/Pacific Islander*	n/a	n/a	n/a	n/a	n/a	n/a
Two or More Races	227	740.14	31.28	654	808	0.85
Missing*	n/a	n/a	n/a	n/a	n/a	n/a
No Economic Disadvantage	3,936	743.69	29.34	650	850	0.82
Economic Disadvantage	1,503	724.10	27.98	650	817	0.82
Female	2,613	742.29	30.33	650	850	0.83
Male	2,826	734.56	29.72	650	826	0.84
Language Proficiency NA	4,829	740.33	29.79	650	850	0.83
Language Proficiency NEP	31	686.16	22.94	650	743	0.67
Language Proficiency LEP	290	708.77	21.69	650	788	0.72
Language Proficiency FEP	289	739.12	25.53	650	813	0.75
Not Migrant	5,420	738.39	30.20	650	850	0.83
Migrant	19	705.21	31.27	650	766	0.88

*n-count less than 16

Table 14. ELA Grade 7 Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	38,230	746.77	35.12	650	850	0.84
IEP	4,704	703.62	28.75	650	849	0.80
No Accommodation	39,318	745.14	35.95	650	850	0.85
Accommodation	3,616	708.36	31.32	650	836	0.83
Am. Indian/Alaska Native	243	722.47	37.25	650	830	0.86
Asian	1,292	759.62	38.05	650	850	0.85
Black	1,537	728.28	35.32	650	850	0.85
Hispanic	14,731	726.71	33.85	650	850	0.82
White	23,194	751.45	35.29	650	850	0.84
Hawaiian/Pacific Islander	94	733.71	34.55	650	801	0.83
Two or More Races	1,837	748.43	36.68	650	850	0.85
Missing*	n/a	n/a	n/a	n/a	n/a	n/a
No Economic Disadvantage	28,227	750.95	35.65	650	850	0.85
Economic Disadvantage	14,707	724.95	33.43	650	850	0.82
Female	20,305	748.16	37.06	650	850	0.85
Male	22,629	736.55	36.11	650	850	0.86
Language Proficiency NA	35,127	746.95	36.13	650	850	0.85
Language Proficiency NEP	593	681.66	20.23	650	752	0.52
Language Proficiency LEP	3,087	705.53	24.75	650	808	0.68
Language Proficiency FEP	4,127	736.28	29.52	650	850	0.77
Not Migrant	42,738	742.18	36.99	650	850	0.86
Migrant	196	712.69	31.91	650	796	0.80

*n-count less than 16

Table 15. ELA Grade 8 Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	4,014	747.38	36.31	650	850	0.84
IEP	449	702.64	28.78	650	829	0.80
No Accommodation	4,149	745.56	37.10	650	850	0.85
Accommodation	314	707.58	33.04	650	829	0.86
Am. Indian/Alaska Native	26	729.27	40.67	653	827	0.81
Asian	143	766.90	34.43	667	843	0.81
Black	73	731.14	38.57	655	819	0.86
Hispanic	1,175	729.80	36.53	650	842	0.84
White	2,848	747.52	37.30	650	850	0.86
Hawaiian/Pacific Islander*	n/a	n/a	n/a	n/a	n/a	n/a
Two or More Races	189	742.92	37.15	659	826	0.84
Missing*	n/a	n/a	n/a	n/a	n/a	n/a
No Economic Disadvantage	3,260	749.53	37.27	650	850	0.85
Economic Disadvantage	1,203	724.87	34.25	650	825	0.84
Female	2,156	750.95	36.58	650	850	0.84
Male	2,307	735.34	37.92	650	850	0.87
Language Proficiency NA	4,021	745.56	37.63	650	850	0.85
Language Proficiency NEP	33	682.00	22.36	650	718	0.59
Language Proficiency LEP	189	705.05	26.18	650	771	0.71
Language Proficiency FEP	220	735.64	30.15	653	811	0.79
Not Migrant	4,446	742.95	38.09	650	850	0.86
Migrant	17	724.18	30.26	669	771	0.83

*n-count less than 16

Table 16. CSLA Grade 3 Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	772	724.60	25.02	650	850	0.86
IEP	65	703.65	23.29	650	769	0.84
No Accommodation						
Accommodation	837	722.98	25.50	650	850	0.87
Am. Indian/Alaska Native*	n/a	n/a	n/a	n/a	n/a	n/a
Asian						
Black						
Hispanic	831	722.95	25.56	650	850	0.87
White*	n/a	n/a	n/a	n/a	n/a	n/a
Hawaiian/Pacific Islander						
Two or More Races						
Missing						
No Economic Disadvantage	245	719.89	24.40	650	850	0.85
Economic Disadvantage	592	724.25	25.86	650	800	0.87
Female	395	726.57	25.19	650	792	0.86
Male	442	719.76	25.38	650	850	0.87
Language Proficiency NA						
Language Proficiency NEP	289	713.73	23.89	650	775	0.84
Language Proficiency LEP	548	727.85	24.99	650	850	0.87
Language Proficiency FEP						
Not Migrant	831	723.18	25.43	650	850	0.87
Migrant*	n/a	n/a	n/a	n/a	n/a	n/a

*n-count less than 16

Table 17. CSLA Grade 4 Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	50	735.04	25.51	672	785	0.88
IEP*	n/a	n/a	n/a	n/a	n/a	n/a
No Accommodation	53	732.92	26.34	672	785	0.89
Accommodation						
Am. Indian/Alaska Native						
Asian						
Black						
Hispanic						
White						
Hawaiian/Pacific Islander						
Two or More Races						
Missing						
No Economic Disadvantage*	n/a	n/a	n/a	n/a	n/a	n/a
Economic Disadvantage	42	737.55	24.65	672	785	0.87
Female	32	736.16	25.45	672	785	0.87
Male	21	728.00	27.53	691	772	0.91
Language Proficiency NA	n/a	n/a	n/a	n/a	n/a	n/a
Language Proficiency NEP*						
Language Proficiency LEP						
Language Proficiency FEP						
Not Migrant	53	732.92	26.34	672	785	0.89
Migrant						

*n-count less than 16

Table 18. Grade 8 Science Performance by Subgroup

Subgroup	N	Mean	SD	Min	Max	Alpha
No IEP	33238	582.54	113.31	300	900	0.93
IEP	3723	442.49	108.08	300	847	0.90
No Accommodation	33676	580.54	114.43	300	900	0.93
Accommodation	3285	444.37	109.61	300	820	0.90
Am. Indian/Alaska Native	205	519.43	117.97	300	780	0.92
Asian	1150	627.33	115.71	300	900	0.94
Black	1164	512.91	118.95	300	861	0.92
Hispanic	12952	512.26	114.21	300	900	0.92
White	19882	603.99	108.93	300	900	0.93
Hawaiian/Pacific Islander	92	548.65	115.08	300	827	0.93
Two or More Races	1511	587.75	116.38	300	900	0.93
Missing*	n/a	n/a	n/a	n/a	n/a	n/a
No Economic Disadvantage	24666	598.10	112.81	300	900	0.93
Economic Disadvantage	12295	508.94	112.93	300	864	0.91
Female	17241	573.14	115.65	300	900	0.93
Male	19720	564.32	124.29	300	900	0.94
Language Proficiency NA	28696	586.09	114.95	300	900	0.93
Language Proficiency NEP	625	372.87	78.60	300	693	0.73
Language Proficiency LEP	2479	435.73	88.62	300	759	0.81
Language Proficiency FEP	2972	527.14	94.53	300	866	0.88
Not Migrant	36773	568.93	120.28	300	900	0.94
Migrant	188	472.49	106.99	300	697	0.88

Table 19. Standard Error of Measurement (SEM) for Writing Claim and Subclaims

Content Area	Grade	Subclaim 1	Subclaim 2	Subclaim 3	Subclaim 4	Subclaim 5	Writing Claim
MATH	3	1.95	1.18	1.55	1.29		
	4	2.07	1.07	1.65	1.31		
	5	2.08	1.26	1.35	1.51		
	6	1.89	1.38	1.60	1.38		
	7	1.97	1.26	1.43	1.51		
	8	2.09	1.34	1.03	1.85		
ELA	3	1.88	1.87	1.57	1.92	0.58	2.25
	4	1.97	2.12	1.45	2.20	0.65	2.50
	5	2.17	1.88	1.51	2.29	0.68	2.55
	6	2.22	2.24	1.55	2.23	0.66	2.48
	7	1.94	2.30	1.70	2.12	0.69	2.76
	8	2.13	2.31	1.80	2.11	0.67	2.87
CSLA	3	2.04	1.58	1.61	3.36	0.89	3.56
	4	2.08	2.16	1.54	2.81	0.89	3.53
Science	8	2.35	2.21	2.5	2.05		

Note: For mathematics, Subclaims 1, 2, 3, and 4 are Subclaims A, B, C, and D, respectively. For ELA and CSLA, Subclaims 1, 2, 3, 4, and 5 are RL, RI, RV, WE, and WKL, respectively. For ELA and CSLA, the subclaim 4 (WE) and Writing claim SEMs are based on weighted points. For Science, Subclaims 1, 2, 3, and 4 are Physical Science, Life Science, Earth Systems Science, and Scientific Investigations and the Nature of Science, respectively.

Table 20. Accuracy and Consistency Estimates

Content Area	Grade	Accuracy	Consistency	PChance	Kappa
MATH	3	0.72	0.62	0.21	0.53
	4	0.76	0.67	0.24	0.57
	5	0.76	0.66	0.23	0.56
	6	0.72	0.62	0.23	0.51
	7	0.74	0.64	0.27	0.51
	8	0.70	0.60	0.22	0.48
ELA	3	0.72	0.63	0.24	0.51
	4	0.71	0.61	0.27	0.47
	5	0.71	0.61	0.29	0.45
	6	0.72	0.62	0.26	0.48
	7	0.67	0.57	0.22	0.44
	8	0.70	0.60	0.24	0.47
CSLA	3	0.73	0.62	0.28	0.47
	4	0.73	0.64	0.28	0.50
Science	8	0.83	0.78	0.33	0.67

Table 21. Accuracy of Cut Scores

Content Area	Grade	Partially Met Expectations Cut	Approached Expectations Cut	Met Expectations Cut	Exceeded Expectations Cut
MATH	3	0.93	0.92	0.92	0.86
	4	0.94	0.91	0.92	0.97
	5	0.95	0.92	0.92	0.92
	6	0.93	0.90	0.92	0.96
	7	0.95	0.89	0.91	0.97
	8	0.91	0.89	0.91	0.95
ELA	3	0.93	0.91	0.91	0.95
	4	0.96	0.92	0.89	0.92
	5	0.96	0.90	0.88	0.94
	6	0.95	0.90	0.89	0.95
	7	0.94	0.90	0.89	0.85
	8	0.95	0.91	0.89	0.89
CSLA	3	0.90	0.89	0.94	0.99
	4	0.95	0.94	0.88	0.96
Science	8		0.94	0.94	0.99

Table 22. Consistency of Cut Scores

Content Area	Grade	Partially Met Expectations Cut	Approached Expectations Cut	Met Expectations Cut	Exceeded Expectations Cut
MATH	3	0.91	0.88	0.88	0.84
	4	0.91	0.88	0.89	0.97
	5	0.93	0.89	0.88	0.90
	6	0.90	0.86	0.89	0.95
	7	0.93	0.85	0.88	0.96
	8	0.87	0.85	0.88	0.94
ELA	3	0.90	0.87	0.87	0.94
	4	0.94	0.89	0.85	0.89
	5	0.94	0.87	0.84	0.93
	6	0.93	0.86	0.85	0.94
	7	0.92	0.86	0.85	0.82
	8	0.92	0.87	0.85	0.87
CSLA	3	0.86	0.85	0.92	0.98
	4	0.94	0.91	0.83	0.95
Science	8		0.92	0.92	0.99

Table 23. Mathematics Grade 3 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	Corr
Item 1	3	605	94.5	5.2	0.3	0.97	0.00	0.97
Item 2	4	604	89.8	9.7	0.5	0.93	0.03	0.93
Item 3, Part B	2	534	97.3	2.7	0.0	0.97	0.01	0.97
Item 4, Part B	3	533	85.2	14.4	0.4	0.94	0.01	0.94
Item 5, Part C	4	534	96.3	2.5	1.2	0.96	0.01	0.96

Table 24. Mathematics Grade 4 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	Corr
Item 1, Part D	3	4261	95.1	4.7	0.2	0.97	0.00	0.97
Item 2, Part B	3	4267	93.0	6.0	1.0	0.97	0.00	0.97
Item 3	3	4644	88.2	11.2	0.6	0.89	0.01	0.89
Item 4, Part A	2	4638	90.6	9.3	0.1	0.91	0.01	0.91
Item 4, Part B	2	4638	94.9	5.1	0.1	0.95	0.00	0.95
Item 5	3	4633	90.9	8.6	0.5	0.94	0.00	0.94

Table 25. Mathematics Grade 5 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	Corr
Item 1, Part A	3	599	93.9	5.9	0.2	0.97	0.02	0.97
Item 1, Part B	3	599	94.9	4.4	0.7	0.97	0.02	0.97
Item 2	3	599	95.1	4.7	0.2	0.96	0.00	0.96
Item 3, Part B	3	539	95.5	4.5	0.0	0.95	0.02	0.95
Item 4	4	598	93.3	6.5	0.2	0.98	0.01	0.98
Item 5, Part B	2	599	97.8	2.2	0.0	0.98	0.00	0.98

Table 26. Mathematics Grade 6 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	Corr
Item 1	4	4481	83.8	14.6	1.6	0.96	0.00	0.96
Item 2	3	4488	86.4	13.1	0.5	0.95	0.00	0.95
Item 3	3	4487	82.0	16.7	1.3	0.89	0.00	0.89
Item 4	4	4487	87.4	10.9	1.7	0.93	0.00	0.93
Item 5, Part A	3	4494	89.1	10.6	0.3	0.93	0.00	0.93
Item 5, Part B	3	4494	89.1	10.5	0.4	0.93	0.00	0.93

Table 27. Mathematics Grade 7 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	Corr
Item 1, Part A	3	550	94.6	4.3	1.1	0.95	0.00	0.95
Item 1, Part B	3	550	93.5	5.4	1.1	0.96	0.02	0.96
Item 2	3	549	95.2	4.6	0.2	0.98	0.00	0.98
Item 3	4	554	89.5	8.8	1.7	0.96	0.00	0.96
Item 4, Part B	3	553	87.4	11.9	0.8	0.90	0.01	0.90
Item 5	3	553	84.8	14.3	0.9	0.81	0.02	0.81

Table 28. Mathematics Grade 8 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	Corr
Item 1, Part A	4	3933	86.4	12.4	1.2	0.96	0.01	0.96
Item 1, Part B	2	3933	90.7	9.1	0.2	0.93	0.00	0.93
Item 2, Part B	3	3587	87.5	11.9	0.6	0.85	0.02	0.85
Item 3, Part B	2	3596	95.9	4.0	0.1	0.90	0.00	0.90
Item 4	4	3921	87.4	11.4	1.1	0.88	0.00	0.88
Item 5	3	3922	90.2	9.3	0.5	0.89	0.00	0.89

Table 29. ELA Grade 3 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	Corr
PCR 1 WE	3	4536	86.5	13.5	0.0	0.87	0.04	0.87
PCR 1 WKL	3	4536	91.5	8.5	0.0	0.87	0.02	0.88
PCR 2 WE	3	4522	83.3	16.6	0.0	0.81	0.01	0.81
PCR 2 WKL	3	4522	83.3	16.6	0.0	0.81	0.01	0.81

Table 30. ELA Grade 4 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	Corr
PCR 1 WE	3	576	85.3	14.5	0.2	0.89	0.00	0.89
PCR 1 WKL	3	576	86.5	13.5	0.0	0.89	0.02	0.89
PCR 2 WE	4	579	92.8	7.2	0.0	0.93	0.00	0.93
PCR 2 WKL	3	579	92.8	7.2	0.0	0.93	0.00	0.93

Table 31. ELA Grade 5 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
PCR 1 WE	3	4699	84.1	15.9	0.0	0.86	0.00	0.86
PCR 1 WKL	3	4699	85.6	14.4	0.0	0.88	0.01	0.88
PCR 2 WE	4	4701	83.6	16.4	0.0	0.81	0.00	0.81
PCR 2 WKL	3	4701	83.6	16.4	0.0	0.81	0.00	0.81

Table 32. ELA Grade 6 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non- Adjacent	Kappa	MD	CORR
PCR 1 WE	4	542	82.6	16.9	0.6	0.83	0.03	0.83
PCR 1 WKL	3	542	82.6	16.9	0.6	0.83	0.03	0.83
PCR 2 WE	4	547	88.2	11.8	0.0	0.88	0.01	0.88
PCR 2 WKL	3	547	90.4	9.6	0.0	0.91	0.01	0.91

Table 33. ELA Grade 7 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
PCR 1 WE	4	4302	79.5	20.5	0.0	0.85	0.03	0.85
PCR 1 WKL	3	4302	79.5	20.5	0.0	0.85	0.03	0.85
PCR 2 WE	4	4297	80.1	19.8	0.1	0.89	0.01	0.89
PCR 2 WKL	3	4297	75.9	23.7	0.4	0.86	0.00	0.86

Table 34. ELA Grade 8 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
PCR 1 WE	4	448	82.4	17.6	0.0	0.91	0.03	0.91
PCR 1 WKL	3	448	82.8	16.0	1.1	0.90	0.01	0.90
PCR 2 WE	4	450	93.0	7.0	0.0	0.96	0.02	0.96
PCR 2 WKL	3	450	93.0	7.0	0.0	0.96	0.02	0.96

Table 35. CSLA Grade 3 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
PCR 1 WE	3	85	86.4	13.6	0.0	0.90	0.04	0.90
PCR 1 WKL	3	85	86.4	13.6	0.0	0.90	0.04	0.90
PCR 2 WE	3	85	91.0	7.7	1.3	0.93	0.05	0.93
PCR 2 WKL	3	85	83.3	14.1	2.6	0.90	0.04	0.90

Table 36. CSLA Grade 4 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
PCR 1 WE	3	10	100.0	0.0	0.0	1.00	0.00	1.00
PCR 1 WKL	3	10	100.0	0.0	0.0	1.00	0.00	1.00
PCR 2 WE	4	11	100.0	0.0	0.0	1.00	0.00	1.00
PCR 2 WKL	3	11	100.0	0.0	0.0	1.00	0.00	1.00

Table 37. Science Grade 8 Operational Rater Agreement Statistics

Item	Max Points	N	Exact	Adjacent	Non-Adjacent	Kappa	MD	CORR
1	2	3,788	91.9	8.0	0.1	0.95	0.01	0.95
2	2	3,788	92.5	7.5	0.0	0.94	0.01	0.94
3	2	3,551	91.8	8.2	0.0	0.95	0.00	0.95
4	2	3,551	91.4	8.6	0.0	0.87	0.00	0.87
5	2	3,551	98.4	1.6	0.0	0.99	0.00	0.99
6	2	3,551	92.7	7.3	0.0	0.90	0.00	0.90
7	2	3,551	96.2	3.8	0.0	0.96	0.00	0.96
8	2	3,550	92.6	7.4	0.0	0.91	0.00	0.91
9	2	3,788	89.6	9.2	1.2	0.86	0.02	0.86
10	3	3,788	89.9	10.0	0.1	0.97	0.00	0.97
11	3	3,788	88.3	11.7	0.1	0.95	0.01	0.95
12	2	3,788	93.8	6.0	0.2	0.96	0.00	0.96
13	3	3,788	83.7	15.6	0.7	0.79	0.02	0.80
14	2	3,551	89.8	10.2	0.0	0.93	0.01	0.93
15	2	3,549	89.8	10.1	0.1	0.90	0.00	0.90
16	2	3,550	89.7	10.0	0.3	0.87	0.00	0.87
17	2	3,551	90.6	9.0	0.4	0.93	0.01	0.93

Table 38. Mathematics N-Count by Form

Form	Grade					
	3	4	5	6	7	8
Online	4,461	34,762	4,597	37,458	4,700	33,509
Spanish Online	36	521	8	110	3	111
Paper	601	3,710	576	3,669	479	3,319
Spanish Paper	1	47	2	3	0	7
Text-to-Speech	843	7,739	752	3,567	327	2,252
Assistive Technology	0	4	0	12	1	7
Total	5,942	46,783	5,935	44,819	5,510	39,205

Table 39. ELA and CSLA N-Count by Form

Content Area	Form	Grade					
		3	4	5	6	7	8
ELA	Online	41,282	5,201	43,383	4,835	39,652	4,099
	Paper	3,855	517	3,405	596	3,168	351
	Text-to-Speech	44	4	116	7	99	12
	Assistive Technology	10	3	13	1	15	1
	Total	45,191	5,725	46,917	5,439	42,934	4,463
CSLA	Total	837	53				

Table 40. Science N-Count by Form

Form	Grade
	8
Online	34,506
Spanish Online	101
Paper	2,344
Spanish Paper	7
Large Print	1
Braille	2
Total	36,961

Table 41. Mathematics Demographic Distributions

Subgroup	Grade					
	3	4	5	6	7	8
No IEP	5,304	41,058	5,292	39,672	4,940	35,234
IEP	638	5,725	643	5,147	570	3,971
No Accommodation	4,950	37,170	5,006	39,265	4,937	35,063
Accommodation	992	9,613	929	5,554	573	4,142
Am. Indian/Alaska Native	33	267	38	244	37	213
Asian	250	1,516	231	1,364	212	1,220
Black	119	1,749	161	1,626	124	1,296
Hispanic	1,442	15,294	1,566	15,411	1,398	13,683
White	3,793	25,549	3,680	24,131	3,514	21,083
Hawaiian/Pacific Islander	n/a	128	n/a	94	n/a	93
Two or More Races	295	2,271	249	1,946	218	1,612
Missing*	n/a	n/a	n/a	n/a	n/a	n/a
No Economic Disadvantage	1,937	16,423	1,979	15,710	1,481	13,108
Economic Disadvantage	4,005	30,360	3,956	29,109	4,029	26,097
Female	2,821	22,790	2,908	21,536	2,671	18,335
Male	3,121	23,993	3,027	23,283	2,839	20,870
Language Proficiency NA	5,298	38,469	5,192	36,449	4,869	32,773
Language Proficiency NEP	96	1,125	53	549	33	661
Language Proficiency LEP	414	5,038	338	3,409	249	2,653
Language Proficiency FEP	134	2,151	352	4,412	359	3,118
Not Migrant	5,922	46,573	5,907	44,600	5,493	39,012
Migrant	20	210	28	219	17	193

*n-count less than 16

Table 42. ELA Demographic Distributions

Subgroup	Grade					
	3	4	5	6	7	8
No IEP	40,174	5,116	41,316	4,851	38,230	4,014
IEP	5,017	609	5,601	588	4,704	449
No Accommodation	42,177	5,299	42,967	5,066	39,318	4,149
Accommodation	3,014	426	3,950	373	3,616	314
Am. Indian/Alaska Native	273	47	272	32	243	26
Asian	1,459	233	1,391	188	1,292	143
Black	1,713	163	1,792	114	1,537	73
Hispanic	14,028	1,468	15,781	1,393	14,731	1,175
White	25,355	3,524	25,364	3,471	23,194	2,848
Hawaiian/Pacific* Islander	118	n/a	105	n/a	94	n/a
Two or More Races	2,233	277	2,201	227	1,837	189
Missing*	n/a	0	n/a	0	n/a	0
No Economic Disadvantage	29,341	3,890	30,079	3,936	28,227	3,260
Economic Disadvantage	15,850	1,835	16,838	1,503	14,707	1,203
Female	21,842	2,872	22,911	2,613	20,305	2,156
Male	23,349	2,853	24,006	2,826	22,629	2,307
Language Proficiency NA	38,219	5,024	38,332	4,829	35,127	4,021
Language Proficiency NEP	1,149	54	624	31	593	33
Language Proficiency LEP	4,804	418	4,339	290	3,087	189
Language Proficiency FEP	1,019	229	3,622	289	4,127	220
Not Migrant	45,000	5,708	46,693	5,420	42,738	4,446
Migrant	191	17	224	19	196	17

*n-count less than 16

Table 43. CSLA Demographic Distributions

Subgroup	Grade	
	3	4
No IEP	772	50
IEP*	65	n/a
No Accommodation	0	0
Accommodation	837	53
Am. Indian/Alaska Native*	n/a	n/a
Asian		
Black		
Hispanic	831	53
White*	n/a	n/a
Hawaiian/Pacific Islander		
Two or More Races		
Missing		
No Economic Disadvantage*	245	n/a
Economic Disadvantage	592	42
Female	395	32
Male	442	21
Language Proficiency NA		
Language Proficiency NEP*	289	n/a
Language Proficiency LEP	548	46
Language Proficiency FEP		
Not Migrant	831	53
Migrant*	n/a	n/a

*n-count less than 16

Table 44. Science Demographic Distributions

Subgroup	Grade
	8
No IEP	33,238
IEP	3,723
No Accommodation	33,676
Accommodation	3,285
Am. Indian/Alaska Native	205
Asian	1,150
Black	1,164
Hispanic	12,952
White	19,882
Hawaiian/Pacific Islander	92
Two or More Races	1,511
Missing*	n/a
No Economic Disadvantage	20,809
Economic Disadvantage	12,295
Female	17,241
Male	19,720
Language Proficiency NA	28,696
Language Proficiency NEP	625
Language Proficiency LEP	2,479
Language Proficiency FEP	2,972
Not Migrant	36,773
Migrant	188

*n-count less than 16

Table 45. Mathematics Grade 3 Operational Item Parameter Estimates

Item	Item Type	Model	A	B	D1	D2	D3	D4	D5	D6	D7
1	XI	GPC	0.464	0.388	0	0.855	0.583	-1.438			
2	XI	GPC	0.455	1.709	0	2.715	0.282	-0.534	-2.463		
3	XI	GPC	0.708	0.955	0	1.543	-1.543				
4	XI	GPC	0.932	0.252	0	0.509	-0.509				
5	XI	GPC	0.423	-0.109	0	1.089	-1.089				
6	XI	GPC	0.694	0.156	0	1.332	-1.164	-0.168			
7	XI	GPC	0.428	0.690	0	1.361	-0.803	0.395	-0.953		
8	XI	GPC	0.644	0.619	0	2.276	0.798	-0.716	0.402	-2.250	-0.510
9	XI	2PL	0.612	-1.369							
10	XI	2PL	0.994	-0.978							
11	XI	2PL	0.893	0.092							
12	XI	2PL	1.124	0.203							
13	XI	2PL	0.787	0.145							
14	XI	2PL	0.471	-0.130							
15	XI	2PL	0.689	-0.840							
16	XI	2PL	0.601	1.206							
17	XI	2PL	0.415	-2.233							
18	XI	2PL	0.981	0.145							
19	XI	2PL	0.616	1.283							
20	XI	2PL	0.628	-0.824							
21	XI	2PL	1.117	-0.256							
22	XI	2PL	1.094	0.161							
23	XI	2PL	1.104	-0.483							
24	SR	2PL	0.696	-1.703							
25	SR	2PL	0.914	-1.309							
26	SR	2PL	0.509	-0.236							
27	SR	2PL	0.838	-1.325							
28	SR	2PL	0.629	-0.240							
29	SR	2PL	0.791	-1.646							
30	SR	2PL	0.463	0.032							
31	SR	2PL	0.859	-0.887							
32	SR	2PL	0.586	-1.999							
33	SR	2PL	0.880	-0.378							

Table 46. Mathematics Grade 4 Operational Item Parameter Estimates

Item	Item Type	Model	A	B	D1	D2	D3	D4	D5	D6	D7
1	XI	GPC	0.394	1.395	0	1.287	-0.497	-0.790			
2	XI	GPC	0.706	0.939	0	0.471	-0.403	-0.068			
3	XI	GPC	0.801	0.573	0	-0.218	0.218				
4	XI	GPC	0.869	-0.150	0	0.520	-0.520				
5	XI	GPC	0.404	-0.335	0	0.751	-0.751				
6	XI	GPC	0.484	1.002	0	1.237	-1.237				
7	XI	GPC	0.544	0.687	0	0.973	-0.973				
8	XI	GPC	0.708	-0.712	0	0.377	-0.377				
9	XI	GPC	0.444	0.083	0	0.923	-2.323	1.014	0.386		
10	XI	GPC	0.733	0.550	0	0.385	0.442	-0.209	-0.618		
11	XI	GPC	0.703	0.341	0	1.800	0.956	0.206	-0.354	-0.806	-1.802
12	XI	2PL	0.970	0.978							
13	XI	2PL	0.868	0.078							
14	XI	2PL	1.111	0.853							
15	XI	2PL	1.317	1.064							
16	XI	2PL	0.533	-0.769							
17	XI	2PL	0.801	0.111							
18	XI	2PL	1.267	0.354							
19	XI	2PL	0.986	-0.612							
20	XI	2PL	0.450	0.267							
21	XI	2PL	0.803	-0.693							
22	XI	2PL	0.926	0.108							
23	XI	2PL	0.953	-0.131							
24	SR	2PL	0.575	0.294							
25	SR	2PL	0.779	-0.900							
26	SR	2PL	0.820	-1.142							
27	SR	2PL	1.271	-1.046							
28	SR	2PL	0.693	0.123							
29	SR	2PL	0.823	-1.600							
30	SR	2PL	0.903	-0.155							

Table 47. Mathematics Grade 5 Operational Item Parameter Estimates

Item	Item Type	Model	A	B	D1	D2	D3	D4	D5	D6	D7
1	CR	GPC	0.723	1.373	0	0.934	-0.034	-0.900			
2	CR	GPC	0.493	1.032	0	-0.185	0.760	-0.528	-0.047		
3	CR	GPC	0.851	-0.385	0	0.344	-0.344				
4	XI	GPC	0.580	0.365	0	0.493	-0.493				
5	XI	GPC	0.580	-0.339	0	0.579	-0.579				
6	XI	GPC	0.971	0.232	0	0.395	-0.395				
7	XI	GPC	0.978	-0.056	0	0.373	-0.373				
8	XI	GPC	0.640	0.842	0	0.122	-0.122				
9	XI	GPC	0.709	0.794	0	0.742	-0.397	-0.345			
10	XI	GPC	0.803	1.135	0	1.249	0.101	-0.197	-1.153		
11	XI	GPC	0.522	1.362	0	-0.624	2.848	-1.030	-0.368	0.034	-0.860
12	XI	2PL	0.796	-0.304							
13	XI	2PL	0.501	1.021							
14	XI	2PL	0.676	-1.277							
15	XI	2PL	0.876	0.233							
16	XI	2PL	1.064	0.261							
17	XI	2PL	0.508	-2.591							
18	XI	2PL	0.925	-0.211							
19	XI	2PL	0.740	0.580							
20	XI	2PL	0.627	-0.097							
21	SR	2PL	0.616	0.767							
22	SR	2PL	1.049	-0.923							
23	SR	2PL	0.421	-1.819							
24	SR	2PL	0.849	-0.812							
25	SR	2PL	0.524	-1.030							
26	SR	2PL	0.488	1.259							
27	SR	2PL	1.054	-0.969							
28	SR	2PL	0.642	-0.344							
29	SR	2PL	0.538	0.037							
30	SR	2PL	0.659	0.150							

Table 48. Mathematics Grade 6 Operational Item Parameter Estimates

Item	Item Type	Model	A	B	D1	D2	D3	D4	D5	D6	D7
1	CR	GPC	0.722	-0.077	0	0.285	0.667	-0.951			
2	CR	GPC	0.575	0.623	0	0.172	0.820	-0.991			
3	CR	GPC	0.567	0.438	0	0.132	0.751	1.016	-1.899		
4	CR	GPC	0.525	1.069	0	-0.553	1.468	-0.739	-0.176		
5	XI	GPC	0.387	0.254	0	1.205	-1.205				
6	XI	GPC	0.680	-0.639	0	0.658	-0.658				
7	XI	GPC	1.206	0.699	0	0.314	-0.314				
8	XI	GPC	0.506	0.048	0	0.746	-0.746				
9	XI	GPC	0.478	0.399	0	1.487	0.225	-0.720	-0.991		
10	XI	GPC	0.506	0.840	0	0.887	0.660	0.029	-0.559	-0.109	-0.908
11	XI	2PL	0.421	1.660							
12	XI	2PL	0.839	-0.746							
13	XI	2PL	0.704	1.295							
14	XI	2PL	0.562	-0.882							
15	XI	2PL	0.762	2.042							
16	XI	2PL	0.585	1.713							
17	XI	2PL	0.719	0.425							
18	XI	2PL	0.796	0.552							
19	XI	2PL	0.862	0.367							
20	XI	2PL	0.884	0.733							
21	XI	2PL	1.034	0.466							
22	SR	2PL	1.164	0.535							
23	SR	2PL	0.664	-0.350							
24	SR	2PL	0.468	0.551							
25	SR	2PL	0.206	1.078							
26	SR	2PL	0.705	0.669							
27	SR	2PL	0.638	0.515							
28	SR	2PL	0.863	0.511							

Table 49. Mathematics Grade 7 Operational Item Parameter Estimates

Item	Item Type	Model	A	B	D1	D2	D3	D4	D5	D6	D7
1	CR	GPC	0.694	0.826	0	0.156	0.375	-0.531			
2	CR	GPC	0.814	1.552	0	1.102	-0.018	-1.084			
3	CR	GPC	0.575	0.889	0	0.216	-0.505	0.244	0.046		
4	XI	GPC	0.366	1.963	0	-1.175	1.175				
5	XI	GPC	0.981	1.184	0	0.210	-0.210				
6	XI	GPC	0.372	0.681	0	0.657	-0.657				
7	XI	GPC	1.012	1.598	0	0.487	-0.487				
8	XI	GPC	0.513	1.159	0	1.552	0.084	-0.600	-1.036		
9	XI	GPC	0.518	1.033	0	1.425	0.216	-0.434	-1.207		
10	XI	GPC	0.598	0.804	0	1.420	-0.054	0.491	0.017	-0.703	-1.171
11	XI	2PL	1.031	-0.114							
12	XI	2PL	0.750	1.275							
13	XI	2PL	0.842	-0.047							
14	XI	2PL	0.964	1.280							
15	XI	2PL	1.184	1.420							
16	XI	2PL	0.534	0.838							
17	XI	2PL	1.450	0.869							
18	XI	2PL	0.399	0.027							
19	XI	2PL	1.041	-0.780							
20	XI	2PL	0.558	0.121							
21	SR	2PL	0.555	1.625							
22	SR	2PL	0.454	-0.962							
23	SR	2PL	0.279	1.924							
24	SR	2PL	0.654	1.069							
25	SR	2PL	0.826	0.791							
26	SR	2PL	0.252	0.674							
27	SR	2PL	0.596	-0.242							
28	SR	2PL	0.366	1.908							
29	SR	2PL	0.669	-0.652							

Table 50. Mathematics Grade 8 Operational Item Parameter Estimates

Item	Item Type	Model	A	B	D1	D2	D3	D4	D5	D6	D7
1	CR	GPC	0.650	2.423	0	0.236	0.249	-0.485			
2	CR	GPC	0.694	2.260	0	0.382	0.487	0.306	-1.174		
3	CR	GPC	0.392	0.297	0	0.973	-0.973				
4	XI	GPC	0.712	0.753	0	0.766	-0.766				
5	XI	GPC	0.369	1.800	0	1.633	-1.633				
6	XI	GPC	0.559	0.837	0	0.362	-0.362				
7	XI	GPC	0.494	0.311	0	0.728	-0.728				
8	XI	GPC	0.898	1.680	0	0.936	-0.290	-0.647			
9	XI	GPC	0.397	0.754	0	1.167	-0.541	-0.149	-0.477		
10	XI	GPC	0.717	1.605	0	1.717	0.057	-0.243	-1.531		
11	XI	GPC	0.404	0.745	0	-0.427	1.777	0.595	-0.268	-0.439	-1.238
12	XI	2PL	1.174	0.325							
13	XI	2PL	1.336	1.477							
14	XI	2PL	1.202	1.799							
15	XI	2PL	0.674	1.114							
16	XI	2PL	1.237	-0.975							
17	XI	2PL	0.907	0.967							
18	SR	2PL	0.321	0.916							
19	SR	2PL	0.770	0.281							
20	SR	2PL	0.529	1.042							
21	SR	2PL	0.495	1.344							
22	SR	2PL	0.680	-1.703							
23	SR	2PL	0.633	-1.005							
24	SR	2PL	0.518	1.671							
25	SR	2PL	0.700	0.983							
26	SR	2PL	0.358	-0.129							
27	SR	2PL	0.314	-0.184							
28	SR	2PL	0.469	-0.360							

Table 51. ELA Grade 3 Operational Item Parameter Estimates

Item	Item Type	Model	A	B	D1	D2	D3	D4	Misfit Flag
PCR 1 WE	CR	GPC	0.806	1.892	0	2.038	-0.294	-1.744	No
PCR 1 WKL	CR	GPC	0.697	1.962	0	1.725	0.185	-1.910	No
PCR 2 WE	CR	GPC	1.188	1.574	0	1.727	-0.225	-1.502	Yes
PCR 2 WKL	CR	GPC	0.859	1.799	0	1.837	-0.308	-1.529	No
5	XI	GPC	0.333	1.805	0	-0.565	0.565		Yes
6	XI	GPC	0.320	0.827	0	-0.162	0.162		No
7	XI	GPC	0.218	1.878	0	-0.193	0.193		No
8	XI	GPC	0.531	-0.272	0	0.750	-0.750		No
9	XI	GPC	0.594	0.375	0	0.810	-0.810		Yes
10	XI	GPC	0.622	-1.220	0	-2.810	2.810		Yes
11	XI	GPC	0.580	-0.493	0	-1.500	1.500		Yes
12	XI	GPC	0.567	-0.677	0	0.194	-0.194		Yes
13	XI	GPC	0.463	0.388	0	-0.517	0.517		No
14	XI	GPC	0.608	-0.902	0	0.590	-0.590		No
15	XI	GPC	0.560	0.779	0	1.174	-1.174		Yes
16	XI	GPC	0.417	0.081	0	-1.039	1.039		Yes
17	XI	GPC	0.563	0.332	0	0.236	-0.236		Yes
18	XI	GPC	0.566	0.549	0	0.114	-0.114		Yes
19	XI	GPC	0.591	-0.551	0	-0.223	0.223		No
20	XI	GPC	0.551	0.085	0	-1.533	1.533		Yes
21	XI	GPC	0.414	-0.139	0	-0.755	0.755		Yes
22	XI	GPC	0.534	0.701	0	-2.082	2.082		Yes
23	XI	GPC	0.854	0.167	0	-0.103	0.103		No

Table 52. ELA Grade 4 Operational Item Parameter Estimates

Item	Item Type	Model	A	B	D1	D2	D3	D4	D5
PCR 1 WE	CR	GPC	0.680	1.279	0	1.329	-0.175	-1.153	
PCR 1 WKL	CR	GPC	0.736	1.248	0	1.398	-0.109	-1.289	
PCR 2 WE	CR	GPC	0.670	1.633	0	2.550	0.340	-0.956	-1.935
PCR 2 WKL	CR	GPC	0.629	1.036	0	1.660	-0.174	-1.486	
5	XI	GPC	0.310	-0.731	0	-0.910	0.910		
6	XI	GPC	0.255	1.680	0	0.427	-0.427		
7	XI	GPC	0.421	-0.059	0	-0.164	0.164		
8	XI	GPC	0.430	-0.186	0	0.083	-0.083		
9	XI	GPC	0.512	0.142	0	1.484	-1.484		
10	XI	GPC	0.561	-1.148	0	-1.597	1.597		
11	XI	GPC	0.251	1.545	0	-0.157	0.157		
12	XI	GPC	0.986	-0.409	0	0.727	-0.727		
13	XI	GPC	0.605	-0.011	0	0.217	-0.217		
14	XI	GPC	0.201	2.064	0	-3.301	3.301		
15	XI	GPC	0.712	0.143	0	0.613	-0.613		
16	XI	GPC	0.334	0.286	0	0.185	-0.185		
17	XI	GPC	0.570	-1.136	0	0.632	-0.632		
18	XI	GPC	0.515	0.507	0	-2.785	2.785		
19	XI	GPC	0.215	2.363	0	-0.041	0.041		
20	XI	GPC	0.466	0.377	0	-1.807	1.807		
21	XI	GPC	0.523	-0.329	0	0.092	-0.092		
22	XI	GPC	0.356	-0.679	0	-0.363	0.363		
23	XI	GPC	0.330	-1.054	0	-3.780	3.780		
24	XI	GPC	0.868	0.151	0	0.110	-0.110		
25	XI	GPC	0.929	-0.518	0	0.557	-0.557		

Table 53. ELA Grade 5 Operational Item Parameter Estimates

Item	Item Type	Model	A	B	D1	D2	D3	D4	D5	Misfit Flag
PCR 1 WE	CR	GPC	0.860	1.331	0	1.148	-0.140	-1.008		Yes
PCR 1 WKL	CR	GPC	0.848	1.452	0	0.944	0.043	-0.987		No
PCR 2 WE	CR	GPC	0.693	2.257	0	2.366	-0.027	-1.128	-1.211	No
PCR 2 WKL	CR	GPC	0.820	1.699	0	1.860	-0.701	-1.158		No
5	XI	GPC	0.334	0.575	0	-1.371	1.371			Yes
6	XI	GPC	0.614	0.995	0	0.615	-0.615			No
7	XI	GPC	0.268	0.654	0	-2.514	2.514			Yes
8	XI	GPC	0.271	1.215	0	-2.565	2.565			Yes
9	XI	GPC	0.251	1.300	0	1.238	-1.238			Yes
10	XI	GPC	0.188	-0.488	0	-2.208	2.208			No
11	XI	GPC	0.462	0.054	0	2.018	-2.018			Yes
12	XI	GPC	0.431	0.962	0	-0.513	0.513			Yes
13	XI	GPC	0.349	1.348	0	-1.580	1.580			Yes
14	XI	GPC	0.283	1.874	0	-1.460	1.460			No
15	XI	GPC	0.405	0.323	0	0.761	-0.761			No
16	XI	GPC	0.374	0.760	0	0.013	-0.013			No
17	XI	GPC	0.520	0.604	0	0.846	-0.846			No
18	XI	GPC	0.734	-0.745	0	-0.260	0.260			Yes
19	XI	GPC	0.592	0.328	0	0.743	-0.743			No
20	XI	GPC	0.414	0.496	0	-1.827	1.827			Yes
21	XI	GPC	0.492	-0.265	0	1.195	-1.195			No
22	XI	GPC	0.240	-1.332	0	2.043	-2.043			No
23	XI	GPC	0.553	-0.095	0	0.572	-0.572			Yes
24	XI	GPC	0.444	0.092	0	-1.207	1.207			Yes

Table 54. ELA Grade 6 Operational Item Parameter Estimates

Item	Item Type	Model	A	B	D1	D2	D3	D4	D5
PCR 1 WE	CR	GPC	0.829	1.698	0	2.485	0.382	-0.967	-1.900
PCR 1 WKL	CR	GPC	0.896	1.005	0	1.751	-0.091	-1.660	
PCR 2 WE	CR	GPC	0.867	1.807	0	1.713	0.129	-0.656	-1.187
PCR 2 WKL	CR	GPC	0.852	1.341	0	1.314	-0.249	-1.064	
5	XI	GPC	0.270	1.451	0	-1.631	1.631		
6	XI	GPC	0.328	0.185	0	-2.077	2.077		
7	XI	GPC	0.350	0.994	0	-0.714	0.714		
8	XI	GPC	0.536	-1.104	0	0.322	-0.322		
9	XI	GPC	0.297	1.740	0	1.263	-1.263		
10	XI	GPC	0.549	-0.629	0	-1.341	1.341		
11	XI	GPC	0.325	1.238	0	-0.122	0.122		
12	XI	GPC	0.242	-0.327	0	-4.508	4.508		
13	XI	GPC	0.371	0.938	0	0.998	-0.998		
14	XI	GPC	0.406	-0.081	0	1.533	-1.533		
15	XI	GPC	0.570	-0.142	0	0.886	-0.886		
16	XI	GPC	0.351	0.500	0	0.342	-0.342		
17	XI	GPC	0.534	1.124	0	-0.059	0.059		
18	XI	GPC	0.445	-0.534	0	-1.232	1.232		
19	XI	GPC	0.444	0.145	0	-1.140	1.140		
20	XI	GPC	0.663	-0.093	0	0.210	-0.210		
21	XI	GPC	0.378	0.216	0	-1.528	1.528		
22	XI	GPC	0.529	0.108	0	-0.825	0.825		
23	XI	GPC	0.354	-0.849	0	-0.812	0.812		
24	XI	GPC	0.265	-0.245	0	1.597	-1.597		
25	XI	GPC	0.269	0.263	0	-2.576	2.576		
26	XI	GPC	0.204	0.873	0	-2.239	2.239		

Table 55. ELA Grade 7 Operational Item Parameter Estimates

Item	Item Type	Model	A	B	D1	D2	D3	D4	D5	Misfit Flag
PCR 1 WE	CR	GPC	1.048	1.589	0	1.718	0.321	-0.649	-1.390	Yes
PCR 1 WKL	CR	GPC	1.049	1.161	0	1.535	-0.252	-1.283		Yes
PCR 2 WE	CR	GPC	0.766	1.234	0	1.994	0.514	-0.724	-1.783	Yes
PCR 2 WKL	CR	GPC	0.830	0.638	0	1.063	0.093	-1.155		No
5	XI	GPC	0.422	-0.492	0	-0.564	0.564			Yes
6	XI	GPC	0.303	1.213	0	-0.592	0.592			Yes
7	XI	GPC	0.469	0.810	0	-0.625	0.625			Yes
8	XI	GPC	0.615	0.472	0	1.410	-1.410			No
9	XI	GPC	0.415	0.283	0	-0.971	0.971			Yes
10	XI	GPC	0.434	0.716	0	2.375	-2.375			No
11	XI	GPC	0.734	-0.188	0	0.427	-0.427			No
12	XI	GPC	0.608	-0.633	0	-1.168	1.168			Yes
13	XI	GPC	0.314	0.986	0	-0.684	0.684			Yes
14	XI	GPC	0.737	0.211	0	1.178	-1.178			No
15	XI	GPC	0.272	0.384	0	-0.646	0.646			No
16	XI	GPC	0.358	-0.336	0	-0.755	0.755			No
17	XI	GPC	0.254	-0.873	0	-3.606	3.606			Yes
18	XI	GPC	0.522	-0.867	0	1.248	-1.248			No
19	XI	GPC	0.215	0.119	0	-4.689	4.689			Yes
20	XI	GPC	0.549	0.436	0	1.117	-1.117			No
21	XI	GPC	0.455	-1.735	0	-0.560	0.560			No
22	XI	GPC	0.192	1.827	0	0.096	-0.096			No
23	XI	GPC	0.173	2.674	0	-0.685	0.685			Yes
24	XI	GPC	0.395	0.550	0	-0.580	0.580			Yes
25	XI	GPC	0.353	0.269	0	1.936	-1.936			No
26	XI	GPC	0.350	1.537	0	0.679	-0.679			No
27	XI	GPC	0.317	1.256	0	-0.897	0.897			Yes

Table 56. ELA Grade 8 Operational Item Parameter Estimates

Item	Item Type	Model	A	B	D1	D2	D3	D4	D5
PCR 1 WE	CR	GPC	0.734	0.803	0	1.421	0.590	-0.609	-1.402
PCR 1 WKL	CR	GPC	0.805	0.266	0	0.945	0.123	-1.068	
PCR 2 WE	CR	GPC	0.705	0.886	0	1.506	0.715	-0.752	-1.469
PCR 2 WKL	CR	GPC	0.780	0.365	0	0.957	0.121	-1.078	
5	XI	GPC	0.948	-0.233	0	0.799	-0.799		
6	XI	GPC	0.464	-0.085	0	-0.325	0.325		
7	XI	GPC	0.370	0.345	0	0.316	-0.316		
8	XI	GPC	0.467	0.465	0	1.382	-1.382		
9	XI	GPC	0.373	0.562	0	-1.714	1.714		
10	XI	GPC	0.276	1.439	0	-1.936	1.936		
11	XI	GPC	0.457	0.463	0	0.945	-0.945		
12	XI	GPC	0.505	-1.117	0	1.637	-1.637		
13	XI	GPC	0.485	0.151	0	-1.009	1.009		
14	XI	GPC	0.301	0.959	0	-3.388	3.388		
15	XI	GPC	0.399	-0.159	0	-0.201	0.201		
16	XI	GPC	0.300	2.882	0	2.413	-2.413		
17	XI	GPC	0.321	0.321	0	-3.286	3.286		
18	XI	GPC	0.465	-0.806	0	1.348	-1.348		
19	XI	GPC	0.290	0.114	0	-1.488	1.488		
20	XI	GPC	0.247	1.225	0	-5.939	5.939		
21	XI	GPC	0.364	0.836	0	-3.283	3.283		
22	XI	GPC	0.738	-0.581	0	1.122	-1.122		
23	XI	GPC	0.256	1.601	0	-0.698	0.698		
24	XI	GPC	0.480	-0.133	0	-1.326	1.326		
25	XI	GPC	0.316	-0.353	0	-0.505	0.505		
26	XI	GPC	0.551	-0.604	0	-1.290	1.290		
27	XI	GPC	0.222	1.174	0	-5.430	5.430		

Table 57. CSLA Grade 3 Operational Item Parameter Estimates

Item	Item Type	Model	B	D1	D2	D3	D4
1	SR	RPCM	-0.7121	0	1.4121	-1.4121	
2	SR	RPCM	0.1525	0	-0.7696	0.7696	
3	SR	RPCM	-0.5164	0	0.7692	-0.7692	
4	SR	RPCM	0.3508	0	1.0613	-1.0613	
5	SR	RPCM	-0.364	0	0.3838	-0.3838	
6	SR	RPCM	0.2376	0	0.4636	-0.4636	
7	SR	RPCM	0.6704	0	1.3082	-1.3082	
8	SR	RPCM	0.4992	0	0.5268	-0.5268	
9	SR	RPCM	0.1711	0	-0.0085	0.0085	
10	SR	RPCM	0.8326	0	-0.0031	0.0031	
11	SR	RPCM	-0.4247	0	0.2344	-0.2344	
12	SR	RPCM	-0.1695	0	0.4885	-0.4885	
13	SR	RPCM	-0.3637	0	0.1734	-0.1734	
14	SR	RPCM	-0.3872	0	0.756	-0.756	
15	SR	RPCM	0.0334	0	0.5414	-0.5414	
16	SR	RPCM	0.2214	0	-0.9959	0.9959	
17	SR	RPCM	-0.1386	0	1.0467	-1.0467	
18	SR	RPCM	-0.3212	0	0.3802	-0.3802	
PCR 1 WE	CR	RPCM	0.1656	0	-1.0893	-0.3575	1.4468
PCR 1 WKL	CR	RPCM	-0.3613	0	-0.5366	0.8603	-0.3237
PCR 2 WE	CR	RPCM	0.2176	0	-0.1679	-0.4521	0.62
PCR 2 WKL	CR	RPCM	-0.4087	0	-0.4257	0.5956	-0.1699

Table 58. CSLA Grade 4 Operational Item Parameter Estimates

Item	Item Type	Model	B	D1	D2	D3	D4	D5
1	SR	RPCM	0.4814	0	-0.1194	0.1194		
2	SR	RPCM	0.3642	0	0.5686	-0.5686		
3	SR	RPCM	0.2843	0	0.3436	-0.3436		
4	SR	RPCM	0.3681	0	0.6672	-0.6672		
5	SR	RPCM	-0.8705	0	0.4479	-0.4479		
6	SR	RPCM	-1.2829	0	0.7878	-0.7878		
7	SR	RPCM	-1.0263	0	0.4303	-0.4303		
8	SR	RPCM	-0.9236	0	0.2336	-0.2336		
9	SR	RPCM	-0.2946	0	1.0307	-1.0307		
10	SR	RPCM	-0.4003	0	0.3668	-0.3668		
11	SR	RPCM	-0.3465	0	-0.7149	0.7149		
12	SR	RPCM	-0.3215	0	1.0046	-1.0046		
13	SR	RPCM	0.1249	0	1.2306	-1.2306		
14	SR	RPCM	0.7695	0	0.2747	-0.2747		
15	SR	RPCM	1.5186	0	-0.9698	0.9698		
16	SR	RPCM	0.078	0	1.2504	-1.2504		
17	SR	RPCM	0.5763	0	0.1363	-0.1363		
18	SR	RPCM	-0.3592	0	0.1656	-0.1656		
19	SR	RPCM	0.0731	0	0.7711	-0.7711		
20	SR	RPCM	-0.5376	0	0.7842	-0.7842		
21	SR	RPCM	0.2028	0	0.4053	-0.4053		
PCR 1 WE	CR	RPCM	0.2374	0	-0.7116	-0.9104	-0.0056	1.6276
PCR 1 WKL	CR	RPCM	-0.7427	0	-0.4271	0.5669	-0.1398	
PCR 2 WE	CR	RPCM	0.6911	0	-0.6477	-0.483	1.1307	
PCR 2 WKL	CR	RPCM	-0.7911	0	-1.0217	1.2195	-0.1978	

Table 59. Grade 8 Science Operational Item Parameter Estimates

Item	Item Type	Model	A	B	C	D1	D2	D3	D4
1	CR	GPC	1.003	0.115		0.000	-0.328	0.328	
2	CR	GPC	1.219	0.243		0.000	0.285	-0.285	
3	CR	GPC	0.847	-0.455		0.000	-0.550	0.550	
4	CR	GPC	0.982	1.299		0.000	1.218	-1.218	
5	CR	GPC	0.953	-0.871		0.000	-1.644	1.644	
6	CR	GPC	0.722	1.443		0.000	-0.461	0.461	
7	CR	GPC	1.000	0.863		0.000	0.201	-0.201	
8	CR	GPC	1.075	1.298		0.000	0.070	-0.070	
9	CR	GPC	0.948	0.313		0.000	0.930	-0.930	
10	CR	GPC	0.805	0.072		0.000	-0.344	0.344	
11	CR	GPC	1.250	0.228		0.000	0.014	-0.014	
12	CR	GPC	1.247	0.791		0.000	0.541	-0.541	
13	CR	GPC	1.410	0.829		0.000	0.325	-0.325	
14	CR	GPC	1.176	0.089		0.000	-0.261	0.261	
15	CR	GPC	1.054	0.189		0.000	-0.690	0.163	0.527
16	CR	GPC	1.133	0.613		0.000	-0.114	0.454	-0.341
17	CR	GPC	1.051	1.487		0.000	1.312	-0.340	-0.972
18	SR	3PL	1.119	0.878	0.071				
19	SR	3PL	1.070	0.656	0.123				
20	SR	3PL	0.938	1.173	0.275				
21	SR	3PL	1.281	0.394	0.099				
22	SR	3PL	0.550	-0.264	0.010				
23	SR	3PL	1.364	0.831	0.137				
24	SR	3PL	1.100	0.395	0.250				
25	SR	3PL	0.875	0.655	0.125				
26	SR	3PL	0.618	1.804	0.042				
27	SR	3PL	0.929	0.255	0.345				
28	SR	3PL	0.917	-2.533	0.072				
29	SR	3PL	0.706	0.305	0.029				
30	SR	3PL	1.350	-0.009	0.143				

Table 60. Grade 8 Science Operational Item Parameter Estimates (continued)

Item	Item Type	Model	A	B	C	D1	D2	D3	D4
31	SR	3PL	1.156	-1.095	0.195				
32	SR	3PL	1.284	0.888	0.110				
33	SR	3PL	1.268	-0.469	0.080				
34	SR	3PL	1.095	0.101	0.076				
35	SR	3PL	0.671	-0.922	0.000				
36	SR	3PL	0.784	-0.119	0.012				
37	SR	3PL	1.218	1.270	0.260				
38	SR	3PL	1.221	0.655	0.171				
39	SR	3PL	1.268	-0.171	0.202				
40	SR	3PL	0.818	0.918	0.198				
41	SR	3PL	1.474	-0.280	0.157				
42	XI	2PL	1.030	0.306					
43	XI	2PL	1.308	1.175					
44	XI	2PL	0.721	2.027					
45	XI	2PL	0.737	2.249					
46	XI	3PL	0.618	-0.703	0.029				
47	XI	3PL	1.450	1.569	0.147				
48	XI	3PL	0.937	0.995	0.051				
49	XI	3PL	1.432	0.926	0.064				
50	XI	3PL	1.449	0.623	0.366				
51	XI	3PL	0.693	-0.748	0.001				
52	XI	3PL	0.710	1.618	0.005				
53	XI	3PL	1.216	1.460	0.014				
54	XI	3PL	0.981	1.115	0.121				
55	XI	3PL	1.240	-0.848	0.097				
56	XI	3PL	1.165	-0.148	0.175				
57	XI	3PL	1.161	1.036	0.120				
58	XI	3PL	1.321	0.647	0.018				
59	XI	3PL	1.147	1.719	0.067				

Table 61. Mathematics Grade 3 Scale Score Distribution

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
650	62	1.04	62	1.04	695	34	0.57	739	12.44	740	59	0.99	2839	47.78
651	5	0.08	67	1.13	696	35	0.59	774	13.03	741	65	1.09	2904	48.87
652	9	0.15	76	1.28	697	37	0.62	811	13.65	742	70	1.18	2974	50.05
653	2	0.03	78	1.31	698	41	0.69	852	14.34	743	68	1.14	3042	51.19
654	5	0.08	83	1.40	699	38	0.64	890	14.98	744	73	1.23	3115	52.42
655	4	0.07	87	1.46	700	41	0.69	931	15.67	745	50	0.84	3165	53.26
656	4	0.07	91	1.53	701	38	0.64	969	16.31	746	75	1.26	3240	54.53
657	7	0.12	98	1.65	702	31	0.52	1000	16.83	747	62	1.04	3302	55.57
658	9	0.15	107	1.80	703	34	0.57	1034	17.40	748	60	1.01	3362	56.58
659	4	0.07	111	1.87	704	36	0.61	1070	18.01	749	48	0.81	3410	57.39
660	5	0.08	116	1.95	705	50	0.84	1120	18.85	750	46	0.77	3456	58.16
661	7	0.12	123	2.07	706	29	0.49	1149	19.34	751	57	0.96	3513	59.12
662	10	0.17	133	2.24	707	49	0.82	1198	20.16	752	63	1.06	3576	60.18
663	6	0.10	139	2.34	708	42	0.71	1240	20.87	753	55	0.93	3631	61.11
664	9	0.15	148	2.49	709	35	0.59	1275	21.46	754	58	0.98	3689	62.08
665	18	0.30	166	2.79	710	42	0.71	1317	22.16	755	55	0.93	3744	63.01
666	14	0.24	180	3.03	711	38	0.64	1355	22.80	756	62	1.04	3806	64.05
667	12	0.20	192	3.23	712	36	0.61	1391	23.41	757	76	1.28	3882	65.33
668	15	0.25	207	3.48	713	42	0.71	1433	24.12	758	68	1.14	3950	66.48
669	12	0.20	219	3.69	714	39	0.66	1472	24.77	759	50	0.84	4000	67.32
670	8	0.13	227	3.82	715	44	0.74	1516	25.51	760	54	0.91	4054	68.23
671	12	0.20	239	4.02	716	51	0.86	1567	26.37	761	70	1.18	4124	69.40
672	13	0.22	252	4.24	717	41	0.69	1608	27.06	762	55	0.93	4179	70.33
673	16	0.27	268	4.51	718	48	0.81	1656	27.87	763	40	0.67	4219	71.00
674	10	0.17	278	4.68	719	48	0.81	1704	28.68	764	59	0.99	4278	72.00
675	15	0.25	293	4.93	720	43	0.72	1747	29.40	765	60	1.01	4338	73.01
676	17	0.29	310	5.22	721	53	0.89	1800	30.29	766	55	0.93	4393	73.93
677	18	0.30	328	5.52	722	56	0.94	1856	31.24	767	55	0.93	4448	74.86
678	18	0.30	346	5.82	723	44	0.74	1900	31.98	768	53	0.89	4501	75.75
679	18	0.30	364	6.13	724	52	0.88	1952	32.85	769	51	0.86	4552	76.61
680	22	0.37	386	6.50	725	62	1.04	2014	33.89	770	51	0.86	4603	77.47
681	20	0.34	406	6.83	726	52	0.88	2066	34.77	771	50	0.84	4653	78.31
682	23	0.39	429	7.22	727	56	0.94	2122	35.71	772	43	0.72	4696	79.03
683	16	0.27	445	7.49	728	48	0.81	2170	36.52	773	57	0.96	4753	79.99
684	23	0.39	468	7.88	729	60	1.01	2230	37.53	774	49	0.82	4802	80.81
685	25	0.42	493	8.30	730	57	0.96	2287	38.49	775	50	0.84	4852	81.66
686	17	0.29	510	8.58	731	47	0.79	2334	39.28	776	41	0.69	4893	82.35
687	22	0.37	532	8.95	732	48	0.81	2382	40.09	777	48	0.81	4941	83.15
688	22	0.37	554	9.32	733	57	0.96	2439	41.05	778	46	0.77	4987	83.93
689	23	0.39	577	9.71	734	46	0.77	2485	41.82	779	49	0.82	5036	84.75
690	22	0.37	599	10.08	735	70	1.18	2555	43.00	780	39	0.66	5075	85.41
691	31	0.52	630	10.60	736	52	0.88	2607	43.87	781	46	0.77	5121	86.18
692	32	0.54	662	11.14	737	58	0.98	2665	44.85	782	30	0.50	5151	86.69
693	19	0.32	681	11.46	738	48	0.81	2713	45.66	783	42	0.71	5193	87.39
694	24	0.40	705	11.86	739	67	1.13	2780	46.79	784	36	0.61	5229	88.00

Table 62. Mathematics Grade 3 Scale Score Distribution (continued)

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
785	36	0.61	5265	88.61	830	3	0.05	5913	99.51
786	39	0.66	5304	89.26	831	3	0.05	5916	99.56
787	33	0.56	5337	89.82	832	2	0.03	5918	99.60
788	32	0.54	5369	90.36	834	2	0.03	5920	99.63
789	30	0.50	5399	90.86	835	1	0.02	5921	99.65
790	33	0.56	5432	91.42	837	1	0.02	5922	99.66
791	31	0.52	5463	91.94	838	1	0.02	5923	99.68
792	25	0.42	5488	92.36	839	2	0.03	5925	99.71
793	26	0.44	5514	92.80	840	1	0.02	5926	99.73
794	20	0.34	5534	93.13	842	1	0.02	5927	99.75
795	25	0.42	5559	93.55	843	2	0.03	5929	99.78
796	24	0.40	5583	93.96	848	1	0.02	5930	99.80
797	19	0.32	5602	94.28	850	12	0.20	5942	100.00
798	18	0.30	5620	94.58					
799	16	0.27	5636	94.85					
800	14	0.24	5650	95.09					
801	17	0.29	5667	95.37					
802	18	0.30	5685	95.67					
803	17	0.29	5702	95.96					
804	21	0.35	5723	96.31					
805	11	0.19	5734	96.50					
806	12	0.20	5746	96.70					
807	10	0.17	5756	96.87					
808	10	0.17	5766	97.04					
809	8	0.13	5774	97.17					
810	20	0.34	5794	97.51					
811	3	0.05	5797	97.56					
812	10	0.17	5807	97.73					
813	2	0.03	5809	97.76					
814	8	0.13	5817	97.90					
815	4	0.07	5821	97.96					
816	10	0.17	5831	98.13					
817	15	0.25	5846	98.38					
818	4	0.07	5850	98.45					
819	12	0.20	5862	98.65					
820	5	0.08	5867	98.74					
821	2	0.03	5869	98.77					
822	5	0.08	5874	98.86					
823	5	0.08	5879	98.94					
824	7	0.12	5886	99.06					
825	9	0.15	5895	99.21					
826	4	0.07	5899	99.28					
827	6	0.10	5905	99.38					
828	3	0.05	5908	99.43					
829	2	0.03	5910	99.46					

Table 63. Mathematics Grade 4 Scale Score Distribution

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
650	374	0.80	374	0.80	695	368	0.79	7797	16.67	740	496	1.06	29000	61.99
651	23	0.05	397	0.85	696	385	0.82	8182	17.49	741	494	1.06	29494	63.04
652	20	0.04	417	0.89	697	406	0.87	8588	18.36	742	470	1.00	29964	64.05
653	2	0.00	419	0.90	698	384	0.82	8972	19.18	743	535	1.14	30499	65.19
654	28	0.06	447	0.96	699	426	0.91	9398	20.09	744	531	1.14	31030	66.33
655	37	0.08	484	1.03	700	392	0.84	9790	20.93	745	484	1.03	31514	67.36
656	39	0.08	523	1.12	701	423	0.90	10213	21.83	746	454	0.97	31968	68.33
657	53	0.11	576	1.23	702	411	0.88	10624	22.71	747	504	1.08	32472	69.41
658	84	0.18	660	1.41	703	415	0.89	11039	23.60	748	496	1.06	32968	70.47
659	41	0.09	701	1.50	704	438	0.94	11477	24.53	749	473	1.01	33441	71.48
660	54	0.12	755	1.61	705	478	1.02	11955	25.55	750	484	1.03	33925	72.52
661	78	0.17	833	1.78	706	420	0.90	12375	26.45	751	462	0.99	34387	73.50
662	16	0.03	849	1.81	707	474	1.01	12849	27.47	752	473	1.01	34860	74.51
663	82	0.18	931	1.99	708	492	1.05	13341	28.52	753	431	0.92	35291	75.44
664	62	0.13	993	2.12	709	468	1.00	13809	29.52	754	480	1.03	35771	76.46
665	62	0.13	1055	2.26	710	457	0.98	14266	30.49	755	431	0.92	36202	77.38
666	81	0.17	1136	2.43	711	506	1.08	14772	31.58	756	392	0.84	36594	78.22
667	85	0.18	1221	2.61	712	487	1.04	15259	32.62	757	385	0.82	36979	79.04
668	108	0.23	1329	2.84	713	490	1.05	15749	33.66	758	409	0.87	37388	79.92
669	60	0.13	1389	2.97	714	466	1.00	16215	34.66	759	397	0.85	37785	80.77
670	87	0.19	1476	3.15	715	502	1.07	16717	35.73	760	375	0.80	38160	81.57
671	132	0.28	1608	3.44	716	484	1.03	17201	36.77	761	389	0.83	38549	82.40
672	153	0.33	1761	3.76	717	501	1.07	17702	37.84	762	341	0.73	38890	83.13
673	144	0.31	1905	4.07	718	489	1.05	18191	38.88	763	375	0.80	39265	83.93
674	129	0.28	2034	4.35	719	468	1.00	18659	39.88	764	344	0.74	39609	84.67
675	122	0.26	2156	4.61	720	489	1.05	19148	40.93	765	339	0.72	39948	85.39
676	171	0.37	2327	4.97	721	472	1.01	19620	41.94	766	337	0.72	40285	86.11
677	171	0.37	2498	5.34	722	496	1.06	20116	43.00	767	332	0.71	40617	86.82
678	180	0.38	2678	5.72	723	485	1.04	20601	44.04	768	309	0.66	40926	87.48
679	188	0.40	2866	6.13	724	465	0.99	21066	45.03	769	306	0.65	41232	88.13
680	202	0.43	3068	6.56	725	470	1.00	21536	46.03	770	273	0.58	41505	88.72
681	245	0.52	3313	7.08	726	450	0.96	21986	47.00	771	277	0.59	41782	89.31
682	231	0.49	3544	7.58	727	549	1.17	22535	48.17	772	246	0.53	42028	89.84
683	284	0.61	3828	8.18	728	478	1.02	23013	49.19	773	259	0.55	42287	90.39
684	275	0.59	4103	8.77	729	506	1.08	23519	50.27	774	240	0.51	42527	90.90
685	292	0.62	4395	9.39	730	520	1.11	24039	51.38	775	233	0.50	42760	91.40
686	313	0.67	4708	10.06	731	494	1.06	24533	52.44	776	240	0.51	43000	91.91
687	296	0.63	5004	10.70	732	497	1.06	25030	53.50	777	222	0.47	43222	92.39
688	307	0.66	5311	11.35	733	475	1.02	25505	54.52	778	191	0.41	43413	92.80
689	321	0.69	5632	12.04	734	470	1.00	25975	55.52	779	203	0.43	43616	93.23
690	333	0.71	5965	12.75	735	502	1.07	26477	56.60	780	180	0.38	43796	93.62
691	354	0.76	6319	13.51	736	497	1.06	26974	57.66	781	160	0.34	43956	93.96
692	352	0.75	6671	14.26	737	516	1.10	27490	58.76	782	190	0.41	44146	94.36
693	375	0.80	7046	15.06	738	502	1.07	27992	59.83	783	157	0.34	44303	94.70
694	383	0.82	7429	15.88	739	512	1.09	28504	60.93	784	167	0.36	44470	95.06

Table 64. Mathematics Grade 4 Scale Score Distribution (continued)

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
785	152	0.32	44622	95.38	830	10	0.02	46687	99.79
786	154	0.33	44776	95.71	831	7	0.01	46694	99.81
787	149	0.32	44925	96.03	832	3	0.01	46697	99.82
788	118	0.25	45043	96.28	833	3	0.01	46700	99.82
789	106	0.23	45149	96.51	834	12	0.03	46712	99.85
790	125	0.27	45274	96.77	836	7	0.01	46719	99.86
791	100	0.21	45374	96.99	837	1	0.00	46720	99.87
792	111	0.24	45485	97.23	838	10	0.02	46730	99.89
793	84	0.18	45569	97.41	839	2	0.00	46732	99.89
794	81	0.17	45650	97.58	840	2	0.00	46734	99.90
795	69	0.15	45719	97.73	841	1	0.00	46735	99.90
796	66	0.14	45785	97.87	842	2	0.00	46737	99.90
797	64	0.14	45849	98.00	843	5	0.01	46742	99.91
798	63	0.13	45912	98.14	844	2	0.00	46744	99.92
799	65	0.14	45977	98.28	845	2	0.00	46746	99.92
800	71	0.15	46048	98.43	849	1	0.00	46747	99.92
801	55	0.12	46103	98.55	850	36	0.08	46783	100.00
802	56	0.12	46159	98.67					
803	48	0.10	46207	98.77					
804	47	0.10	46254	98.87					
805	47	0.10	46301	98.97					
806	24	0.05	46325	99.02					
807	34	0.07	46359	99.09					
808	32	0.07	46391	99.16					
809	28	0.06	46419	99.22					
810	23	0.05	46442	99.27					
811	13	0.03	46455	99.30					
812	22	0.05	46477	99.35					
813	18	0.04	46495	99.38					
814	16	0.03	46511	99.42					
815	25	0.05	46536	99.47					
816	15	0.03	46551	99.50					
817	12	0.03	46563	99.53					
818	13	0.03	46576	99.56					
819	12	0.03	46588	99.58					
820	12	0.03	46600	99.61					
821	13	0.03	46613	99.64					
822	12	0.03	46625	99.66					
823	16	0.03	46641	99.70					
824	8	0.02	46649	99.71					
825	6	0.01	46655	99.73					
826	7	0.01	46662	99.74					
827	7	0.01	46669	99.76					
828	6	0.01	46675	99.77					
829	2	0.00	46677	99.77					

Table 65. Mathematics Grade 5 Scale Score Distribution

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
650	14	0.24	14	0.24	697	37	0.62	714	12.03	742	59	0.99	3232	54.46
652	2	0.03	16	0.27	698	46	0.78	760	12.81	743	51	0.86	3283	55.32
653	1	0.02	17	0.29	699	54	0.91	814	13.72	744	60	1.01	3343	56.33
654	1	0.02	18	0.30	700	53	0.89	867	14.61	745	58	0.98	3401	57.30
655	3	0.05	21	0.35	701	49	0.83	916	15.43	746	75	1.26	3476	58.57
656	7	0.12	28	0.47	702	42	0.71	958	16.14	747	51	0.86	3527	59.43
657	3	0.05	31	0.52	703	50	0.84	1008	16.98	748	56	0.94	3583	60.37
658	2	0.03	33	0.56	704	48	0.81	1056	17.79	749	58	0.98	3641	61.35
659	3	0.05	36	0.61	705	49	0.83	1105	18.62	750	63	1.06	3704	62.41
661	3	0.05	39	0.66	706	38	0.64	1143	19.26	751	58	0.98	3762	63.39
662	1	0.02	40	0.67	707	49	0.83	1192	20.08	752	53	0.89	3815	64.28
663	2	0.03	42	0.71	708	59	0.99	1251	21.08	753	72	1.21	3887	65.49
664	2	0.03	44	0.74	709	52	0.88	1303	21.95	754	55	0.93	3942	66.42
665	2	0.03	46	0.78	710	49	0.83	1352	22.78	755	73	1.23	4015	67.65
666	5	0.08	51	0.86	711	65	1.10	1417	23.88	756	45	0.76	4060	68.41
667	7	0.12	58	0.98	712	59	0.99	1476	24.87	757	46	0.78	4106	69.18
668	5	0.08	63	1.06	713	51	0.86	1527	25.73	758	50	0.84	4156	70.03
669	9	0.15	72	1.21	714	63	1.06	1590	26.79	759	59	0.99	4215	71.02
670	9	0.15	81	1.36	715	52	0.88	1642	27.67	760	43	0.72	4258	71.74
671	9	0.15	90	1.52	716	54	0.91	1696	28.58	761	59	0.99	4317	72.74
672	9	0.15	99	1.67	717	56	0.94	1752	29.52	762	51	0.86	4368	73.60
673	3	0.05	102	1.72	718	66	1.11	1818	30.63	763	54	0.91	4422	74.51
674	8	0.13	110	1.85	719	55	0.93	1873	31.56	764	52	0.88	4474	75.38
675	9	0.15	119	2.01	720	59	0.99	1932	32.55	765	60	1.01	4534	76.39
676	13	0.22	132	2.22	721	65	1.10	1997	33.65	766	56	0.94	4590	77.34
677	19	0.32	151	2.54	722	69	1.16	2066	34.81	767	48	0.81	4638	78.15
678	24	0.40	175	2.95	723	62	1.04	2128	35.86	768	51	0.86	4689	79.01
679	18	0.30	193	3.25	724	62	1.04	2190	36.90	769	48	0.81	4737	79.81
680	9	0.15	202	3.40	725	63	1.06	2253	37.96	770	40	0.67	4777	80.49
681	16	0.27	218	3.67	726	56	0.94	2309	38.90	771	50	0.84	4827	81.33
682	20	0.34	238	4.01	727	68	1.15	2377	40.05	772	53	0.89	4880	82.22
683	23	0.39	261	4.40	728	48	0.81	2425	40.86	773	44	0.74	4924	82.97
684	25	0.42	286	4.82	729	49	0.83	2474	41.68	774	50	0.84	4974	83.81
685	23	0.39	309	5.21	730	71	1.20	2545	42.88	775	45	0.76	5019	84.57
686	18	0.30	327	5.51	731	58	0.98	2603	43.86	776	50	0.84	5069	85.41
687	32	0.54	359	6.05	732	48	0.81	2651	44.67	777	41	0.69	5110	86.10
688	31	0.52	390	6.57	733	51	0.86	2702	45.53	778	42	0.71	5152	86.81
689	31	0.52	421	7.09	734	55	0.93	2757	46.45	779	26	0.44	5178	87.25
690	38	0.64	459	7.73	735	56	0.94	2813	47.40	780	35	0.59	5213	87.83
691	32	0.54	491	8.27	736	58	0.98	2871	48.37	781	41	0.69	5254	88.53
692	30	0.51	521	8.78	737	54	0.91	2925	49.28	782	31	0.52	5285	89.05
693	34	0.57	555	9.35	738	65	1.10	2990	50.38	783	38	0.64	5323	89.69
694	38	0.64	593	9.99	739	60	1.01	3050	51.39	784	24	0.40	5347	90.09
695	45	0.76	638	10.75	740	56	0.94	3106	52.33	785	37	0.62	5384	90.72
696	39	0.66	677	11.41	741	67	1.13	3173	53.46	786	30	0.51	5414	91.22

Table 66. Mathematics Grade 5 Scale Score Distribution (continued)

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
787	26	0.44	5440	91.66	842	2	0.03	5934	99.98
788	39	0.66	5479	92.32	850	1	0.02	5935	100.00
789	29	0.49	5508	92.81					
790	30	0.51	5538	93.31					
791	19	0.32	5557	93.63					
792	25	0.42	5582	94.05					
793	32	0.54	5614	94.59					
794	25	0.42	5639	95.01					
795	19	0.32	5658	95.33					
796	22	0.37	5680	95.70					
797	25	0.42	5705	96.12					
798	15	0.25	5720	96.38					
799	20	0.34	5740	96.71					
800	17	0.29	5757	97.00					
801	12	0.20	5769	97.20					
802	15	0.25	5784	97.46					
803	8	0.13	5792	97.59					
804	12	0.20	5804	97.79					
805	12	0.20	5816	97.99					
806	15	0.25	5831	98.25					
807	15	0.25	5846	98.50					
808	4	0.07	5850	98.57					
809	5	0.08	5855	98.65					
810	7	0.12	5862	98.77					
811	8	0.13	5870	98.90					
812	3	0.05	5873	98.96					
813	6	0.10	5879	99.06					
814	9	0.15	5888	99.21					
815	6	0.10	5894	99.31					
816	4	0.07	5898	99.38					
817	2	0.03	5900	99.41					
818	4	0.07	5904	99.48					
819	5	0.08	5909	99.56					
820	3	0.05	5912	99.61					
821	3	0.05	5915	99.66					
822	2	0.03	5917	99.70					
823	1	0.02	5918	99.71					
824	3	0.05	5921	99.76					
825	1	0.02	5922	99.78					
828	3	0.05	5925	99.83					
829	1	0.02	5926	99.85					
831	1	0.02	5927	99.87					
832	3	0.05	5930	99.92					
836	1	0.02	5931	99.93					
838	1	0.02	5932	99.95					

Table 67. Mathematics Grade 6 Scale Score Distribution

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
650	477	1.06	477	1.06	695	412	0.92	7806	17.42	740	492	1.10	29907	66.73
651	30	0.07	507	1.13	696	370	0.83	8176	18.24	741	484	1.08	30391	67.81
652	120	0.27	627	1.40	697	427	0.95	8603	19.19	742	462	1.03	30853	68.84
653	41	0.09	668	1.49	698	404	0.90	9007	20.10	743	473	1.06	31326	69.89
654	1	0.00	669	1.49	699	417	0.93	9424	21.03	744	463	1.03	31789	70.93
655	12	0.03	681	1.52	700	428	0.95	9852	21.98	745	458	1.02	32247	71.95
656	1	0.00	682	1.52	701	447	1.00	10299	22.98	746	425	0.95	32672	72.90
657	4	0.01	686	1.53	702	437	0.98	10736	23.95	747	494	1.10	33166	74.00
658	17	0.04	703	1.57	703	442	0.99	11178	24.94	748	442	0.99	33608	74.99
659	115	0.26	818	1.83	704	430	0.96	11608	25.90	749	396	0.88	34004	75.87
660	72	0.16	890	1.99	705	471	1.05	12079	26.95	750	449	1.00	34453	76.87
661	8	0.02	898	2.00	706	466	1.04	12545	27.99	751	405	0.90	34858	77.78
662	68	0.15	966	2.16	707	448	1.00	12993	28.99	752	414	0.92	35272	78.70
663	86	0.19	1052	2.35	708	428	0.95	13421	29.94	753	387	0.86	35659	79.56
664	28	0.06	1080	2.41	709	468	1.04	13889	30.99	754	344	0.77	36003	80.33
665	61	0.14	1141	2.55	710	504	1.12	14393	32.11	755	376	0.84	36379	81.17
666	148	0.33	1289	2.88	711	486	1.08	14879	33.20	756	363	0.81	36742	81.98
667	48	0.11	1337	2.98	712	469	1.05	15348	34.24	757	361	0.81	37103	82.78
668	178	0.40	1515	3.38	713	533	1.19	15881	35.43	758	316	0.71	37419	83.49
669	119	0.27	1634	3.65	714	491	1.10	16372	36.53	759	349	0.78	37768	84.27
670	74	0.17	1708	3.81	715	500	1.12	16872	37.64	760	307	0.68	38075	84.95
671	63	0.14	1771	3.95	716	490	1.09	17362	38.74	761	328	0.73	38403	85.68
672	68	0.15	1839	4.10	717	531	1.18	17893	39.92	762	312	0.70	38715	86.38
673	254	0.57	2093	4.67	718	563	1.26	18456	41.18	763	286	0.64	39001	87.02
674	93	0.21	2186	4.88	719	508	1.13	18964	42.31	764	288	0.64	39289	87.66
675	90	0.20	2276	5.08	720	511	1.14	19475	43.45	765	271	0.60	39560	88.27
676	141	0.31	2417	5.39	721	540	1.20	20015	44.66	766	251	0.56	39811	88.83
677	259	0.58	2676	5.97	722	514	1.15	20529	45.80	767	260	0.58	40071	89.41
678	149	0.33	2825	6.30	723	532	1.19	21061	46.99	768	240	0.54	40311	89.94
679	174	0.39	2999	6.69	724	514	1.15	21575	48.14	769	228	0.51	40539	90.45
680	221	0.49	3220	7.18	725	503	1.12	22078	49.26	770	214	0.48	40753	90.93
681	198	0.44	3418	7.63	726	546	1.22	22624	50.48	771	247	0.55	41000	91.48
682	299	0.67	3717	8.29	727	516	1.15	23140	51.63	772	216	0.48	41216	91.96
683	214	0.48	3931	8.77	728	536	1.20	23676	52.83	773	214	0.48	41430	92.44
684	179	0.40	4110	9.17	729	518	1.16	24194	53.98	774	190	0.42	41620	92.86
685	293	0.65	4403	9.82	730	508	1.13	24702	55.12	775	185	0.41	41805	93.28
686	263	0.59	4666	10.41	731	555	1.24	25257	56.35	776	201	0.45	42006	93.72
687	293	0.65	4959	11.06	732	543	1.21	25800	57.56	777	142	0.32	42148	94.04
688	329	0.73	5288	11.80	733	511	1.14	26311	58.71	778	157	0.35	42305	94.39
689	312	0.70	5600	12.49	734	542	1.21	26853	59.91	779	162	0.36	42467	94.75
690	358	0.80	5958	13.29	735	513	1.14	27366	61.06	780	115	0.26	42582	95.01
691	338	0.75	6296	14.05	736	472	1.05	27838	62.11	781	137	0.31	42719	95.31
692	364	0.81	6660	14.86	737	496	1.11	28334	63.22	782	134	0.30	42853	95.61
693	344	0.77	7004	15.63	738	559	1.25	28893	64.47	783	128	0.29	42981	95.90
694	390	0.87	7394	16.50	739	522	1.16	29415	65.63	784	105	0.23	43086	96.13

Table 68. Mathematics Grade 6 Scale Score Distribution (continued)

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
785	110	0.25	43196	96.38	830	8	0.02	44759	99.87
786	94	0.21	43290	96.59	831	5	0.01	44764	99.88
787	97	0.22	43387	96.80	832	5	0.01	44769	99.89
788	94	0.21	43481	97.01	833	2	0.00	44771	99.89
789	96	0.21	43577	97.23	834	5	0.01	44776	99.90
790	84	0.19	43661	97.42	835	4	0.01	44780	99.91
791	89	0.20	43750	97.61	836	4	0.01	44784	99.92
792	62	0.14	43812	97.75	837	3	0.01	44787	99.93
793	74	0.17	43886	97.92	839	3	0.01	44790	99.94
794	73	0.16	43959	98.08	840	2	0.00	44792	99.94
795	64	0.14	44023	98.22	841	2	0.00	44794	99.94
796	55	0.12	44078	98.35	842	2	0.00	44796	99.95
797	50	0.11	44128	98.46	843	1	0.00	44797	99.95
798	41	0.09	44169	98.55	844	1	0.00	44798	99.95
799	60	0.13	44229	98.68	845	3	0.01	44801	99.96
800	35	0.08	44264	98.76	846	3	0.01	44804	99.97
801	37	0.08	44301	98.84	847	1	0.00	44805	99.97
802	38	0.08	44339	98.93	849	2	0.00	44807	99.97
803	35	0.08	44374	99.01	850	12	0.03	44819	100.00
804	35	0.08	44409	99.09					
805	36	0.08	44445	99.17					
806	25	0.06	44470	99.22					
807	27	0.06	44497	99.28					
808	32	0.07	44529	99.35					
809	17	0.04	44546	99.39					
810	20	0.04	44566	99.44					
811	13	0.03	44579	99.46					
812	14	0.03	44593	99.50					
813	16	0.04	44609	99.53					
814	18	0.04	44627	99.57					
815	17	0.04	44644	99.61					
816	14	0.03	44658	99.64					
817	6	0.01	44664	99.65					
818	14	0.03	44678	99.69					
819	8	0.02	44686	99.70					
820	12	0.03	44698	99.73					
821	10	0.02	44708	99.75					
822	7	0.02	44715	99.77					
823	3	0.01	44718	99.77					
824	6	0.01	44724	99.79					
825	4	0.01	44728	99.80					
826	8	0.02	44736	99.81					
827	8	0.02	44744	99.83					
828	4	0.01	44748	99.84					
829	3	0.01	44751	99.85					

Table 69. Mathematics Grade 7 Scale Score Distribution

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
650	9	0.16	9	0.16	701	47	0.85	647	11.74	746	55	1.00	3821	69.35
651	2	0.04	11	0.20	702	57	1.03	704	12.78	747	66	1.20	3887	70.54
654	3	0.05	14	0.25	703	52	0.94	756	13.72	748	59	1.07	3946	71.62
656	1	0.02	15	0.27	704	45	0.82	801	14.54	749	61	1.11	4007	72.72
657	2	0.04	17	0.31	705	56	1.02	857	15.55	750	67	1.22	4074	73.94
659	1	0.02	18	0.33	706	55	1.00	912	16.55	751	59	1.07	4133	75.01
660	2	0.04	20	0.36	707	74	1.34	986	17.89	752	72	1.31	4205	76.32
661	1	0.02	21	0.38	708	59	1.07	1045	18.97	753	55	1.00	4260	77.31
662	2	0.04	23	0.42	709	64	1.16	1109	20.13	754	66	1.20	4326	78.51
663	4	0.07	27	0.49	710	79	1.43	1188	21.56	755	59	1.07	4385	79.58
664	1	0.02	28	0.51	711	59	1.07	1247	22.63	756	46	0.83	4431	80.42
665	2	0.04	30	0.54	712	75	1.36	1322	23.99	757	70	1.27	4501	81.69
668	3	0.05	33	0.60	713	73	1.32	1395	25.32	758	56	1.02	4557	82.70
669	6	0.11	39	0.71	714	80	1.45	1475	26.77	759	52	0.94	4609	83.65
670	2	0.04	41	0.74	715	68	1.23	1543	28.00	760	42	0.76	4651	84.41
671	9	0.16	50	0.91	716	78	1.42	1621	29.42	761	45	0.82	4696	85.23
672	2	0.04	52	0.94	717	78	1.42	1699	30.83	762	50	0.91	4746	86.13
673	4	0.07	56	1.02	718	86	1.56	1785	32.40	763	44	0.80	4790	86.93
674	3	0.05	59	1.07	719	80	1.45	1865	33.85	764	36	0.65	4826	87.59
675	7	0.13	66	1.20	720	82	1.49	1947	35.34	765	44	0.80	4870	88.38
676	3	0.05	69	1.25	721	87	1.58	2034	36.91	766	39	0.71	4909	89.09
677	7	0.13	76	1.38	722	65	1.18	2099	38.09	767	39	0.71	4948	89.80
678	5	0.09	81	1.47	723	79	1.43	2178	39.53	768	25	0.45	4973	90.25
679	9	0.16	90	1.63	724	77	1.40	2255	40.93	769	35	0.64	5008	90.89
680	8	0.15	98	1.78	725	62	1.13	2317	42.05	770	32	0.58	5040	91.47
681	7	0.13	105	1.91	726	78	1.42	2395	43.47	771	28	0.51	5068	91.98
682	10	0.18	115	2.09	727	62	1.13	2457	44.59	772	34	0.62	5102	92.60
683	16	0.29	131	2.38	728	86	1.56	2543	46.15	773	23	0.42	5125	93.01
684	10	0.18	141	2.56	729	77	1.40	2620	47.55	774	29	0.53	5154	93.54
685	18	0.33	159	2.89	730	72	1.31	2692	48.86	775	26	0.47	5180	94.01
686	13	0.24	172	3.12	731	84	1.52	2776	50.38	776	23	0.42	5203	94.43
687	19	0.34	191	3.47	732	93	1.69	2869	52.07	777	16	0.29	5219	94.72
688	19	0.34	210	3.81	733	74	1.34	2943	53.41	778	22	0.40	5241	95.12
689	21	0.38	231	4.19	734	71	1.29	3014	54.70	779	16	0.29	5257	95.41
690	24	0.44	255	4.63	735	89	1.62	3103	56.32	780	21	0.38	5278	95.79
691	21	0.38	276	5.01	736	64	1.16	3167	57.48	781	15	0.27	5293	96.06
692	27	0.49	303	5.50	737	64	1.16	3231	58.64	782	21	0.38	5314	96.44
693	23	0.42	326	5.92	738	75	1.36	3306	60.00	783	19	0.34	5333	96.79
694	39	0.71	365	6.62	739	75	1.36	3381	61.36	784	20	0.36	5353	97.15
695	41	0.74	406	7.37	740	67	1.22	3448	62.58	785	17	0.31	5370	97.46
696	38	0.69	444	8.06	741	60	1.09	3508	63.67	786	13	0.24	5383	97.70
697	43	0.78	487	8.84	742	65	1.18	3573	64.85	787	12	0.22	5395	97.91
698	29	0.53	516	9.36	743	71	1.29	3644	66.13	788	5	0.09	5400	98.00
699	35	0.64	551	10.00	744	54	0.98	3698	67.11	789	10	0.18	5410	98.19
700	49	0.89	600	10.89	745	68	1.23	3766	68.35	790	4	0.07	5414	98.26

Table 70. Mathematics Grade 7 Scale Score Distribution (continued)

SS	Freq	%	Cum. Freq	Cum. %
791	8	0.15	5422	98.40
792	9	0.16	5431	98.57
793	3	0.05	5434	98.62
794	8	0.15	5442	98.77
795	2	0.04	5444	98.80
796	12	0.22	5456	99.02
797	5	0.09	5461	99.11
798	9	0.16	5470	99.27
799	7	0.13	5477	99.40
800	3	0.05	5480	99.46
801	3	0.05	5483	99.51
803	4	0.07	5487	99.58
804	1	0.02	5488	99.60
805	3	0.05	5491	99.66
806	4	0.07	5495	99.73
809	1	0.02	5496	99.75
810	1	0.02	5497	99.76
811	1	0.02	5498	99.78
812	1	0.02	5499	99.80
815	1	0.02	5500	99.82
816	2	0.04	5502	99.85
821	3	0.05	5505	99.91
824	1	0.02	5506	99.93
828	1	0.02	5507	99.95
832	1	0.02	5508	99.96
837	1	0.02	5509	99.98
840	1	0.02	5510	100.00

Table 71. Mathematics Grade 8 Scale Score Distribution

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
650	370	0.94	370	0.94	695	291	0.74	7454	19.01	740	338	0.86	24736	63.09
651	28	0.07	398	1.02	696	356	0.91	7810	19.92	741	307	0.78	25043	63.88
652	37	0.09	435	1.11	697	341	0.87	8151	20.79	742	324	0.83	25367	64.70
653	33	0.08	468	1.19	698	338	0.86	8489	21.65	743	349	0.89	25716	65.59
654	42	0.11	510	1.30	699	329	0.84	8818	22.49	744	340	0.87	26056	66.46
655	42	0.11	552	1.41	700	378	0.96	9196	23.46	745	303	0.77	26359	67.23
656	46	0.12	598	1.53	701	415	1.06	9611	24.51	746	306	0.78	26665	68.01
657	67	0.17	665	1.70	702	375	0.96	9986	25.47	747	332	0.85	26997	68.86
658	50	0.13	715	1.82	703	422	1.08	10408	26.55	748	319	0.81	27316	69.67
659	49	0.12	764	1.95	704	366	0.93	10774	27.48	749	314	0.80	27630	70.48
660	55	0.14	819	2.09	705	397	1.01	11171	28.49	750	283	0.72	27913	71.20
661	71	0.18	890	2.27	706	407	1.04	11578	29.53	751	273	0.70	28186	71.89
662	65	0.17	955	2.44	707	407	1.04	11985	30.57	752	262	0.67	28448	72.56
663	78	0.20	1033	2.63	708	390	0.99	12375	31.56	753	264	0.67	28712	73.24
664	90	0.23	1123	2.86	709	403	1.03	12778	32.59	754	293	0.75	29005	73.98
665	83	0.21	1206	3.08	710	400	1.02	13178	33.61	755	277	0.71	29282	74.69
666	103	0.26	1309	3.34	711	368	0.94	13546	34.55	756	249	0.64	29531	75.32
667	97	0.25	1406	3.59	712	390	0.99	13936	35.55	757	281	0.72	29812	76.04
668	97	0.25	1503	3.83	713	395	1.01	14331	36.55	758	233	0.59	30045	76.64
669	132	0.34	1635	4.17	714	401	1.02	14732	37.58	759	268	0.68	30313	77.32
670	117	0.30	1752	4.47	715	384	0.98	15116	38.56	760	258	0.66	30571	77.98
671	116	0.30	1868	4.76	716	397	1.01	15513	39.57	761	241	0.61	30812	78.59
672	148	0.38	2016	5.14	717	408	1.04	15921	40.61	762	226	0.58	31038	79.17
673	123	0.31	2139	5.46	718	407	1.04	16328	41.65	763	243	0.62	31281	79.79
674	152	0.39	2291	5.84	719	426	1.09	16754	42.73	764	209	0.53	31490	80.32
675	143	0.36	2434	6.21	720	441	1.12	17195	43.86	765	266	0.68	31756	81.00
676	151	0.39	2585	6.59	721	419	1.07	17614	44.93	766	224	0.57	31980	81.57
677	174	0.44	2759	7.04	722	412	1.05	18026	45.98	767	208	0.53	32188	82.10
678	196	0.50	2955	7.54	723	398	1.02	18424	46.99	768	201	0.51	32389	82.61
679	208	0.53	3163	8.07	724	388	0.99	18812	47.98	769	207	0.53	32596	83.14
680	199	0.51	3362	8.58	725	427	1.09	19239	49.07	770	218	0.56	32814	83.70
681	179	0.46	3541	9.03	726	383	0.98	19622	50.05	771	213	0.54	33027	84.24
682	217	0.55	3758	9.59	727	374	0.95	19996	51.00	772	208	0.53	33235	84.77
683	248	0.63	4006	10.22	728	395	1.01	20391	52.01	773	191	0.49	33426	85.26
684	246	0.63	4252	10.85	729	386	0.98	20777	53.00	774	172	0.44	33598	85.70
685	264	0.67	4516	11.52	730	377	0.96	21154	53.96	775	182	0.46	33780	86.16
686	258	0.66	4774	12.18	731	395	1.01	21549	54.96	776	174	0.44	33954	86.61
687	323	0.82	5097	13.00	732	349	0.89	21898	55.86	777	178	0.45	34132	87.06
688	279	0.71	5376	13.71	733	340	0.87	22238	56.72	778	193	0.49	34325	87.55
689	284	0.72	5660	14.44	734	364	0.93	22602	57.65	779	175	0.45	34500	88.00
690	262	0.67	5922	15.11	735	385	0.98	22987	58.63	780	182	0.46	34682	88.46
691	303	0.77	6225	15.88	736	362	0.92	23349	59.56	781	158	0.40	34840	88.87
692	324	0.83	6549	16.70	737	352	0.90	23701	60.45	782	148	0.38	34988	89.24
693	322	0.82	6871	17.53	738	347	0.89	24048	61.34	783	182	0.46	35170	89.71
694	292	0.74	7163	18.27	739	350	0.89	24398	62.23	784	171	0.44	35341	90.14

Table 72. Mathematics Grade 8 Scale Score Distribution (continued)

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
785	163	0.42	35504	90.56	830	24	0.06	38881	99.17
786	138	0.35	35642	90.91	831	13	0.03	38894	99.21
787	144	0.37	35786	91.28	832	19	0.05	38913	99.26
788	147	0.37	35933	91.65	833	14	0.04	38927	99.29
789	120	0.31	36053	91.96	834	15	0.04	38942	99.33
790	148	0.38	36201	92.34	835	6	0.02	38948	99.34
791	125	0.32	36326	92.66	836	20	0.05	38968	99.40
792	128	0.33	36454	92.98	837	15	0.04	38983	99.43
793	126	0.32	36580	93.30	838	20	0.05	39003	99.48
794	133	0.34	36713	93.64	839	11	0.03	39014	99.51
795	111	0.28	36824	93.93	840	9	0.02	39023	99.54
796	98	0.25	36922	94.18	841	7	0.02	39030	99.55
797	98	0.25	37020	94.43	842	9	0.02	39039	99.58
798	111	0.28	37131	94.71	843	7	0.02	39046	99.59
799	109	0.28	37240	94.99	844	9	0.02	39055	99.62
800	112	0.29	37352	95.27	845	16	0.04	39071	99.66
801	92	0.23	37444	95.51	846	6	0.02	39077	99.67
802	90	0.23	37534	95.74	847	3	0.01	39080	99.68
803	83	0.21	37617	95.95	848	7	0.02	39087	99.70
804	73	0.19	37690	96.14	849	8	0.02	39095	99.72
805	86	0.22	37776	96.36	850	110	0.28	39205	100.00
806	77	0.20	37853	96.55					
807	64	0.16	37917	96.71					
808	69	0.18	37986	96.89					
809	69	0.18	38055	97.07					
810	71	0.18	38126	97.25					
811	73	0.19	38199	97.43					
812	56	0.14	38255	97.58					
813	45	0.11	38300	97.69					
814	47	0.12	38347	97.81					
815	44	0.11	38391	97.92					
816	46	0.12	38437	98.04					
817	32	0.08	38469	98.12					
818	50	0.13	38519	98.25					
819	32	0.08	38551	98.33					
820	30	0.08	38581	98.41					
821	46	0.12	38627	98.53					
822	23	0.06	38650	98.58					
823	39	0.10	38689	98.68					
824	26	0.07	38715	98.75					
825	34	0.09	38749	98.84					
826	27	0.07	38776	98.91					
827	30	0.08	38806	98.98					
828	29	0.07	38835	99.06					
829	22	0.06	38857	99.11					

Table 73. ELA Grade 3 Scale Score Distribution

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
650	922	2.04	922	2.04	695	293	0.65	8602	19.03	740	405	0.90	23945	52.99
651	39	0.09	961	2.13	696	270	0.60	8872	19.63	741	397	0.88	24342	53.86
652	58	0.13	1019	2.25	697	274	0.61	9146	20.24	742	403	0.89	24745	54.76
653	67	0.15	1086	2.40	698	298	0.66	9444	20.90	743	428	0.95	25173	55.70
654	62	0.14	1148	2.54	699	292	0.65	9736	21.54	744	397	0.88	25570	56.58
655	59	0.13	1207	2.67	700	300	0.66	10036	22.21	745	398	0.88	25968	57.46
656	66	0.15	1273	2.82	701	270	0.60	10306	22.81	746	375	0.83	26343	58.29
657	88	0.19	1361	3.01	702	304	0.67	10610	23.48	747	361	0.80	26704	59.09
658	104	0.23	1465	3.24	703	301	0.67	10911	24.14	748	401	0.89	27105	59.98
659	111	0.25	1576	3.49	704	304	0.67	11215	24.82	749	403	0.89	27508	60.87
660	97	0.21	1673	3.70	705	299	0.66	11514	25.48	750	425	0.94	27933	61.81
661	92	0.20	1765	3.91	706	312	0.69	11826	26.17	751	429	0.95	28362	62.76
662	100	0.22	1865	4.13	707	300	0.66	12126	26.83	752	397	0.88	28759	63.64
663	124	0.27	1989	4.40	708	313	0.69	12439	27.53	753	376	0.83	29135	64.47
664	114	0.25	2103	4.65	709	307	0.68	12746	28.20	754	397	0.88	29532	65.35
665	98	0.22	2201	4.87	710	315	0.70	13061	28.90	755	381	0.84	29913	66.19
666	115	0.25	2316	5.12	711	340	0.75	13401	29.65	756	398	0.88	30311	67.07
667	120	0.27	2436	5.39	712	351	0.78	13752	30.43	757	433	0.96	30744	68.03
668	161	0.36	2597	5.75	713	301	0.67	14053	31.10	758	362	0.80	31106	68.83
669	158	0.35	2755	6.10	714	329	0.73	14382	31.82	759	387	0.86	31493	69.69
670	141	0.31	2896	6.41	715	329	0.73	14711	32.55	760	383	0.85	31876	70.54
671	156	0.35	3052	6.75	716	354	0.78	15065	33.34	761	367	0.81	32243	71.35
672	163	0.36	3215	7.11	717	350	0.77	15415	34.11	762	364	0.81	32607	72.15
673	189	0.42	3404	7.53	718	346	0.77	15761	34.88	763	342	0.76	32949	72.91
674	199	0.44	3603	7.97	719	377	0.83	16138	35.71	764	327	0.72	33276	73.63
675	208	0.46	3811	8.43	720	324	0.72	16462	36.43	765	340	0.75	33616	74.39
676	198	0.44	4009	8.87	721	328	0.73	16790	37.15	766	336	0.74	33952	75.13
677	203	0.45	4212	9.32	722	331	0.73	17121	37.89	767	350	0.77	34302	75.90
678	200	0.44	4412	9.76	723	370	0.82	17491	38.70	768	340	0.75	34642	76.66
679	193	0.43	4605	10.19	724	359	0.79	17850	39.50	769	347	0.77	34989	77.42
680	222	0.49	4827	10.68	725	354	0.78	18204	40.28	770	312	0.69	35301	78.12
681	217	0.48	5044	11.16	726	370	0.82	18574	41.10	771	304	0.67	35605	78.79
682	260	0.58	5304	11.74	727	371	0.82	18945	41.92	772	318	0.70	35923	79.49
683	222	0.49	5526	12.23	728	389	0.86	19334	42.78	773	332	0.73	36255	80.23
684	243	0.54	5769	12.77	729	373	0.83	19707	43.61	774	309	0.68	36564	80.91
685	234	0.52	6003	13.28	730	382	0.85	20089	44.45	775	273	0.60	36837	81.51
686	260	0.58	6263	13.86	731	345	0.76	20434	45.22	776	294	0.65	37131	82.16
687	247	0.55	6510	14.41	732	370	0.82	20804	46.04	777	270	0.60	37401	82.76
688	259	0.57	6769	14.98	733	409	0.91	21213	46.94	778	292	0.65	37693	83.41
689	225	0.50	6994	15.48	734	344	0.76	21557	47.70	779	319	0.71	38012	84.11
690	268	0.59	7262	16.07	735	390	0.86	21947	48.56	780	254	0.56	38266	84.68
691	265	0.59	7527	16.66	736	368	0.81	22315	49.38	781	254	0.56	38520	85.24
692	261	0.58	7788	17.23	737	411	0.91	22726	50.29	782	281	0.62	38801	85.86
693	246	0.54	8034	17.78	738	406	0.90	23132	51.19	783	248	0.55	39049	86.41
694	275	0.61	8309	18.39	739	408	0.90	23540	52.09	784	232	0.51	39281	86.92

Table 74. ELA Grade 3 Scale Score Distribution (continued)

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
785	203	0.45	39484	87.37	830	46	0.10	44591	98.67
786	221	0.49	39705	87.86	831	36	0.08	44627	98.75
787	195	0.43	39900	88.29	832	20	0.04	44647	98.80
788	199	0.44	40099	88.73	833	29	0.06	44676	98.86
789	218	0.48	40317	89.21	834	30	0.07	44706	98.93
790	224	0.50	40541	89.71	835	29	0.06	44735	98.99
791	193	0.43	40734	90.14	836	22	0.05	44757	99.04
792	206	0.46	40940	90.59	837	28	0.06	44785	99.10
793	188	0.42	41128	91.01	838	21	0.05	44806	99.15
794	177	0.39	41305	91.40	839	20	0.04	44826	99.19
795	165	0.37	41470	91.77	840	18	0.04	44844	99.23
796	153	0.34	41623	92.10	841	19	0.04	44863	99.27
797	155	0.34	41778	92.45	842	21	0.05	44884	99.32
798	160	0.35	41938	92.80	843	28	0.06	44912	99.38
799	148	0.33	42086	93.13	844	25	0.06	44937	99.44
800	137	0.30	42223	93.43	845	9	0.02	44946	99.46
801	140	0.31	42363	93.74	846	17	0.04	44963	99.50
802	131	0.29	42494	94.03	847	14	0.03	44977	99.53
803	133	0.29	42627	94.33	848	11	0.02	44988	99.55
804	133	0.29	42760	94.62	849	10	0.02	44998	99.57
805	114	0.25	42874	94.87	850	193	0.43	45191	100.00
806	100	0.22	42974	95.09					
807	99	0.22	43073	95.31					
808	112	0.25	43185	95.56					
809	93	0.21	43278	95.77					
810	102	0.23	43380	95.99					
811	94	0.21	43474	96.20					
812	89	0.20	43563	96.40					
813	83	0.18	43646	96.58					
814	75	0.17	43721	96.75					
815	73	0.16	43794	96.91					
816	60	0.13	43854	97.04					
817	77	0.17	43931	97.21					
818	60	0.13	43991	97.34					
819	53	0.12	44044	97.46					
820	72	0.16	44116	97.62					
821	55	0.12	44171	97.74					
822	61	0.13	44232	97.88					
823	53	0.12	44285	98.00					
824	53	0.12	44338	98.11					
825	49	0.11	44387	98.22					
826	48	0.11	44435	98.33					
827	31	0.07	44466	98.40					
828	49	0.11	44515	98.50					
829	30	0.07	44545	98.57					

Table 75. ELA Grade 4 Scale Score Distribution

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
650	48	0.84	48	0.84	696	23	0.40	627	10.95	741	55	0.96	2546	44.47
651	5	0.09	53	0.93	697	29	0.51	656	11.46	742	59	1.03	2605	45.50
652	6	0.10	59	1.03	698	27	0.47	683	11.93	743	62	1.08	2667	46.59
653	6	0.10	65	1.14	699	25	0.44	708	12.37	744	63	1.10	2730	47.69
654	3	0.05	68	1.19	700	32	0.56	740	12.93	745	73	1.28	2803	48.96
655	2	0.03	70	1.22	701	20	0.35	760	13.28	746	59	1.03	2862	49.99
657	2	0.03	72	1.26	702	31	0.54	791	13.82	747	84	1.47	2946	51.46
658	4	0.07	76	1.33	703	36	0.63	827	14.45	748	71	1.24	3017	52.70
659	5	0.09	81	1.41	704	33	0.58	860	15.02	749	78	1.36	3095	54.06
660	4	0.07	85	1.48	705	20	0.35	880	15.37	750	68	1.19	3163	55.25
661	5	0.09	90	1.57	706	30	0.52	910	15.90	751	75	1.31	3238	56.56
662	5	0.09	95	1.66	707	47	0.82	957	16.72	752	76	1.33	3314	57.89
663	2	0.03	97	1.69	708	30	0.52	987	17.24	753	71	1.24	3385	59.13
664	6	0.10	103	1.80	709	29	0.51	1016	17.75	754	80	1.40	3465	60.52
665	7	0.12	110	1.92	710	27	0.47	1043	18.22	755	75	1.31	3540	61.83
666	7	0.12	117	2.04	711	37	0.65	1080	18.86	756	69	1.21	3609	63.04
667	5	0.09	122	2.13	712	32	0.56	1112	19.42	757	69	1.21	3678	64.24
668	12	0.21	134	2.34	713	35	0.61	1147	20.03	758	81	1.41	3759	65.66
669	9	0.16	143	2.50	714	41	0.72	1188	20.75	759	62	1.08	3821	66.74
670	10	0.17	153	2.67	715	34	0.59	1222	21.34	760	83	1.45	3904	68.19
671	13	0.23	166	2.90	716	50	0.87	1272	22.22	761	80	1.40	3984	69.59
672	18	0.31	184	3.21	717	39	0.68	1311	22.90	762	74	1.29	4058	70.88
673	7	0.12	191	3.34	718	41	0.72	1352	23.62	763	75	1.31	4133	72.19
674	16	0.28	207	3.62	719	41	0.72	1393	24.33	764	67	1.17	4200	73.36
675	8	0.14	215	3.76	720	32	0.56	1425	24.89	765	55	0.96	4255	74.32
676	16	0.28	231	4.03	721	25	0.44	1450	25.33	766	69	1.21	4324	75.53
677	13	0.23	244	4.26	722	56	0.98	1506	26.31	767	64	1.12	4388	76.65
678	22	0.38	266	4.65	723	58	1.01	1564	27.32	768	62	1.08	4450	77.73
679	11	0.19	277	4.84	724	49	0.86	1613	28.17	769	44	0.77	4494	78.50
680	18	0.31	295	5.15	725	50	0.87	1663	29.05	770	66	1.15	4560	79.65
681	17	0.30	312	5.45	726	54	0.94	1717	29.99	771	49	0.86	4609	80.51
682	16	0.28	328	5.73	727	46	0.80	1763	30.79	772	64	1.12	4673	81.62
683	23	0.40	351	6.13	728	40	0.70	1803	31.49	773	51	0.89	4724	82.52
684	19	0.33	370	6.46	729	52	0.91	1855	32.40	774	55	0.96	4779	83.48
685	13	0.23	383	6.69	730	52	0.91	1907	33.31	775	52	0.91	4831	84.38
686	23	0.40	406	7.09	731	56	0.98	1963	34.29	776	51	0.89	4882	85.28
687	23	0.40	429	7.49	732	41	0.72	2004	35.00	777	36	0.63	4918	85.90
688	15	0.26	444	7.76	733	54	0.94	2058	35.95	778	32	0.56	4950	86.46
689	20	0.35	464	8.10	734	55	0.96	2113	36.91	779	53	0.93	5003	87.39
690	14	0.24	478	8.35	735	65	1.14	2178	38.04	780	41	0.72	5044	88.10
691	21	0.37	499	8.72	736	59	1.03	2237	39.07	781	48	0.84	5092	88.94
692	25	0.44	524	9.15	737	56	0.98	2293	40.05	782	31	0.54	5123	89.48
693	35	0.61	559	9.76	738	70	1.22	2363	41.28	783	42	0.73	5165	90.22
694	22	0.38	581	10.15	739	44	0.77	2407	42.04	784	28	0.49	5193	90.71
695	23	0.40	604	10.55	740	84	1.47	2491	43.51	785	32	0.56	5225	91.27

Table 76. ELA Grade 4 Scale Score Distribution (continued)

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
786	27	0.47	5252	91.74	833	4	0.07	5706	99.67
787	41	0.72	5293	92.45	834	2	0.03	5708	99.70
788	34	0.59	5327	93.05	836	1	0.02	5709	99.72
789	28	0.49	5355	93.54	837	4	0.07	5713	99.79
790	14	0.24	5369	93.78	838	1	0.02	5714	99.81
791	20	0.35	5389	94.13	840	1	0.02	5715	99.83
792	13	0.23	5402	94.36	841	1	0.02	5716	99.84
793	15	0.26	5417	94.62	843	1	0.02	5717	99.86
794	25	0.44	5442	95.06	844	1	0.02	5718	99.88
795	15	0.26	5457	95.32	847	1	0.02	5719	99.90
796	14	0.24	5471	95.56	848	1	0.02	5720	99.91
797	9	0.16	5480	95.72	850	5	0.09	5725	100.00
798	19	0.33	5499	96.05					
799	7	0.12	5506	96.17					
800	14	0.24	5520	96.42					
801	8	0.14	5528	96.56					
802	13	0.23	5541	96.79					
803	10	0.17	5551	96.96					
804	6	0.10	5557	97.07					
805	15	0.26	5572	97.33					
806	18	0.31	5590	97.64					
807	4	0.07	5594	97.71					
808	14	0.24	5608	97.96					
809	6	0.10	5614	98.06					
810	9	0.16	5623	98.22					
811	4	0.07	5627	98.29					
812	7	0.12	5634	98.41					
813	6	0.10	5640	98.52					
815	8	0.14	5648	98.66					
816	6	0.10	5654	98.76					
817	3	0.05	5657	98.81					
818	2	0.03	5659	98.85					
819	4	0.07	5663	98.92					
820	4	0.07	5667	98.99					
821	5	0.09	5672	99.07					
822	3	0.05	5675	99.13					
823	5	0.09	5680	99.21					
824	3	0.05	5683	99.27					
825	5	0.09	5688	99.35					
826	2	0.03	5690	99.39					
827	2	0.03	5692	99.42					
828	3	0.05	5695	99.48					
829	3	0.05	5698	99.53					
830	1	0.02	5699	99.55					
831	3	0.05	5702	99.60					

Table 77. ELA Grade 5 Scale Score Distribution

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
650	123	0.26	123	0.26	695	190	0.40	2778	5.92	740	490	1.04	20100	42.84
651	8	0.02	131	0.28	696	174	0.37	2952	6.29	741	507	1.08	20607	43.92
652	7	0.01	138	0.29	697	228	0.49	3180	6.78	742	481	1.03	21088	44.95
653	7	0.01	145	0.31	698	208	0.44	3388	7.22	743	505	1.08	21593	46.02
654	11	0.02	156	0.33	699	207	0.44	3595	7.66	744	538	1.15	22131	47.17
655	5	0.01	161	0.34	700	236	0.50	3831	8.17	745	543	1.16	22674	48.33
656	9	0.02	170	0.36	701	254	0.54	4085	8.71	746	519	1.11	23193	49.43
657	4	0.01	174	0.37	702	277	0.59	4362	9.30	747	512	1.09	23705	50.53
658	11	0.02	185	0.39	703	272	0.58	4634	9.88	748	555	1.18	24260	51.71
659	15	0.03	200	0.43	704	290	0.62	4924	10.50	749	520	1.11	24780	52.82
660	14	0.03	214	0.46	705	323	0.69	5247	11.18	750	561	1.20	25341	54.01
661	13	0.03	227	0.48	706	317	0.68	5564	11.86	751	494	1.05	25835	55.07
662	11	0.02	238	0.51	707	326	0.69	5890	12.55	752	522	1.11	26357	56.18
663	20	0.04	258	0.55	708	309	0.66	6199	13.21	753	529	1.13	26886	57.31
664	17	0.04	275	0.59	709	326	0.69	6525	13.91	754	537	1.14	27423	58.45
665	18	0.04	293	0.62	710	368	0.78	6893	14.69	755	531	1.13	27954	59.58
666	23	0.05	316	0.67	711	382	0.81	7275	15.51	756	521	1.11	28475	60.69
667	32	0.07	348	0.74	712	351	0.75	7626	16.25	757	538	1.15	29013	61.84
668	26	0.06	374	0.80	713	359	0.77	7985	17.02	758	522	1.11	29535	62.95
669	33	0.07	407	0.87	714	391	0.83	8376	17.85	759	524	1.12	30059	64.07
670	29	0.06	436	0.93	715	375	0.80	8751	18.65	760	501	1.07	30560	65.14
671	22	0.05	458	0.98	716	411	0.88	9162	19.53	761	516	1.10	31076	66.24
672	36	0.08	494	1.05	717	428	0.91	9590	20.44	762	509	1.08	31585	67.32
673	44	0.09	538	1.15	718	374	0.80	9964	21.24	763	483	1.03	32068	68.35
674	52	0.11	590	1.26	719	424	0.90	10388	22.14	764	458	0.98	32526	69.33
675	45	0.10	635	1.35	720	439	0.94	10827	23.08	765	538	1.15	33064	70.47
676	39	0.08	674	1.44	721	421	0.90	11248	23.97	766	522	1.11	33586	71.59
677	71	0.15	745	1.59	722	459	0.98	11707	24.95	767	545	1.16	34131	72.75
678	61	0.13	806	1.72	723	451	0.96	12158	25.91	768	496	1.06	34627	73.80
679	59	0.13	865	1.84	724	452	0.96	12610	26.88	769	519	1.11	35146	74.91
680	77	0.16	942	2.01	725	441	0.94	13051	27.82	770	511	1.09	35657	76.00
681	67	0.14	1009	2.15	726	473	1.01	13524	28.83	771	460	0.98	36117	76.98
682	73	0.16	1082	2.31	727	430	0.92	13954	29.74	772	470	1.00	36587	77.98
683	76	0.16	1158	2.47	728	457	0.97	14411	30.72	773	467	1.00	37054	78.98
684	106	0.23	1264	2.69	729	474	1.01	14885	31.73	774	439	0.94	37493	79.91
685	99	0.21	1363	2.91	730	492	1.05	15377	32.77	775	440	0.94	37933	80.85
686	98	0.21	1461	3.11	731	466	0.99	15843	33.77	776	465	0.99	38398	81.84
687	87	0.19	1548	3.30	732	460	0.98	16303	34.75	777	400	0.85	38798	82.69
688	133	0.28	1681	3.58	733	445	0.95	16748	35.70	778	416	0.89	39214	83.58
689	135	0.29	1816	3.87	734	461	0.98	17209	36.68	779	396	0.84	39610	84.43
690	142	0.30	1958	4.17	735	443	0.94	17652	37.62	780	389	0.83	39999	85.25
691	124	0.26	2082	4.44	736	492	1.05	18144	38.67	781	380	0.81	40379	86.06
692	162	0.35	2244	4.78	737	491	1.05	18635	39.72	782	355	0.76	40734	86.82
693	175	0.37	2419	5.16	738	499	1.06	19134	40.78	783	331	0.71	41065	87.53
694	169	0.36	2588	5.52	739	476	1.01	19610	41.80	784	329	0.70	41394	88.23

Table 78. ELA Grade 5 Scale Score Distribution (continued)

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
785	304	0.65	41698	88.88	830	14	0.03	46783	99.71
786	320	0.68	42018	89.56	831	9	0.02	46792	99.73
787	290	0.62	42308	90.18	832	11	0.02	46803	99.76
788	308	0.66	42616	90.83	833	5	0.01	46808	99.77
789	277	0.59	42893	91.42	834	12	0.03	46820	99.79
790	247	0.53	43140	91.95	835	6	0.01	46826	99.81
791	253	0.54	43393	92.49	836	7	0.01	46833	99.82
792	230	0.49	43623	92.98	837	15	0.03	46848	99.85
793	207	0.44	43830	93.42	838	10	0.02	46858	99.87
794	186	0.40	44016	93.82	839	4	0.01	46862	99.88
795	201	0.43	44217	94.25	840	7	0.01	46869	99.90
796	210	0.45	44427	94.69	842	5	0.01	46874	99.91
797	163	0.35	44590	95.04	843	1	0.00	46875	99.91
798	156	0.33	44746	95.37	844	3	0.01	46878	99.92
799	165	0.35	44911	95.72	845	2	0.00	46880	99.92
800	161	0.34	45072	96.07	846	3	0.01	46883	99.93
801	137	0.29	45209	96.36	847	2	0.00	46885	99.93
802	126	0.27	45335	96.63	848	4	0.01	46889	99.94
803	118	0.25	45453	96.88	849	5	0.01	46894	99.95
804	120	0.26	45573	97.14	850	23	0.05	46917	100.00
805	95	0.20	45668	97.34					
806	87	0.19	45755	97.52					
807	98	0.21	45853	97.73					
808	87	0.19	45940	97.92					
809	77	0.16	46017	98.08					
810	78	0.17	46095	98.25					
811	74	0.16	46169	98.41					
812	59	0.13	46228	98.53					
813	50	0.11	46278	98.64					
814	44	0.09	46322	98.73					
815	47	0.10	46369	98.83					
816	41	0.09	46410	98.92					
817	47	0.10	46457	99.02					
818	51	0.11	46508	99.13					
819	29	0.06	46537	99.19					
820	37	0.08	46574	99.27					
821	31	0.07	46605	99.33					
822	21	0.04	46626	99.38					
823	27	0.06	46653	99.44					
824	23	0.05	46676	99.49					
825	14	0.03	46690	99.52					
826	23	0.05	46713	99.57					
827	18	0.04	46731	99.60					
828	14	0.03	46745	99.63					
829	24	0.05	46769	99.68					

Table 79. ELA Grade 6 Scale Score Distribution

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
650	24	0.44	24	0.44	696	20	0.37	467	8.59	741	77	1.42	2924	53.76
651	2	0.04	26	0.48	697	19	0.35	486	8.94	742	74	1.36	2998	55.12
653	1	0.02	27	0.50	698	27	0.50	513	9.43	743	64	1.18	3062	56.30
654	1	0.02	28	0.51	699	33	0.61	546	10.04	744	72	1.32	3134	57.62
655	1	0.02	29	0.53	700	32	0.59	578	10.63	745	66	1.21	3200	58.83
656	4	0.07	33	0.61	701	29	0.53	607	11.16	746	46	0.85	3246	59.68
657	3	0.06	36	0.66	702	32	0.59	639	11.75	747	75	1.38	3321	61.06
658	3	0.06	39	0.72	703	33	0.61	672	12.36	748	63	1.16	3384	62.22
659	2	0.04	41	0.75	704	35	0.64	707	13.00	749	68	1.25	3452	63.47
660	3	0.06	44	0.81	705	35	0.64	742	13.64	750	63	1.16	3515	64.63
661	1	0.02	45	0.83	706	49	0.90	791	14.54	751	53	0.97	3568	65.60
662	1	0.02	46	0.85	707	42	0.77	833	15.32	752	71	1.31	3639	66.91
663	5	0.09	51	0.94	708	36	0.66	869	15.98	753	71	1.31	3710	68.21
664	4	0.07	55	1.01	709	43	0.79	912	16.77	754	60	1.10	3770	69.31
665	6	0.11	61	1.12	710	52	0.96	964	17.72	755	63	1.16	3833	70.47
666	1	0.02	62	1.14	711	45	0.83	1009	18.55	756	67	1.23	3900	71.70
667	4	0.07	66	1.21	712	53	0.97	1062	19.53	757	63	1.16	3963	72.86
668	3	0.06	69	1.27	713	52	0.96	1114	20.48	758	62	1.14	4025	74.00
669	4	0.07	73	1.34	714	52	0.96	1166	21.44	759	60	1.10	4085	75.11
670	7	0.13	80	1.47	715	47	0.86	1213	22.30	760	56	1.03	4141	76.14
671	2	0.04	82	1.51	716	65	1.20	1278	23.50	761	65	1.20	4206	77.33
672	8	0.15	90	1.65	717	57	1.05	1335	24.54	762	67	1.23	4273	78.56
673	5	0.09	95	1.75	718	55	1.01	1390	25.56	763	45	0.83	4318	79.39
674	7	0.13	102	1.88	719	50	0.92	1440	26.48	764	51	0.94	4369	80.33
675	11	0.20	113	2.08	720	64	1.18	1504	27.65	765	47	0.86	4416	81.19
676	12	0.22	125	2.30	721	64	1.18	1568	28.83	766	64	1.18	4480	82.37
677	11	0.20	136	2.50	722	71	1.31	1639	30.13	767	40	0.74	4520	83.10
678	6	0.11	142	2.61	723	70	1.29	1709	31.42	768	47	0.86	4567	83.97
679	13	0.24	155	2.85	724	69	1.27	1778	32.69	769	55	1.01	4622	84.98
680	12	0.22	167	3.07	725	50	0.92	1828	33.61	770	36	0.66	4658	85.64
681	12	0.22	179	3.29	726	66	1.21	1894	34.82	771	37	0.68	4695	86.32
682	13	0.24	192	3.53	727	70	1.29	1964	36.11	772	36	0.66	4731	86.98
683	16	0.29	208	3.82	728	56	1.03	2020	37.14	773	43	0.79	4774	87.77
684	19	0.35	227	4.17	729	57	1.05	2077	38.19	774	44	0.81	4818	88.58
685	20	0.37	247	4.54	730	70	1.29	2147	39.47	775	38	0.70	4856	89.28
686	21	0.39	268	4.93	731	86	1.58	2233	41.06	776	37	0.68	4893	89.96
687	17	0.31	285	5.24	732	62	1.14	2295	42.20	777	37	0.68	4930	90.64
688	15	0.28	300	5.52	733	55	1.01	2350	43.21	778	36	0.66	4966	91.30
689	21	0.39	321	5.90	734	69	1.27	2419	44.48	779	23	0.42	4989	91.73
690	21	0.39	342	6.29	735	68	1.25	2487	45.73	780	34	0.63	5023	92.35
691	23	0.42	365	6.71	736	74	1.36	2561	47.09	781	20	0.37	5043	92.72
692	28	0.51	393	7.23	737	64	1.18	2625	48.26	782	30	0.55	5073	93.27
693	21	0.39	414	7.61	738	81	1.49	2706	49.75	783	23	0.42	5096	93.69
694	22	0.40	436	8.02	739	70	1.29	2776	51.04	784	19	0.35	5115	94.04
695	11	0.20	447	8.22	740	71	1.31	2847	52.34	785	28	0.51	5143	94.56

Table 80. ELA Grade 6 Scale Score Distribution (continued)

SS	Freq	%	Cum. Freq	Cum. %
786	14	0.26	5157	94.82
787	17	0.31	5174	95.13
788	23	0.42	5197	95.55
789	17	0.31	5214	95.86
790	22	0.40	5236	96.27
791	15	0.28	5251	96.54
792	18	0.33	5269	96.87
793	10	0.18	5279	97.06
794	10	0.18	5289	97.24
795	17	0.31	5306	97.55
796	4	0.07	5310	97.63
797	2	0.04	5312	97.67
798	12	0.22	5324	97.89
799	13	0.24	5337	98.12
800	7	0.13	5344	98.25
801	10	0.18	5354	98.44
802	7	0.13	5361	98.57
803	7	0.13	5368	98.69
804	7	0.13	5375	98.82
805	10	0.18	5385	99.01
806	3	0.06	5388	99.06
807	6	0.11	5394	99.17
808	5	0.09	5399	99.26
809	5	0.09	5404	99.36
810	5	0.09	5409	99.45
811	1	0.02	5410	99.47
812	2	0.04	5412	99.50
813	2	0.04	5414	99.54
814	2	0.04	5416	99.58
816	3	0.06	5419	99.63
817	4	0.07	5423	99.71
819	4	0.07	5427	99.78
820	2	0.04	5429	99.82
821	1	0.02	5430	99.83
822	1	0.02	5431	99.85
823	2	0.04	5433	99.89
826	2	0.04	5435	99.93
827	1	0.02	5436	99.94
830	1	0.02	5437	99.96
831	1	0.02	5438	99.98
850	1	0.02	5439	100.00

Table 81. ELA Grade 7 Scale Score Distribution

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
650	252	0.59	252	0.59	695	238	0.55	4764	11.10	740	448	1.04	20632	48.06
651	15	0.03	267	0.62	696	230	0.54	4994	11.63	741	448	1.04	21080	49.10
652	19	0.04	286	0.67	697	243	0.57	5237	12.20	742	434	1.01	21514	50.11
653	18	0.04	304	0.71	698	239	0.56	5476	12.75	743	449	1.05	21963	51.16
654	19	0.04	323	0.75	699	247	0.58	5723	13.33	744	440	1.02	22403	52.18
655	16	0.04	339	0.79	700	229	0.53	5952	13.86	745	431	1.00	22834	53.18
656	18	0.04	357	0.83	701	257	0.60	6209	14.46	746	458	1.07	23292	54.25
657	31	0.07	388	0.90	702	261	0.61	6470	15.07	747	431	1.00	23723	55.25
658	32	0.07	420	0.98	703	247	0.58	6717	15.64	748	477	1.11	24200	56.37
659	45	0.10	465	1.08	704	287	0.67	7004	16.31	749	432	1.01	24632	57.37
660	35	0.08	500	1.16	705	287	0.67	7291	16.98	750	462	1.08	25094	58.45
661	47	0.11	547	1.27	706	309	0.72	7600	17.70	751	462	1.08	25556	59.52
662	36	0.08	583	1.36	707	296	0.69	7896	18.39	752	454	1.06	26010	60.58
663	41	0.10	624	1.45	708	325	0.76	8221	19.15	753	409	0.95	26419	61.53
664	41	0.10	665	1.55	709	315	0.73	8536	19.88	754	417	0.97	26836	62.51
665	66	0.15	731	1.70	710	312	0.73	8848	20.61	755	423	0.99	27259	63.49
666	61	0.14	792	1.84	711	356	0.83	9204	21.44	756	431	1.00	27690	64.49
667	65	0.15	857	2.00	712	353	0.82	9557	22.26	757	414	0.96	28104	65.46
668	63	0.15	920	2.14	713	352	0.82	9909	23.08	758	419	0.98	28523	66.43
669	61	0.14	981	2.28	714	365	0.85	10274	23.93	759	411	0.96	28934	67.39
670	76	0.18	1057	2.46	715	347	0.81	10621	24.74	760	398	0.93	29332	68.32
671	69	0.16	1126	2.62	716	366	0.85	10987	25.59	761	423	0.99	29755	69.30
672	90	0.21	1216	2.83	717	335	0.78	11322	26.37	762	409	0.95	30164	70.26
673	91	0.21	1307	3.04	718	361	0.84	11683	27.21	763	401	0.93	30565	71.19
674	89	0.21	1396	3.25	719	375	0.87	12058	28.08	764	396	0.92	30961	72.11
675	107	0.25	1503	3.50	720	363	0.85	12421	28.93	765	390	0.91	31351	73.02
676	119	0.28	1622	3.78	721	375	0.87	12796	29.80	766	397	0.92	31748	73.95
677	117	0.27	1739	4.05	722	363	0.85	13159	30.65	767	409	0.95	32157	74.90
678	100	0.23	1839	4.28	723	391	0.91	13550	31.56	768	385	0.90	32542	75.80
679	112	0.26	1951	4.54	724	364	0.85	13914	32.41	769	334	0.78	32876	76.57
680	143	0.33	2094	4.88	725	386	0.90	14300	33.31	770	348	0.81	33224	77.38
681	143	0.33	2237	5.21	726	413	0.96	14713	34.27	771	333	0.78	33557	78.16
682	137	0.32	2374	5.53	727	397	0.92	15110	35.19	772	345	0.80	33902	78.96
683	146	0.34	2520	5.87	728	395	0.92	15505	36.11	773	311	0.72	34213	79.69
684	138	0.32	2658	6.19	729	448	1.04	15953	37.16	774	332	0.77	34545	80.46
685	175	0.41	2833	6.60	730	422	0.98	16375	38.14	775	320	0.75	34865	81.21
686	141	0.33	2974	6.93	731	403	0.94	16778	39.08	776	313	0.73	35178	81.94
687	167	0.39	3141	7.32	732	424	0.99	17202	40.07	777	323	0.75	35501	82.69
688	184	0.43	3325	7.74	733	427	0.99	17629	41.06	778	291	0.68	35792	83.37
689	204	0.48	3529	8.22	734	415	0.97	18044	42.03	779	265	0.62	36057	83.98
690	206	0.48	3735	8.70	735	425	0.99	18469	43.02	780	282	0.66	36339	84.64
691	209	0.49	3944	9.19	736	429	1.00	18898	44.02	781	271	0.63	36610	85.27
692	210	0.49	4154	9.68	737	436	1.02	19334	45.03	782	252	0.59	36862	85.86
693	186	0.43	4340	10.11	738	429	1.00	19763	46.03	783	270	0.63	37132	86.49
694	186	0.43	4526	10.54	739	421	0.98	20184	47.01	784	227	0.53	37359	87.01

Table 82. ELA Grade 7 Scale Score Distribution (continued)

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
785	262	0.61	37621	87.63	830	22	0.05	42610	99.25
786	261	0.61	37882	88.23	831	21	0.05	42631	99.29
787	239	0.56	38121	88.79	832	35	0.08	42666	99.38
788	199	0.46	38320	89.25	833	21	0.05	42687	99.42
789	179	0.42	38499	89.67	834	24	0.06	42711	99.48
790	207	0.48	38706	90.15	835	17	0.04	42728	99.52
791	217	0.51	38923	90.66	836	14	0.03	42742	99.55
792	175	0.41	39098	91.07	837	17	0.04	42759	99.59
793	203	0.47	39301	91.54	838	15	0.03	42774	99.63
794	175	0.41	39476	91.95	839	15	0.03	42789	99.66
795	198	0.46	39674	92.41	840	11	0.03	42800	99.69
796	180	0.42	39854	92.83	841	14	0.03	42814	99.72
797	179	0.42	40033	93.24	842	11	0.03	42825	99.75
798	141	0.33	40174	93.57	843	7	0.02	42832	99.76
799	131	0.31	40305	93.88	844	5	0.01	42837	99.77
800	145	0.34	40450	94.21	845	6	0.01	42843	99.79
801	151	0.35	40601	94.57	846	4	0.01	42847	99.80
802	133	0.31	40734	94.88	847	7	0.02	42854	99.81
803	128	0.30	40862	95.17	848	3	0.01	42857	99.82
804	118	0.27	40980	95.45	849	7	0.02	42864	99.84
805	125	0.29	41105	95.74	850	70	0.16	42934	100.00
806	107	0.25	41212	95.99					
807	98	0.23	41310	96.22					
808	97	0.23	41407	96.44					
809	110	0.26	41517	96.70					
810	82	0.19	41599	96.89					
811	81	0.19	41680	97.08					
812	69	0.16	41749	97.24					
813	89	0.21	41838	97.45					
814	75	0.17	41913	97.62					
815	62	0.14	41975	97.77					
816	64	0.15	42039	97.92					
817	69	0.16	42108	98.08					
818	63	0.15	42171	98.22					
819	45	0.10	42216	98.33					
820	55	0.13	42271	98.46					
821	50	0.12	42321	98.57					
822	47	0.11	42368	98.68					
823	38	0.09	42406	98.77					
824	40	0.09	42446	98.86					
825	24	0.06	42470	98.92					
826	31	0.07	42501	98.99					
827	32	0.07	42533	99.07					
828	28	0.07	42561	99.13					
829	27	0.06	42588	99.19					

Table 83. ELA Grade 8 Scale Score Distribution

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
650	29	0.65	29	0.65	695	23	0.52	543	12.17	740	43	0.96	2039	45.69
651	2	0.04	31	0.69	696	21	0.47	564	12.64	741	52	1.17	2091	46.85
652	6	0.13	37	0.83	697	21	0.47	585	13.11	742	46	1.03	2137	47.88
653	5	0.11	42	0.94	698	24	0.54	609	13.65	743	54	1.21	2191	49.09
654	2	0.04	44	0.99	699	25	0.56	634	14.21	744	42	0.94	2233	50.03
655	6	0.13	50	1.12	700	31	0.69	665	14.90	745	60	1.34	2293	51.38
656	3	0.07	53	1.19	701	29	0.65	694	15.55	746	37	0.83	2330	52.21
657	3	0.07	56	1.25	702	25	0.56	719	16.11	747	43	0.96	2373	53.17
658	1	0.02	57	1.28	703	15	0.34	734	16.45	748	36	0.81	2409	53.98
659	5	0.11	62	1.39	704	32	0.72	766	17.16	749	45	1.01	2454	54.99
660	6	0.13	68	1.52	705	24	0.54	790	17.70	750	44	0.99	2498	55.97
661	2	0.04	70	1.57	706	30	0.67	820	18.37	751	44	0.99	2542	56.96
662	7	0.16	77	1.73	707	26	0.58	846	18.96	752	47	1.05	2589	58.01
663	4	0.09	81	1.81	708	25	0.56	871	19.52	753	44	0.99	2633	59.00
664	4	0.09	85	1.90	709	33	0.74	904	20.26	754	54	1.21	2687	60.21
665	6	0.13	91	2.04	710	27	0.60	931	20.86	755	50	1.12	2737	61.33
666	5	0.11	96	2.15	711	36	0.81	967	21.67	756	49	1.10	2786	62.42
667	5	0.11	101	2.26	712	30	0.67	997	22.34	757	54	1.21	2840	63.63
668	5	0.11	106	2.38	713	35	0.78	1032	23.12	758	57	1.28	2897	64.91
669	8	0.18	114	2.55	714	27	0.60	1059	23.73	759	47	1.05	2944	65.96
670	17	0.38	131	2.94	715	35	0.78	1094	24.51	760	38	0.85	2982	66.82
671	8	0.18	139	3.11	716	26	0.58	1120	25.10	761	41	0.92	3023	67.73
672	11	0.25	150	3.36	717	35	0.78	1155	25.88	762	32	0.72	3055	68.45
673	16	0.36	166	3.72	718	30	0.67	1185	26.55	763	52	1.17	3107	69.62
674	13	0.29	179	4.01	719	35	0.78	1220	27.34	764	37	0.83	3144	70.45
675	7	0.16	186	4.17	720	41	0.92	1261	28.25	765	42	0.94	3186	71.39
676	6	0.13	192	4.30	721	32	0.72	1293	28.97	766	45	1.01	3231	72.40
677	15	0.34	207	4.64	722	33	0.74	1326	29.71	767	35	0.78	3266	73.18
678	18	0.40	225	5.04	723	35	0.78	1361	30.50	768	37	0.83	3303	74.01
679	20	0.45	245	5.49	724	36	0.81	1397	31.30	769	42	0.94	3345	74.95
680	16	0.36	261	5.85	725	36	0.81	1433	32.11	770	35	0.78	3380	75.73
681	12	0.27	273	6.12	726	36	0.81	1469	32.92	771	36	0.81	3416	76.54
682	16	0.36	289	6.48	727	36	0.81	1505	33.72	772	34	0.76	3450	77.30
683	13	0.29	302	6.77	728	43	0.96	1548	34.69	773	32	0.72	3482	78.02
684	18	0.40	320	7.17	729	40	0.90	1588	35.58	774	32	0.72	3514	78.74
685	21	0.47	341	7.64	730	36	0.81	1624	36.39	775	41	0.92	3555	79.65
686	23	0.52	364	8.16	731	35	0.78	1659	37.17	776	31	0.69	3586	80.35
687	19	0.43	383	8.58	732	38	0.85	1697	38.02	777	31	0.69	3617	81.04
688	25	0.56	408	9.14	733	44	0.99	1741	39.01	778	36	0.81	3653	81.85
689	22	0.49	430	9.63	734	42	0.94	1783	39.95	779	36	0.81	3689	82.66
690	22	0.49	452	10.13	735	41	0.92	1824	40.87	780	30	0.67	3719	83.33
691	20	0.45	472	10.58	736	46	1.03	1870	41.90	781	28	0.63	3747	83.96
692	16	0.36	488	10.93	737	41	0.92	1911	42.82	782	41	0.92	3788	84.88
693	13	0.29	501	11.23	738	42	0.94	1953	43.76	783	29	0.65	3817	85.53
694	19	0.43	520	11.65	739	43	0.96	1996	44.72	784	25	0.56	3842	86.09

Table 84. ELA Grade 8 Scale Score Distribution (continued)

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
785	36	0.81	3878	86.89	831	3	0.07	4427	99.19
786	34	0.76	3912	87.65	832	2	0.04	4429	99.24
787	34	0.76	3946	88.42	833	4	0.09	4433	99.33
788	28	0.63	3974	89.04	834	1	0.02	4434	99.35
789	17	0.38	3991	89.42	835	6	0.13	4440	99.48
790	21	0.47	4012	89.89	836	2	0.04	4442	99.53
791	22	0.49	4034	90.39	837	1	0.02	4443	99.55
792	15	0.34	4049	90.72	838	2	0.04	4445	99.60
793	18	0.40	4067	91.13	839	3	0.07	4448	99.66
794	24	0.54	4091	91.66	841	1	0.02	4449	99.69
795	23	0.52	4114	92.18	842	4	0.09	4453	99.78
796	30	0.67	4144	92.85	843	2	0.04	4455	99.82
797	19	0.43	4163	93.28	844	1	0.02	4456	99.84
798	11	0.25	4174	93.52	846	1	0.02	4457	99.87
799	8	0.18	4182	93.70	848	1	0.02	4458	99.89
800	18	0.40	4200	94.11	850	5	0.11	4463	100.00
801	15	0.34	4215	94.44					
802	13	0.29	4228	94.73					
803	12	0.27	4240	95.00					
804	9	0.20	4249	95.21					
805	15	0.34	4264	95.54					
806	11	0.25	4275	95.79					
807	14	0.31	4289	96.10					
808	11	0.25	4300	96.35					
809	5	0.11	4305	96.46					
810	9	0.20	4314	96.66					
811	11	0.25	4325	96.91					
812	5	0.11	4330	97.02					
813	5	0.11	4335	97.13					
814	11	0.25	4346	97.38					
815	7	0.16	4353	97.54					
816	9	0.20	4362	97.74					
817	7	0.16	4369	97.89					
818	8	0.18	4377	98.07					
819	8	0.18	4385	98.25					
821	5	0.11	4390	98.36					
822	6	0.13	4396	98.50					
823	3	0.07	4399	98.57					
824	3	0.07	4402	98.63					
825	4	0.09	4406	98.72					
826	4	0.09	4410	98.81					
827	6	0.13	4416	98.95					
828	1	0.02	4417	98.97					
829	3	0.07	4420	99.04					
830	4	0.09	4424	99.13					

Table 85. CSLA Grade 3 Scale Score Distribution

SS	Freq	%	Cum. Freq	Cum. %	SS	Freq	%	Cum. Freq	Cum. %
650	11	1.31	11	1.31	769	4	0.48	818	97.73
668	18	2.15	29	3.46	770	2	0.24	820	97.97
678	21	2.51	50	5.97	773	4	0.48	824	98.45
686	20	2.39	70	8.36	775	3	0.36	827	98.81
692	36	4.30	106	12.66	777	2	0.24	829	99.04
696	26	3.11	132	15.77	782	1	0.12	830	99.16
700	28	3.35	160	19.12	785	1	0.12	831	99.28
704	29	3.46	189	22.58	788	1	0.12	832	99.40
707	44	5.26	233	27.84	792	1	0.12	833	99.52
710	34	4.06	267	31.90	795	1	0.12	834	99.64
712	29	3.46	296	35.36	800	2	0.24	836	99.88
715	20	2.39	316	37.75	850	1	0.12	837	100.00
717	24	2.87	340	40.62					
719	23	2.75	363	43.37					
721	33	3.94	396	47.31					
723	19	2.27	415	49.58					
725	26	3.11	441	52.69					
726	19	2.27	460	54.96					
728	19	2.27	479	57.23					
730	22	2.63	501	59.86					
731	27	3.23	528	63.08					
733	18	2.15	546	65.23					
734	20	2.39	566	67.62					
736	10	1.19	576	68.82					
737	21	2.51	597	71.33					
738	15	1.79	612	73.12					
740	17	2.03	629	75.15					
741	12	1.43	641	76.58					
743	16	1.91	657	78.49					
744	15	1.79	672	80.29					
745	12	1.43	684	81.72					
747	11	1.31	695	83.03					
748	13	1.55	708	84.59					
750	19	2.27	727	86.86					
751	12	1.43	739	88.29					
752	10	1.19	749	89.49					
754	14	1.67	763	91.16					
755	8	0.96	771	92.11					
757	10	1.19	781	93.31					
758	6	0.72	787	94.03					
760	10	1.19	797	95.22					
762	5	0.60	802	95.82					
763	9	1.08	811	96.89					

Table 86. CSLA Grade 4 Scale Score Distribution

SS	Freq	%	Cum. Freq	Cum. %
672	1	1.89	1	1.89
686	1	1.89	2	3.77
691	3	5.66	5	9.43
695	2	3.77	7	13.21
698	2	3.77	9	16.98
700	2	3.77	11	20.75
704	2	3.77	13	24.53
707	2	3.77	15	28.30
719	1	1.89	16	30.19
729	1	1.89	17	32.08
730	2	3.77	19	35.85
732	1	1.89	20	37.74
736	2	3.77	22	41.51
737	2	3.77	24	45.28
740	1	1.89	25	47.17
741	3	5.66	28	52.83
743	2	3.77	30	56.60
744	2	3.77	32	60.38
745	3	5.66	35	66.04
747	1	1.89	36	67.92
748	2	3.77	38	71.70
749	1	1.89	39	73.58
752	1	1.89	40	75.47
755	1	1.89	41	77.36
756	2	3.77	43	81.13
757	2	3.77	45	84.91
759	1	1.89	46	86.79
760	3	5.66	49	92.45
762	1	1.89	50	94.34
765	1	1.89	51	96.23
772	1	1.89	52	98.11
785	1	1.89	53	100.00

Table 87. Science Grade 8 Cumulative Frequency Distribution of Scale Scores

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
300	1,404	3.80	1,404	3.80	345	24	0.06	2,174	5.88	390	28	0.08	3,438	9.30
301	9	0.02	1,413	3.82	346	25	0.07	2,199	5.95	391	29	0.08	3,467	9.38
302	13	0.04	1,426	3.86	347	22	0.06	2,221	6.01	392	41	0.11	3,508	9.49
303	14	0.04	1,440	3.90	348	20	0.05	2,241	6.06	393	43	0.12	3,551	9.61
304	11	0.03	1,451	3.93	349	21	0.06	2,262	6.12	394	23	0.06	3,574	9.67
305	29	0.08	1,480	4.00	350	23	0.06	2,285	6.18	395	50	0.14	3,624	9.80
306	13	0.04	1,493	4.04	351	20	0.05	2,305	6.24	396	29	0.08	3,653	9.88
307	19	0.05	1,512	4.09	352	23	0.06	2,328	6.30	397	39	0.11	3,692	9.99
308	13	0.04	1,525	4.13	353	33	0.09	2,361	6.39	398	31	0.08	3,723	10.07
309	21	0.06	1,546	4.18	354	17	0.05	2,378	6.43	399	39	0.11	3,762	10.18
310	17	0.05	1,563	4.23	355	20	0.05	2,398	6.49	400	34	0.09	3,796	10.27
311	16	0.04	1,579	4.27	356	21	0.06	2,419	6.54	401	26	0.07	3,822	10.34
312	13	0.04	1,592	4.31	357	21	0.06	2,440	6.60	402	39	0.11	3,861	10.45
313	19	0.05	1,611	4.36	358	15	0.04	2,455	6.64	403	43	0.12	3,904	10.56
314	13	0.04	1,624	4.39	359	25	0.07	2,480	6.71	404	36	0.10	3,940	10.66
315	15	0.04	1,639	4.43	360	30	0.08	2,510	6.79	405	33	0.09	3,973	10.75
316	10	0.03	1,649	4.46	361	30	0.08	2,540	6.87	406	39	0.11	4,012	10.85
317	13	0.04	1,662	4.50	362	29	0.08	2,569	6.95	407	46	0.12	4,058	10.98
318	22	0.06	1,684	4.56	363	35	0.09	2,604	7.05	408	46	0.12	4,104	11.10
319	15	0.04	1,699	4.60	364	35	0.09	2,639	7.14	409	52	0.14	4,156	11.24
320	21	0.06	1,720	4.65	365	38	0.10	2,677	7.24	410	40	0.11	4,196	11.35
321	8	0.02	1,728	4.68	366	22	0.06	2,699	7.30	411	56	0.15	4,252	11.50
322	13	0.04	1,741	4.71	367	29	0.08	2,728	7.38	412	47	0.13	4,299	11.63
323	15	0.04	1,756	4.75	368	34	0.09	2,762	7.47	413	35	0.09	4,334	11.73
324	15	0.04	1,771	4.79	369	24	0.06	2,786	7.54	414	46	0.12	4,380	11.85
325	14	0.04	1,785	4.83	370	28	0.08	2,814	7.61	415	49	0.13	4,429	11.98
326	14	0.04	1,799	4.87	371	31	0.08	2,845	7.70	416	41	0.11	4,470	12.09
327	18	0.05	1,817	4.92	372	27	0.07	2,872	7.77	417	54	0.15	4,524	12.24
328	22	0.06	1,839	4.98	373	22	0.06	2,894	7.83	418	45	0.12	4,569	12.36
329	26	0.07	1,865	5.05	374	29	0.08	2,923	7.91	419	53	0.14	4,622	12.51
330	16	0.04	1,881	5.09	375	22	0.06	2,945	7.97	420	56	0.15	4,678	12.66
331	17	0.05	1,898	5.14	376	30	0.08	2,975	8.05	421	39	0.11	4,717	12.76
332	19	0.05	1,917	5.19	377	28	0.08	3,003	8.12	422	40	0.11	4,757	12.87
333	18	0.05	1,935	5.24	378	32	0.09	3,035	8.21	423	53	0.14	4,810	13.01
334	19	0.05	1,954	5.29	379	27	0.07	3,062	8.28	424	53	0.14	4,863	13.16
335	21	0.06	1,975	5.34	380	26	0.07	3,088	8.35	425	41	0.11	4,904	13.27
336	17	0.05	1,992	5.39	381	35	0.09	3,123	8.45	426	56	0.15	4,960	13.42
337	22	0.06	2,014	5.45	382	29	0.08	3,152	8.53	427	49	0.13	5,009	13.55
338	10	0.03	2,024	5.48	383	28	0.08	3,180	8.60	428	60	0.16	5,069	13.71
339	22	0.06	2,046	5.54	384	26	0.07	3,206	8.67	429	61	0.17	5,130	13.88
340	20	0.05	2,066	5.59	385	52	0.14	3,258	8.81	430	45	0.12	5,175	14.00
341	19	0.05	2,085	5.64	386	43	0.12	3,301	8.93	431	49	0.13	5,224	14.13
342	16	0.04	2,101	5.68	387	44	0.12	3,345	9.05	432	40	0.11	5,264	14.24
343	25	0.07	2,126	5.75	388	34	0.09	3,379	9.14	433	60	0.16	5,324	14.40
344	24	0.06	2,150	5.82	389	31	0.08	3,410	9.23	434	57	0.15	5,381	14.56

Table 88. Science Grade 8 Cumulative Frequency Distribution of Scale Scores (continued)

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
435	57	0.15	5,438	14.71	480	81	0.22	8,352	22.60	525	86	0.23	12,280	33.22
436	78	0.21	5,516	14.92	481	67	0.18	8,419	22.78	526	102	0.28	12,382	33.50
437	56	0.15	5,572	15.08	482	74	0.20	8,493	22.98	527	114	0.31	12,496	33.81
438	54	0.15	5,626	15.22	483	78	0.21	8,571	23.19	528	107	0.29	12,603	34.10
439	62	0.17	5,688	15.39	484	66	0.18	8,637	23.37	529	108	0.29	12,711	34.39
440	67	0.18	5,755	15.57	485	80	0.22	8,717	23.58	530	109	0.29	12,820	34.69
441	61	0.17	5,816	15.74	486	71	0.19	8,788	23.78	531	124	0.34	12,944	35.02
442	49	0.13	5,865	15.87	487	63	0.17	8,851	23.95	532	121	0.33	13,065	35.35
443	36	0.10	5,901	15.97	488	91	0.25	8,942	24.19	533	113	0.31	13,178	35.65
444	43	0.12	5,944	16.08	489	68	0.18	9,010	24.38	534	92	0.25	13,270	35.90
445	54	0.15	5,998	16.23	490	76	0.21	9,086	24.58	535	94	0.25	13,364	36.16
446	61	0.17	6,059	16.39	491	86	0.23	9,172	24.82	536	95	0.26	13,459	36.41
447	62	0.17	6,121	16.56	492	90	0.24	9,262	25.06	537	85	0.23	13,544	36.64
448	64	0.17	6,185	16.73	493	79	0.21	9,341	25.27	538	97	0.26	13,641	36.91
449	56	0.15	6,241	16.89	494	82	0.22	9,423	25.49	539	79	0.21	13,720	37.12
450	67	0.18	6,308	17.07	495	70	0.19	9,493	25.68	540	104	0.28	13,824	37.40
451	55	0.15	6,363	17.22	496	70	0.19	9,563	25.87	541	110	0.30	13,934	37.70
452	72	0.19	6,435	17.41	497	96	0.26	9,659	26.13	542	100	0.27	14,034	37.97
453	60	0.16	6,495	17.57	498	83	0.22	9,742	26.36	543	109	0.29	14,143	38.26
454	69	0.19	6,564	17.76	499	94	0.25	9,836	26.61	544	108	0.29	14,251	38.56
455	65	0.18	6,629	17.94	500	85	0.23	9,921	26.84	545	120	0.32	14,371	38.88
456	54	0.15	6,683	18.08	501	88	0.24	10,009	27.08	546	103	0.28	14,474	39.16
457	75	0.20	6,758	18.28	502	100	0.27	10,109	27.35	547	102	0.28	14,576	39.44
458	52	0.14	6,810	18.42	503	89	0.24	10,198	27.59	548	117	0.32	14,693	39.75
459	65	0.18	6,875	18.60	504	88	0.24	10,286	27.83	549	117	0.32	14,810	40.07
460	75	0.20	6,950	18.80	505	77	0.21	10,363	28.04	550	111	0.30	14,921	40.37
461	66	0.18	7,016	18.98	506	102	0.28	10,465	28.31	551	101	0.27	15,022	40.64
462	66	0.18	7,082	19.16	507	100	0.27	10,565	28.58	552	110	0.30	15,132	40.94
463	63	0.17	7,145	19.33	508	115	0.31	10,680	28.90	553	136	0.37	15,268	41.31
464	74	0.20	7,219	19.53	509	107	0.29	10,787	29.18	554	109	0.29	15,377	41.60
465	77	0.21	7,296	19.74	510	91	0.25	10,878	29.43	555	107	0.29	15,484	41.89
466	80	0.22	7,376	19.96	511	94	0.25	10,972	29.69	556	108	0.29	15,592	42.19
467	71	0.19	7,447	20.15	512	109	0.29	11,081	29.98	557	112	0.30	15,704	42.49
468	61	0.17	7,508	20.31	513	87	0.24	11,168	30.22	558	123	0.33	15,827	42.82
469	56	0.15	7,564	20.46	514	81	0.22	11,249	30.43	559	124	0.34	15,951	43.16
470	58	0.16	7,622	20.62	515	103	0.28	11,352	30.71	560	110	0.30	16,061	43.45
471	67	0.18	7,689	20.80	516	86	0.23	11,438	30.95	561	123	0.33	16,184	43.79
472	81	0.22	7,770	21.02	517	91	0.25	11,529	31.19	562	124	0.34	16,308	44.12
473	72	0.19	7,842	21.22	518	87	0.24	11,616	31.43	563	109	0.29	16,417	44.42
474	72	0.19	7,914	21.41	519	112	0.30	11,728	31.73	564	121	0.33	16,538	44.74
475	68	0.18	7,982	21.60	520	106	0.29	11,834	32.02	565	110	0.30	16,648	45.04
476	73	0.20	8,055	21.79	521	83	0.22	11,917	32.24	566	125	0.34	16,773	45.38
477	66	0.18	8,121	21.97	522	94	0.25	12,011	32.50	567	121	0.33	16,894	45.71
478	80	0.22	8,201	22.19	523	89	0.24	12,100	32.74	568	109	0.29	17,003	46.00
479	70	0.19	8,271	22.38	524	94	0.25	12,194	32.99	569	122	0.33	17,125	46.33

Table 89. Science Grade 8 Cumulative Frequency Distribution of Scale Scores (continued)

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
570	108	0.29	17,233	46.62	615	132	0.36	22,797	61.68	660	114	0.31	28,311	76.60
571	135	0.37	17,368	46.99	616	114	0.31	22,911	61.99	661	110	0.30	28,421	76.89
572	105	0.28	17,473	47.27	617	128	0.35	23,039	62.33	662	114	0.31	28,535	77.20
573	118	0.32	17,591	47.59	618	126	0.34	23,165	62.67	663	124	0.34	28,659	77.54
574	111	0.30	17,702	47.89	619	153	0.41	23,318	63.09	664	120	0.32	28,779	77.86
575	122	0.33	17,824	48.22	620	131	0.35	23,449	63.44	665	118	0.32	28,897	78.18
576	112	0.30	17,936	48.53	621	136	0.37	23,585	63.81	666	109	0.29	29,006	78.48
577	135	0.37	18,071	48.89	622	142	0.38	23,727	64.19	667	101	0.27	29,107	78.75
578	136	0.37	18,207	49.26	623	102	0.28	23,829	64.47	668	105	0.28	29,212	79.03
579	119	0.32	18,326	49.58	624	116	0.31	23,945	64.78	669	91	0.25	29,303	79.28
580	136	0.37	18,462	49.95	625	118	0.32	24,063	65.10	670	97	0.26	29,400	79.54
581	145	0.39	18,607	50.34	626	130	0.35	24,193	65.46	671	104	0.28	29,504	79.82
582	120	0.32	18,727	50.67	627	114	0.31	24,307	65.76	672	120	0.32	29,624	80.15
583	126	0.34	18,853	51.01	628	134	0.36	24,441	66.13	673	94	0.25	29,718	80.40
584	137	0.37	18,990	51.38	629	127	0.34	24,568	66.47	674	108	0.29	29,826	80.70
585	123	0.33	19,113	51.71	630	113	0.31	24,681	66.78	675	106	0.29	29,932	80.98
586	138	0.37	19,251	52.08	631	109	0.29	24,790	67.07	676	111	0.30	30,043	81.28
587	119	0.32	19,370	52.41	632	121	0.33	24,911	67.40	677	102	0.28	30,145	81.56
588	133	0.36	19,503	52.77	633	118	0.32	25,029	67.72	678	92	0.25	30,237	81.81
589	126	0.34	19,629	53.11	634	121	0.33	25,150	68.04	679	96	0.26	30,333	82.07
590	143	0.39	19,772	53.49	635	121	0.33	25,271	68.37	680	111	0.30	30,444	82.37
591	114	0.31	19,886	53.80	636	142	0.38	25,413	68.76	681	91	0.25	30,535	82.61
592	113	0.31	19,999	54.11	637	132	0.36	25,545	69.11	682	78	0.21	30,613	82.83
593	111	0.30	20,110	54.41	638	133	0.36	25,678	69.47	683	99	0.27	30,712	83.09
594	113	0.31	20,223	54.71	639	130	0.35	25,808	69.82	684	102	0.28	30,814	83.37
595	132	0.36	20,355	55.07	640	107	0.29	25,915	70.11	685	86	0.23	30,900	83.60
596	126	0.34	20,481	55.41	641	137	0.37	26,052	70.49	686	96	0.26	30,996	83.86
597	104	0.28	20,585	55.69	642	123	0.33	26,175	70.82	687	87	0.24	31,083	84.10
598	140	0.38	20,725	56.07	643	131	0.35	26,306	71.17	688	96	0.26	31,179	84.36
599	129	0.35	20,854	56.42	644	113	0.31	26,419	71.48	689	89	0.24	31,268	84.60
600	136	0.37	20,990	56.79	645	108	0.29	26,527	71.77	690	93	0.25	31,361	84.85
601	109	0.29	21,099	57.08	646	98	0.27	26,625	72.04	691	101	0.27	31,462	85.12
602	116	0.31	21,215	57.40	647	114	0.31	26,739	72.34	692	89	0.24	31,551	85.36
603	122	0.33	21,337	57.73	648	117	0.32	26,856	72.66	693	92	0.25	31,643	85.61
604	136	0.37	21,473	58.10	649	107	0.29	26,963	72.95	694	107	0.29	31,750	85.90
605	131	0.35	21,604	58.45	650	118	0.32	27,081	73.27	695	82	0.22	31,832	86.12
606	100	0.27	21,704	58.72	651	129	0.35	27,210	73.62	696	78	0.21	31,910	86.33
607	120	0.32	21,824	59.05	652	108	0.29	27,318	73.91	697	87	0.24	31,997	86.57
608	129	0.35	21,953	59.40	653	140	0.38	27,458	74.29	698	83	0.22	32,080	86.79
609	134	0.36	22,087	59.76	654	112	0.30	27,570	74.59	699	74	0.20	32,154	86.99
610	125	0.34	22,212	60.10	655	130	0.35	27,700	74.94	700	88	0.24	32,242	87.23
611	134	0.36	22,346	60.46	656	115	0.31	27,815	75.25	701	82	0.22	32,324	87.45
612	106	0.29	22,452	60.75	657	136	0.37	27,951	75.62	702	86	0.23	32,410	87.69
613	118	0.32	22,570	61.06	658	143	0.39	28,094	76.01	703	89	0.24	32,499	87.93
614	95	0.26	22,665	61.32	659	103	0.28	28,197	76.29	704	73	0.20	32,572	88.13

Table 90. Science Grade 8 Cumulative Frequency Distribution of Scale Scores (continued)

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
705	76	0.21	32,648	88.33	750	49	0.13	35,214	95.27	795	17	0.05	36,434	98.57
706	77	0.21	32,725	88.54	751	43	0.12	35,257	95.39	796	25	0.07	36,459	98.64
707	67	0.18	32,792	88.72	752	38	0.10	35,295	95.49	797	9	0.02	36,468	98.67
708	86	0.23	32,878	88.95	753	46	0.12	35,341	95.62	798	13	0.04	36,481	98.70
709	65	0.18	32,943	89.13	754	50	0.14	35,391	95.75	799	12	0.03	36,493	98.73
710	86	0.23	33,029	89.36	755	35	0.09	35,426	95.85	800	18	0.05	36,511	98.78
711	79	0.21	33,108	89.58	756	41	0.11	35,467	95.96	801	9	0.02	36,520	98.81
712	67	0.18	33,175	89.76	757	35	0.09	35,502	96.05	802	16	0.04	36,536	98.85
713	74	0.20	33,249	89.96	758	33	0.09	35,535	96.14	803	15	0.04	36,551	98.89
714	54	0.15	33,303	90.10	759	25	0.07	35,560	96.21	804	9	0.02	36,560	98.92
715	77	0.21	33,380	90.31	760	45	0.12	35,605	96.33	805	12	0.03	36,572	98.95
716	49	0.13	33,429	90.44	761	34	0.09	35,639	96.42	806	13	0.04	36,585	98.98
717	64	0.17	33,493	90.62	762	35	0.09	35,674	96.52	807	13	0.04	36,598	99.02
718	74	0.20	33,567	90.82	763	30	0.08	35,704	96.60	808	5	0.01	36,603	99.03
719	54	0.15	33,621	90.96	764	22	0.06	35,726	96.66	809	13	0.04	36,616	99.07
720	44	0.12	33,665	91.08	765	40	0.11	35,766	96.77	810	17	0.05	36,633	99.11
721	70	0.19	33,735	91.27	766	27	0.07	35,793	96.84	811	9	0.02	36,642	99.14
722	68	0.18	33,803	91.46	767	29	0.08	35,822	96.92	812	14	0.04	36,656	99.17
723	64	0.17	33,867	91.63	768	27	0.07	35,849	96.99	813	11	0.03	36,667	99.20
724	64	0.17	33,931	91.80	769	21	0.06	35,870	97.05	814	12	0.03	36,679	99.24
725	59	0.16	33,990	91.96	770	23	0.06	35,893	97.11	815	15	0.04	36,694	99.28
726	54	0.15	34,044	92.11	771	21	0.06	35,914	97.17	816	12	0.03	36,706	99.31
727	57	0.15	34,101	92.26	772	23	0.06	35,937	97.23	817	5	0.01	36,711	99.32
728	54	0.15	34,155	92.41	773	34	0.09	35,971	97.32	818	8	0.02	36,719	99.35
729	56	0.15	34,211	92.56	774	21	0.06	35,992	97.38	819	6	0.02	36,725	99.36
730	53	0.14	34,264	92.70	775	21	0.06	36,013	97.44	820	11	0.03	36,736	99.39
731	49	0.13	34,313	92.84	776	28	0.08	36,041	97.51	821	4	0.01	36,740	99.40
732	45	0.12	34,358	92.96	777	25	0.07	36,066	97.58	822	11	0.03	36,751	99.43
733	55	0.15	34,413	93.11	778	30	0.08	36,096	97.66	823	6	0.02	36,757	99.45
734	59	0.16	34,472	93.27	779	22	0.06	36,118	97.72	824	3	0.01	36,760	99.46
735	48	0.13	34,520	93.40	780	25	0.07	36,143	97.79	825	8	0.02	36,768	99.48
736	58	0.16	34,578	93.55	781	16	0.04	36,159	97.83	826	7	0.02	36,775	99.50
737	49	0.13	34,627	93.69	782	20	0.05	36,179	97.88	827	5	0.01	36,780	99.51
738	42	0.11	34,669	93.80	783	20	0.05	36,199	97.94	828	7	0.02	36,787	99.53
739	51	0.14	34,720	93.94	784	20	0.05	36,219	97.99	829	6	0.02	36,793	99.55
740	41	0.11	34,761	94.05	785	22	0.06	36,241	98.05	830	6	0.02	36,799	99.56
741	49	0.13	34,810	94.18	786	26	0.07	36,267	98.12	831	5	0.01	36,804	99.58
742	44	0.12	34,854	94.30	787	15	0.04	36,282	98.16	832	2	0.01	36,806	99.58
743	39	0.11	34,893	94.40	788	21	0.06	36,303	98.22	833	4	0.01	36,810	99.59
744	51	0.14	34,944	94.54	789	24	0.06	36,327	98.28	834	7	0.02	36,817	99.61
745	41	0.11	34,985	94.65	790	18	0.05	36,345	98.33	835	3	0.01	36,820	99.62
746	52	0.14	35,037	94.79	791	15	0.04	36,360	98.37	836	3	0.01	36,823	99.63
747	37	0.10	35,074	94.89	792	27	0.07	36,387	98.45	837	4	0.01	36,827	99.64
748	46	0.12	35,120	95.02	793	16	0.04	36,403	98.49	838	3	0.01	36,830	99.65
749	45	0.12	35,165	95.14	794	14	0.04	36,417	98.53	839	2	0.01	36,832	99.65

Table 91. Science Grade 8 Cumulative Frequency Distribution of Scale Scores (continued)

SS	Freq	%	Cum Freq	Cum %	SS	Freq	%	Cum Freq	Cum %
840	6	0.02	36,838	99.67	889	1	0.00	36,950	99.97
841	9	0.02	36,847	99.69	890	1	0.00	36,951	99.97
842	7	0.02	36,854	99.71	896	1	0.00	36,952	99.98
843	2	0.01	36,856	99.72	898	1	0.00	36,953	99.98
844	3	0.01	36,859	99.72	900	8	0.02	36,961	100.00
845	3	0.01	36,862	99.73					
846	4	0.01	36,866	99.74					
847	2	0.01	36,868	99.75					
848	5	0.01	36,873	99.76					
849	4	0.01	36,877	99.77					
850	5	0.01	36,882	99.79					
851	1	0.00	36,883	99.79					
852	2	0.01	36,885	99.79					
853	3	0.01	36,888	99.80					
854	2	0.01	36,890	99.81					
855	1	0.00	36,891	99.81					
856	2	0.01	36,893	99.82					
857	5	0.01	36,898	99.83					
858	1	0.00	36,899	99.83					
859	4	0.01	36,903	99.84					
860	2	0.01	36,905	99.85					
861	3	0.01	36,908	99.86					
862	1	0.00	36,909	99.86					
863	3	0.01	36,912	99.87					
864	1	0.00	36,913	99.87					
865	3	0.01	36,916	99.88					
866	1	0.00	36,917	99.88					
867	1	0.00	36,918	99.88					
868	2	0.01	36,920	99.89					
869	2	0.01	36,922	99.89					
870	2	0.01	36,924	99.90					
871	2	0.01	36,926	99.91					
872	3	0.01	36,929	99.91					
874	1	0.00	36,930	99.92					
875	2	0.01	36,932	99.92					
876	1	0.00	36,933	99.92					
877	3	0.01	36,936	99.93					
879	2	0.01	36,938	99.94					
880	1	0.00	36,939	99.94					
881	2	0.01	36,941	99.95					
883	1	0.00	36,942	99.95					
884	2	0.01	36,944	99.95					
885	2	0.01	36,946	99.96					
886	1	0.00	36,947	99.96					
888	2	0.01	36,949	99.97					

Table 92. Scale Score Performance Summary

Content Area	Grade	N	Mean	SD	Median	2019 Scale Scores	
						Mean	SD
MATH	3	5,941	741	37.7	742	740	36.4
	4	46,782	729	33.5	729	735	32.5
	5	5,935	739	34.1	738	738	33.9
	6	44,817	727	32.4	726	732	31.0
	7	5,510	733	26.9	731	735	29.4
	8	39,202	730	38.8	726	736	41.2
ELA	3	45,191	736	42.6	737	740	40.7
	4	5,725	743	34.7	747	745	35.9
	5	46,917	746	32.4	747	747	34.1
	6	5,439	738	30.3	739	743	32.8
	7	42,934	742	37.0	742	745	38.5
	8	4,463	743	38.1	744	745	40.3
ELA – Reading Claim	3	45,191	145	17.6	144	146	16.7
	4	5,725	149	14.8	150	148	14.7
	5	46,917	149	13.4	149	149	14.0
	6	5,439	147	12.9	147	147	13.5
	7	42,934	147	15.4	147	148	15.7
	8	4,463	149	16.0	149	148	16.3
CSLA	3	837	723	25.5	725	733	25.7
	4	53	733	26.3	741	729	23.5
CSLA – Reading Claim	3	837	140	10.0	140	143	10.0
	4	53	143	10.3	147	141	8.9
Science	8	36,961	568	120.4	581	580	126.6
Physical SC Subclaim	8	36,961	568	129.8	579	580	135.5
Life SC Subclaim	8	36,961	562	130.8	575	576	137.5
Earth Systems SC Subclaim	8	36,961	568	133.0	584	578	137.8
SINS Subclaim	8	36,961	570	133.5	584	580	138.6
Science SRs	8	36,961	571	127.1	582	580	132.1
Science CRs	8	36,961	564	126.4	579	578	133.5

Note: SINS= Scientific Investigations and the Nature of Science; SRs=Selected-Response Items;
CRs=Constructed-Response Items

Table 93. Percentage of Performance Levels

Content Area		2021 Performance Level %					2019 Performance Level %				
	Grade	1	2	3	4	5	1	2	3	4	5
MATH	3	14.98%	17.87%	24.54%	33.47%	9.14%	14.30%	18.94%	25.73%	32.97%	8.05%
	4	20.09%	24.94%	26.45%	26.24%	2.27%	14.70%	24.45%	27.25%	30.70%	2.90%
	5	13.72%	23.18%	24.45%	31.46%	7.19%	13.05%	24.25%	27.02%	28.74%	6.93%
	6	21.03%	27.11%	27.73%	20.94%	3.20%	14.42%	27.63%	28.40%	25.58%	3.96%
	7	10.00%	30.93%	31.80%	24.74%	2.54%	10.82%	26.02%	31.57%	27.58%	4.01%
	8	22.49%	25.49%	22.49%	24.80%	4.73%	20.18%	19.67%	23.27%	30.67%	6.21%
ELA	3	21.54%	17.95%	21.37%	34.90%	4.23%	17.26%	18.30%	23.16%	36.77%	4.51%
	4	12.37%	15.81%	25.89%	39.48%	6.46%	11.84%	14.67%	25.46%	38.39%	9.63%
	5	7.66%	19.21%	25.94%	42.56%	4.63%	9.01%	17.03%	25.56%	42.57%	5.83%
	6	10.04%	22.65%	30.78%	32.40%	4.14%	9.81%	18.26%	28.34%	36.33%	7.25%
	7	13.33%	19.08%	24.96%	29.64%	12.99%	13.35%	16.87%	23.25%	30.89%	15.64%
	8	14.21%	17.10%	23.68%	36.14%	8.87%	14.96%	16.19%	21.92%	35.56%	11.38%
CSLA	3	15.77%	33.81%	35.01%	14.46%	0.96%	8.48%	25.09%	38.89%	23.98%	3.57%
	4	16.98%	13.21%	43.40%	22.64%	3.77%	11.27%	29.69%	39.93%	16.01%	3.10%
Science	8	41.9%	31.7%	24.4%	2.0%		38.7%	29.9%	28.2%	3.3%	

Note: Percentages may not sum to 100 due to rounding.

Table 94. Mathematics Points Earned Summary by Subclaim

Subclaim	Grade	Mean	SD	Min	Max	Max Points Possible	Average Percent Correct
Subclaim A	3	11.9	5.2	0	22	22	54.27%
	4	10.6	6.0	0	24	24	44.43%
	5	11.6	6.0	0	23	23	50.49%
	6	6.2	4.4	0	20	20	30.94%
	7	7.1	4.6	0	23	23	30.63%
	8	9.5	4.9	0	24	24	39.84%
Subclaim B	3	5.1	2.5	0	9	9	57.05%
	4	2.6	1.9	0	7	7	37.45%
	5	3.7	2.3	0	8	8	46.34%
	6	3.9	2.2	0	10	10	38.58%
	7	3.0	1.9	0	8	8	37.81%
	8	2.6	2.0	0	7	7	37.59%
Subclaim C	3	3.5	2.5	0	11	11	31.94%
	4	2.8	2.9	0	11	11	25.53%
	5	2.5	2.5	0	11	11	22.83%
	6	3.3	3.2	0	11	11	30.35%
	7	2.6	2.8	0	11	11	23.26%
	8	1.8	2.2	0	11	11	16.33%
Subclaim D	3	3.1	2.2	0	9	9	34.88%
	4	2.8	2.3	0	9	9	31.25%
	5	2.5	2.5	0	9	9	27.38%
	6	2.3	2.3	0	9	9	24.94%
	7	2.2	2.2	0	9	9	24.70%
	8	2.7	2.5	0	9	9	29.94%

*One item was removed from scoring in Grade 6.

Table 95. ELA Points Earned Summary by Subclaim

Subclaim	Grade	Mean	SD	Min	Max	Max Points Possible	Average Percent Correct
RL	3	6.3	3.7	0	17	17	36.86%
	4	8.7	3.9	0	17	18	48.26%
	5	8.1	4.0	0	18	18	45.24%
	6	8.4	4.3	0	18	18	46.78%
	7	7.9	3.8	0	18	18	43.84%
	8	8.8	4.1	0	18	18	48.83%
RI	3	6.8	3.9	0	14	14	48.77%
	4	8.0	4.3	0	18	18	44.26%
	5	5.6	3.2	0	18	18	31.31%
	6	9.3	4.0	0	21	22	42.37%
	7	7.9	4.1	0	22	22	35.88%
	8	9.5	4.6	0	21	22	43.07%
RV	3	5.8	2.6	0	10	10	57.93%
	4	6.7	2.5	0	10	10	66.87%
	5	3.9	1.9	0	8	8	49.22%
	6	4.7	2.1	0	8	8	59.04%
	7	6.2	2.5	0	10	10	61.80%
	8	4.7	2.7	0	10	10	46.73%
WE (unweighted)	3	1.3	1.1	0	6	6	21.21%
	4	1.4	1.3	0	7	7	20.10%
	5	1.3	1.3	0	7	7	18.69%
	6	1.4	1.2	0	7	8	17.98%
	7	1.9	1.6	0	8	8	24.11%
	8	2.4	1.9	0	8	8	30.19%
WKL	3	1.2	1.2	0	6	6	20.30%
	4	1.5	1.4	0	6	6	25.03%
	5	1.2	1.2	0	6	6	20.29%
	6	1.3	1.4	0	6	6	21.81%
	7	1.9	1.6	0	6	6	31.43%
	8	2.3	1.9	0	6	6	38.82%

Table 96. CSLA Points Earned Summary by Subclaim

Subclaim	Grade	Mean	SD	Min	Max	Max Points Possible	Average Percent Correct
RL	3	6.0	4.0	0	17	17	35.44%
	4	9.9	5.0	1	18	20	49.34%
RI	3	3.1	2.4	0	12	12	26.11%
	4	5.4	3.8	0	17	18	30.11%
RV	3	3.5	2.7	0	10	10	34.59%
	4	3.3	2.3	0	8	8	41.68%
WE (unweighted)	3	1.6	1.5	0	6	6	26.21%
	4	2.5	1.8	0	6	7	35.06%
WKL	3	1.7	1.7	0	6	6	27.66%
	4	2.4	1.8	0	6	6	40.28%

*One item was removed from scoring in Grade 3.

Table 97. Grade 8 Science Percent Correct Performance Summary by GLE

Content Standard	GLE	Mean	SD	Average Percent Correct	Min Score	Max Score	Max Points Possible
Physical Science	1	2.9	2.0	41.5%	0	7	7
	2	3.1	1.8	44.0%	0	7	7
	3	2.0	1.5	34.0%	0	6	6
	4	3.3	1.7	42.0%	0	8	8
Life Science	1	4.4	2.5	39.5%	0	11	11
	2	4.4	3.3	34.2%	0	13	13
Earth Systems Science	1	2.2	1.8	37.2%	0	6	6
	2	2.6	1.7	43.1%	0	6	6
	3	3.9	2.3	48.9%	0	8	8
	4	1.8	1.7	25.8%	0	7	7

Table 98. Mathematics Grade 3 Selected-Response Item Classical Statistics

Item	Omit %	p-value	Item– Total Corr.
1	0.00%	0.79	0.49
2	0.60%	0.75	0.48
3	0.20%	0.72	0.54
4	2.70%	0.58	0.44
5	0.50%	0.50	0.60
6	3.10%	0.42	0.62
7	0.80%	0.46	0.56
8	2.20%	0.48	0.42
9	0.20%	0.61	0.52
10	0.40%	0.30	0.43
11	0.60%	0.80	0.47
12	0.50%	0.79	0.35
13	2.00%	0.45	0.59
14	0.60%	0.56	0.53
15	0.90%	0.25	0.39
16	0.00%	0.84	0.45
17	0.10%	0.37	0.59
18	0.10%	0.52	0.42
19	0.30%	0.66	0.52
20	2.90%	0.40	0.72
21	0.60%	0.65	0.61
22	0.20%	0.83	0.39
23	0.40%	0.54	0.65
24	0.50%	0.49	0.64
25	0.80%	0.64	0.61
26	0.20%	0.60	0.57
27	0.50%	0.71	0.49
28	1.60%	0.37	0.69
29	1.80%	0.48	0.49
30	2.90%	0.36	0.71
31	2.80%	0.33	0.75

Table 99. Mathematics Grade 3 Constructed-Response Item Classical Statistics

Item	Max Points	Omit %	0%	1%	2%	3%	4%	p-value	Item-Total Corr.
1	3	2.40	35.95	14.86	35.82	10.95		0.40	0.57
2	4	1.30	36.09	40.78	14.50	6.22	1.08	0.23	0.60

Table 100. Mathematics Grade 4 Selected-Response Item Classical Statistics

Item	Omit %	p-value	Item– Total Corr.
1	1.50%	0.21	0.54
2	0.30%	0.40	0.45
3	0.30%	0.62	0.52
4	0.70%	0.38	0.60
5	0.40%	0.67	0.49
6	1.70%	0.16	0.53
7	0.10%	0.70	0.58
8	1.90%	0.42	0.53
9	1.70%	0.15	0.56
10	1.30%	0.58	0.38
11	0.70%	0.33	0.54
12	1.90%	0.33	0.64
13	2.20%	0.27	0.71
14	0.50%	0.47	0.70
15	4.00%	0.50	0.46
16	4.60%	0.35	0.82
17	3.20%	0.37	0.75
18	0.60%	0.76	0.46
19	2.80%	0.42	0.54
20	0.50%	0.53	0.58
21	4.70%	0.38	0.42
22	0.60%	0.60	0.53
23	3.10%	0.36	0.59
24	2.90%	0.44	0.60
25	0.80%	0.31	0.53
26	1.40%	0.32	0.50
27	0.50%	0.61	0.62
28	5.70%	0.24	0.75

Table 101. Mathematics Grade 4 Constructed-Response Item Classical Statistics

Item	Max Point s	Omit %	0%	1%	2%	3%	4%	p- value	Item- Total Corr.
1	3	4.80	68.16	15.35	8.36	3.37		0.14	0.55
2	3	2.90	54.59	23.32	9.65	9.55		0.24	0.73

Table 102. Mathematics Grade 5 Selected-Response Item Classical Statistics

Item	Omit %	p-value	Item– Total Corr.
1	0.10%	0.70	0.54
2	0.10%	0.53	0.55
3	0.80%	0.36	0.45
4	0.50%	0.68	0.50
5	1.60%	0.39	0.61
6	0.40%	0.72	0.33
7	1.50%	0.66	0.55
8	0.20%	0.40	0.63
9	0.10%	0.64	0.44
10	0.00%	0.26	0.42
11	0.00%	0.72	0.52
12	0.10%	0.58	0.70
13	1.70%	0.39	0.59
14	0.30%	0.56	0.61
15	1.40%	0.27	0.78
16	1.50%	0.23	0.76
17	0.30%	0.56	0.50
18	0.00%	0.84	0.25
19	0.80%	0.50	0.63
20	2.20%	0.47	0.41
21	0.20%	0.48	0.52
22	0.60%	0.39	0.57
23	0.60%	0.46	0.54
24	0.20%	0.34	0.46
25	0.90%	0.39	0.75
26	0.10%	0.47	0.74
27	0.60%	0.32	0.62
28	2.70%	0.30	0.77

Table 103. Mathematics Grade 5 Constructed-Response Item Classical Statistics

Item	Max Point s	Omit %	0%	1%	2%	3%	4%	p- value	Item- Total Corr.
1	3	3.80	53.15	29.30	10.82	2.97		0.20	0.66
2	4	1.60	46.76	19.95	16.40	7.48	7.87	0.27	0.71

Table 104. Mathematics Grade 6 Selected-Response Item Classical Statistics

Item	Omit %	p-value	Item– Total Corr.
1	1.00%	0.51	0.49
2	0.20%	0.21	0.32
3	0.20%	0.58	0.52
4	0.30%	0.38	0.44
5	0.40%	0.19	0.45
6	0.60%	0.39	0.16
7	0.50%	0.60	0.41
8	0.60%	0.28	0.49
9	0.80%	0.09	0.38
10	3.40%	0.16	0.35
11	0.40%	0.40	0.40
12	0.00%	0.58	0.55
13	0.30%	0.28	0.48
14	0.80%	0.27	0.52
15	1.70%	0.21	0.51
16	0.20%	0.25	0.58
17	0.20%	0.32	0.52
18	1.90%	0.20	0.54
19	3.90%	0.25	0.64
20	2.80%	0.22	0.61
21	1.20%	0.25	0.74
22	0.20%	0.41	0.51
23	0.50%	0.35	0.65
24	3.10%	0.22	0.80

Table 105. Mathematics Grade 6 Constructed-Response Item Classical Statistics

Item	Max Point s	Omit %	0%	1%	2%	3%	4%	p- value	Item- Total Corr.
1	4	3.00	48.21	9.91	9.40	14.07	15.41	0.33	0.77
2	3	1.20	36.32	12.72	27.93	21.79		0.45	0.73
3	3	1.30	47.71	19.66	22.20	9.16		0.31	0.69
4	4	2.80	67.55	8.05	12.31	5.32	3.96	0.16	0.71

Table 106. Mathematics Grade 7 Selected-Response Item Classical Statistics

Item	Omit %	p-value	Item– Total Corr.
1	0.40%	0.47	0.56
2	0.10%	0.23	0.49
3	0.00%	0.51	0.54
4	0.10%	0.49	0.31
5	0.00%	0.70	0.48
6	0.10%	0.19	0.52
7	0.10%	0.47	0.45
8	1.10%	0.14	0.55
9	0.10%	0.23	0.39
10	0.60%	0.33	0.39
11	2.30%	0.61	0.36
12	0.60%	0.32	0.24
13	0.80%	0.14	0.43
14	0.90%	0.17	0.66
15	0.40%	0.41	0.51
16	2.50%	0.28	0.81
17	3.80%	0.21	0.70
18	0.40%	0.25	0.48
19	0.20%	0.23	0.46
20	0.20%	0.31	0.69
21	0.10%	0.43	0.26
22	0.10%	0.51	0.42
23	0.10%	0.21	0.26
24	0.10%	0.22	0.64
25	0.60%	0.58	0.44
26	1.60%	0.14	0.60

Table 107. Mathematics Grade 7 Constructed-Response Item Classical Statistics

Item	Max Points	Omit %	0%	1%	2%	3%	4%	p-value	Item-Total Corr.
1	3	3.60	58.62	12.51	15.44	9.83		0.24	0.74
2	4	3.00	52.82	19.24	6.96	8.28	9.73	0.24	0.74
3	3	3.10	53.45	33.10	8.77	1.61		0.19	0.61

Table 108. Mathematics Grade 8 Selected-Response Item Classical Statistics

Item	Omit %	p-value	Item– Total Corr.
1	0.30%	0.34	0.67
2	0.10%	0.37	0.27
3	0.10%	0.42	0.54
4	0.10%	0.33	0.46
5	1.20%	0.14	0.62
6	0.10%	0.25	0.36
7	0.10%	0.85	0.33
8	0.10%	0.68	0.41
9	0.70%	0.26	0.46
10	2.50%	0.11	0.58
11	0.40%	0.31	0.50
12	0.20%	0.50	0.49
13	0.30%	0.32	0.70
14	4.50%	0.39	0.80
15	4.40%	0.21	0.75
16	0.40%	0.73	0.50
17	0.30%	0.30	0.53
18	0.10%	0.53	0.36
19	1.60%	0.23	0.55
20	0.20%	0.45	0.28
21	0.10%	0.57	0.38
22	0.40%	0.40	0.66
23	0.10%	0.30	0.38
24	1.30%	0.37	0.67
25	0.10%	0.43	0.52
26	4.40%	0.19	0.74

Table 109. Mathematics Grade 8 Constructed-Response Item Classical Statistics

Item	Max Points	Omit %	0%	1%	2%	3%	4%	p-value	Item-Total Corr.
1	4	4.90	75.34	9.88	4.45	4.11	1.34	0.09	0.67
2	3	3.40	76.98	10.49	6.56	2.62		0.11	0.61

Table 110. ELA Grade 3 Selected-Response Item Classical Statistics

Item	Omit %	p-value	Item– Total Corr.
1	0.60%	0.22	0.38
2	0.60%	0.37	0.42
3	0.50%	0.29	0.30
4	1.50%	0.55	0.53
5	2.30%	0.43	0.54
6	0.40%	0.82	0.51
7	0.10%	0.64	0.60
8	0.20%	0.66	0.54
9	0.20%	0.42	0.54
10	0.00%	0.69	0.54
11	0.10%	0.37	0.50
12	0.20%	0.49	0.53
13	0.20%	0.43	0.58
14	0.20%	0.38	0.58
15	1.70%	0.63	0.58
16	2.50%	0.47	0.61
17	2.30%	0.52	0.52
18	2.30%	0.31	0.57
19	3.30%	0.44	0.68

Table 111. ELA Grade 3 Constructed-Response Item Classical Statistics

Item	Max Point s	Omit %	0%	1%	2%	3%	4%	p- value	Item- Total Corr.
PCR 1 WE	3	1.80	43.46	47.48	6.87	0.44		0.21	0.67
PCR 1 WKL	3	1.80	50.36	36.72	10.57	0.60		0.20	0.62
PCR 2 WE	3	1.90	42.93	46.69	7.85	0.59		0.21	0.79
PCR 2 WKL	3	1.90	45.93	44.28	7.20	0.64		0.20	0.65

Table 112. ELA Grade 4 Selected-Response Item Classical Statistics

Item	Omit %	p-value	Item– Total Corr.
1	0.00%	0.66	0.44
2	0.50%	0.35	0.36
3	0.10%	0.51	0.50
4	0.00%	0.58	0.51
5	0.40%	0.47	0.46
6	0.20%	0.83	0.50
7	0.40%	0.31	0.34
8	0.40%	0.64	0.65
9	0.50%	0.55	0.60
10	0.20%	0.27	0.32
11	0.20%	0.48	0.59
12	0.40%	0.49	0.46
13	0.30%	0.77	0.52
14	0.40%	0.47	0.59
15	0.50%	0.31	0.40
16	0.40%	0.48	0.57
17	0.10%	0.62	0.55
18	0.10%	0.66	0.44
19	0.10%	0.75	0.44
20	0.20%	0.52	0.68
21	0.10%	0.69	0.66

Table 113. ELA Grade 4 Constructed-Response Item Classical Statistics

Item	Max Point s	Omit %	0%	1%	2%	3%	4%	p- value	Item- Total Corr.
PCR 1 WE	3	0.60	39.58	44.61	11.70	3.52		0.26	0.69
PCR 1 WKL	3	0.60	39.37	44.09	12.53	3.42		0.27	0.70
PCR 2 WE	4	0.90	48.68	40.40	8.63	1.31	0.08	0.16	0.73
PCR 2 WKL	3	0.90	45.78	39.58	10.84	2.90		0.23	0.69

Table 114. ELA Grade 5 Selected-Response Item Classical Statistics

Item	Omit %	p-value	Item– Total Corr.
1	0.20%	0.40	0.45
2	0.20%	0.30	0.53
3	0.20%	0.39	0.40
4	0.20%	0.30	0.39
5	0.00%	0.36	0.32
6	0.30%	0.56	0.30
7	0.10%	0.50	0.40
8	0.20%	0.31	0.49
9	0.30%	0.25	0.43
10	0.20%	0.22	0.35
11	0.10%	0.45	0.45
12	0.40%	0.37	0.45
13	0.60%	0.39	0.50
14	0.30%	0.70	0.58
15	0.40%	0.44	0.54
16	0.20%	0.39	0.51
17	0.20%	0.55	0.47
18	0.20%	0.62	0.28
19	0.40%	0.52	0.52
20	0.30%	0.49	0.53

Table 115. ELA Grade 5 Constructed-Response Item Classical Statistics

Item	Max Point s	Omit %	0%	1%	2%	3%	4%	p- value	Item- Total Corr.
PCR 1 WE	3	0.80	50.77	33.73	11.73	2.93		0.22	0.76
PCR 1 WKL	3	0.80	57.57	27.76	11.33	2.49		0.19	0.71
PCR 2 WE	4	1.50	44.20	45.98	7.35	0.79	0.13	0.16	0.70
PCR 2 WKL	3	1.50	43.48	48.76	5.36	0.85		0.21	0.66

Table 116. ELA Grade 6 Selected-Response Item Classical Statistics

Item	Omit %	p-value	Item– Total Corr.
1	0.80%	0.31	0.36
2	0.80%	0.48	0.45
3	0.90%	0.36	0.46
4	0.80%	0.77	0.47
5	0.80%	0.35	0.34
6	0.80%	0.72	0.55
7	0.10%	0.34	0.42
8	0.20%	0.61	0.37
9	0.10%	0.39	0.39
10	0.30%	0.54	0.40
11	0.30%	0.56	0.54
12	0.40%	0.43	0.41
13	0.30%	0.31	0.52
14	0.10%	0.68	0.48
15	0.80%	0.43	0.53
16	0.70%	0.51	0.59
17	0.70%	0.47	0.53
18	0.70%	0.51	0.61
19	1.30%	0.68	0.40
20	1.90%	0.54	0.30
21	1.50%	0.48	0.40
22	1.70%	0.445	0.30877 5

Table 117. ELA Grade 6 Constructed-Response Item Classical Statistics

Item	Max Point s	Omit %	0%	1%	2%	3%	4%	p- value	Item- Total Corr.
PCR 1 WE	4	1.70	57.23	30.53	9.11	1.34	0.10	0.13	0.75
PCR 1 WKL	3	1.70	54.32	29.70	12.06	2.23		0.20	0.71
PCR 2 WE	4	2.10	28.13	57.91	9.15	2.42	0.33	0.21	0.70
PCR 2 WKL	3	2.10	45.83	42.21	8.53	1.36		0.21	0.68

Table 118. ELA Grade 7 Selected-Response Item Classical Statistics

Item	Omit %	p-value	Item– Total Corr.
1	0.80%	0.60	0.49
2	0.80%	0.31	0.39
3	0.90%	0.32	0.52
4	0.90%	0.42	0.50
5	0.90%	0.44	0.50
6	0.90%	0.43	0.38
7	0.90%	0.54	0.62
8	0.80%	0.67	0.57
9	0.80%	0.34	0.41
10	0.80%	0.46	0.56
11	0.80%	0.44	0.38
12	0.70%	0.56	0.45
13	0.70%	0.64	0.36
14	1.00%	0.63	0.44
15	0.80%	0.48	0.35
16	0.90%	0.42	0.49
17	0.00%	0.83	0.38
18	0.00%	0.32	0.27
19	0.10%	0.26	0.25
20	0.10%	0.39	0.48
21	0.50%	0.47	0.36
22	0.10%	0.28	0.37

Table 119. ELA Grade 7 Constructed-Response Item Classical Statistics

Item	Max Points	Omit %	0%	1%	2%	3%	4%	p-value	Item-Total Corr.
PCR 1 WE	4	2.50	42.71	37.86	13.49	2.95	0.46	0.19	0.82
PCR 1 WKL	3	2.50	37.05	45.54	12.43	2.44		0.26	0.78
PCR 2 WE	4	1.60	27.14	40.27	22.90	6.88	1.21	0.28	0.79
PCR 2 WKL	3	1.60	32.79	33.29	24.16	8.15		0.35	0.78

Table 120. ELA Grade 8 Selected-Response Item Classical Statistics

Item	Omit %	p-value	Item– Total Corr.
1	0.50%	0.59	0.64
2	0.50%	0.53	0.55
3	0.50%	0.48	0.45
4	0.50%	0.44	0.46
5	0.50%	0.39	0.49
6	0.00%	0.29	0.37
7	2.70%	0.44	0.50
8	0.00%	0.65	0.48
9	0.00%	0.50	0.58
10	0.00%	0.33	0.42
11	0.00%	0.56	0.50
12	0.10%	0.27	0.30
13	0.60%	0.46	0.49
14	0.10%	0.66	0.40
15	0.00%	0.47	0.39
16	0.00%	0.35	0.37
17	0.10%	0.38	0.52
18	0.60%	0.59	0.54
19	0.60%	0.27	0.31
20	0.50%	0.55	0.56
21	0.60%	0.58	0.38
22	0.50%	0.71	0.55
23	0.60%	0.32	0.39

Table 121. ELA Grade 8 Constructed-Response Item Classical Statistics

Item	Max Points	Omit %	0%	1%	2%	3%	4%	p-value	Item-Total Corr.
PCR 1 WE	4	2.00	28.07	30.36	30.11	8.54	0.90	0.30	0.84
PCR 1 WKL	3	2.00	28.80	29.60	31.79	7.78		0.39	0.82
PCR 2 WE	4	1.40	30.80	31.38	26.90	7.93	1.56	0.29	0.85
PCR 2 WKL	3	1.40	34.47	27.24	26.49	10.36		0.37	0.82

Table 122. CSLA Grade 3 Selected-Response Item Classical Statistics

Item	Omit %	P-Value	Item– Total Corr.
1	3.50%	0.48	0.50
2	2.90%	0.33	0.38
3	3.30%	0.47	0.53
4	3.00%	0.25	0.36
5	3.00%	0.44	0.54
6	3.20%	0.25	0.43
7	3.60%	0.14	0.37
8	3.70%	0.21	0.40
9	3.30%	0.28	0.44
10	3.30%	0.19	0.25
11	5.10%	0.38	0.55
12	5.00%	0.35	0.56
13	5.50%	0.40	0.59
14	5.00%	0.39	0.54
15	2.00%	0.31	0.43
16	1.70%	0.33	0.51
17	1.70%	0.30	0.54
18	1.60%	0.43	0.42

Table 123. CSLA Grade 3 Constructed-Response Item Classical Statistics

Item	Max Points	Omit %	0%	1%	2%	3%	P-Value	Item-Total Corr.
PCR 1 WE	3	6.20	40.38	31.90	19.24	2.27	0.26	0.67
PCR 1 WKL	3	6.20	37.75	37.40	11.71	6.93	0.27	0.60
PCR 2 WE	3	5.40	51.02	17.44	16.01	10.16	0.27	0.69
PCR 2 WKL	3	5.40	42.65	30.47	10.75	10.75	0.28	0.62

Table 124. CSLA Grade 4 Selected-Response Item Classical Statistics

Item	Omit %	P-Value	Item– Total Corr.
1	3.80%	0.29	0.31
2	3.80%	0.24	0.25
3	3.80%	0.39	0.48
4	3.80%	0.26	0.50
5	3.80%	0.75	0.62
6	3.80%	0.77	0.61
7	3.80%	0.64	0.64
8	3.80%	0.57	0.51
9	1.90%	0.41	0.56
10	1.90%	0.51	0.60
11	1.90%	0.48	0.52
12	1.90%	0.44	0.49
13	1.90%	0.39	0.50
14	1.90%	0.20	0.26
15	1.90%	0.15	-0.14
16	1.90%	0.28	0.31
17	1.90%	0.15	0.38
18	1.90%	0.52	0.50
19	1.90%	0.31	0.52
20	1.90%	0.55	0.62
21	1.90%	0.38	0.45

Table 125. CSLA Grade 4 Constructed-Response Item Classical Statistics

Item	Max Points	Omit %	0%	1%	2%	3%	4%	P-Value	Item-Total Corr.
PCR 1 WE	3	3.80	30.19	24.53	30.19	11.32		0.40	0.75
PCR 1 WKL	3	3.80	22.64	37.74	26.42	9.43		0.40	0.63
PCR 2 WE	4	1.90	28.30	24.53	33.96	11.32	0.00	0.32	0.85
PCR 2 WKL	3	1.90	24.53	43.40	11.32	18.87		0.41	0.66

Table 126. Grade 8 Science Selected-Response Classical Statistics

Item	% Omit	p-value	Item- Total Corr.
1	0.03	0.72	0.43
2	0.11	0.60	0.36
3	0.02	0.52	0.50
4	0.02	0.43	0.40
5	0.19	0.54	0.30
6	0.17	0.27	0.31
7	0.12	0.17	0.41
8	0.14	0.67	0.48
9	0.12	0.42	0.35
10	0.19	0.51	0.37
11	0.48	0.36	0.43
12	0.74	0.57	0.34
13	0.76	0.35	0.41
14	0.01	0.41	0.41
15	0.16	0.17	0.32
16	0.04	0.48	0.33
17	0.10	0.30	0.38
18	0.11	0.39	0.42
19	0.06	0.27	0.26
20	0.08	0.18	0.31
21	0.09	0.55	0.45
22	0.15	0.33	0.52
23	0.24	0.51	0.41
24	0.22	0.22	0.34
25	0.18	0.86	0.30

Item	% Omit	p-value	Item- Total Corr.
26	0.29	0.50	0.44
27	0.31	0.39	0.44
28	0.35	0.43	0.31
29	0.02	0.54	0.34
30	0.06	0.62	0.46
31	0.02	0.26	0.33
32	0.10	0.33	0.34
33	0.05	0.52	0.35
34	0.08	0.27	0.44
35	0.04	0.42	0.35
36	0.06	0.32	0.35
37	0.10	0.60	0.50
38	0.22	0.61	0.50
39	0.18	0.17	0.41
40	0.16	0.62	0.30
41	0.17	0.47	0.29
42	0.20	0.29	0.40

Table 127. Grade 8 Science Constructed-Response Classical Statistics

Item	Max Points	Omit %	%0	%1	%2	%3	p-value	Item-Total Corr.
1	2	2.17	54.78	38.88	4.16		0.24	0.50
2	2	1.57	32.12	16.46	49.85		0.58	0.60
3	3	2.35	52.68	37.64	5.96	1.37	0.18	0.57
4	2	3.89	42.57	20.26	33.28		0.43	0.65
5	2	1.28	47.56	21.06	30.10		0.41	0.61
6	2	1.33	28.90	7.49	62.27		0.66	0.62
7	2	1.30	76.40	14.82	7.48		0.15	0.44
8	3	2.75	60.55	12.21	14.00	10.50	0.24	0.67
9	2	2.41	62.63	25.78	9.18		0.22	0.64
10	2	2.19	42.39	19.15	36.27		0.46	0.70
11	2	2.72	43.99	30.80	22.50		0.38	0.66
12	2	1.25	68.68	20.10	9.96		0.20	0.56
13	2	1.94	69.15	19.64	9.27		0.19	0.54
14	3	2.58	46.38	10.74	11.83	28.47	0.40	0.76
15	2	1.96	54.90	30.85	12.29		0.28	0.65
16	2	2.52	46.07	22.95	28.45		0.40	0.69
17	2	1.73	35.38	46.26	16.64		0.40	0.56

Table 128. Mathematics Correlations Between Subclaims

Grade	Subclaim	B	C	D	Full Test
3	A	0.826	0.704	0.725	0.954
	B		0.657	0.691	0.895
	C			0.649	0.831
	D				0.838
4	A	0.763	0.770	0.787	0.964
	B		0.675	0.688	0.839
	C			0.729	0.878
	D				0.875
5	A	0.773	0.778	0.764	0.962
	B		0.674	0.697	0.857
	C			0.722	0.871
	D				0.868
6	A	0.691	0.751	0.736	0.930
	B		0.669	0.644	0.824
	C			0.747	0.899
	D				0.867
7	A	0.664	0.763	0.716	0.943
	B		0.618	0.585	0.785
	C			0.690	0.886
	D				0.840
8	A	0.728	0.766	0.724	0.952
	B		0.671	0.643	0.835
	C			0.670	0.865
	D				0.849

Table 129. Correlations between Reading and Writing Claim Scores

Content Area	Grade	Correlation
ELA	3	0.712
	4	0.627
	5	0.672
	6	0.701
	7	0.681
	8	0.722
CSLA	3	0.621
	4	0.721

Table 130. ELA Correlations Between Subclaims

Grade	Subclaim	RI	RV	WE	WKL	Full Test
3	RL	0.722	0.652	0.685	0.563	0.894
	RI		0.689	0.602	0.514	0.880
	RV			0.556	0.479	0.811
	WE				0.675	0.839
	WKL					0.704
4	RL	0.729	0.662	0.633	0.586	0.897
	RI		0.647	0.514	0.511	0.861
	RV			0.455	0.443	0.768
	WE				0.802	0.812
	WKL					0.758
5	RL	0.645	0.552	0.554	0.534	0.851
	RI		0.521	0.649	0.590	0.857
	RV			0.435	0.417	0.685
	WE				0.786	0.849
	WKL					0.776
6	RL	0.641	0.527	0.588	0.557	0.852
	RI		0.555	0.663	0.589	0.872
	RV			0.451	0.431	0.690
	WE				0.787	0.851
	WKL					0.775
7	RL	0.674	0.597	0.685	0.662	0.885
	RI		0.523	0.557	0.554	0.821
	RV			0.450	0.453	0.697
	WE				0.893	0.875
	WKL					0.843
8	RL	0.705	0.639	0.600	0.593	0.832
	RI		0.657	0.722	0.694	0.898
	RV			0.545	0.531	0.762
	WE				0.929	0.898
	WKL					0.870

Table 131. CSLA Correlations Between Subclaims

Grade	Subclaim	RI	RV	WE	WKL	Full Test
3	RL	0.578	0.670	0.623	0.484	0.881
	RI		0.572	0.425	0.387	0.716
	RV			0.457	0.392	0.770
	WE				0.631	0.842
	WKL					0.689
4	RL	0.528	0.567	0.731	0.528	0.878
	RI		0.567	0.525	0.441	0.755
	RV			0.515	0.339	0.710
	WE				0.730	0.901
	WKL					0.719

Table 132. Science Correlations Between Content Standards

Content Area	Grade	Content Standard	2	3	4	Full Test
Science	8	1	0.792	0.812	0.859	0.931
		2		0.812	0.853	0.921
		3			0.873	0.931
		4				0.924

Table 133. Correlations Between Mathematics and ELA Scale Scores

Grade	N	Correlation
3	5,887	0.79
4	5,699	0.77
5	5,909	0.75
6	5,358	0.74
7	5,450	0.75
8	4,407	0.76

Note: Samples include only students with valid scores on both assessments.

Table 134. Correlations Between Grade 8 Mathematics, Science, and ELA Scale Scores

Subjects	N	Correlation
Math with Science	36,394	0.83
ELA with Science	4,214	0.81

Note: Samples include only students with valid scores on both assessments.