



**California Department of Education
Assessment Development &
Administration Division**



California Assessment of
Student Performance and Progress

**California Assessment of Student
Performance and Progress
California Science Test 2018–2019
Technical Report**

Chapter 12 Appendix

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Appendix 12.A: Factor Loading Matrix

Note: The hyphens in the tables in appendix 12.A denote that data was not available because the item did not belong to that domain.

Table 12.A.1 Factor Loading Matrix by Content Domain—Grade Five, Form One

Item	General	Earth and Space Sciences	Life Sciences	Physical Sciences
Item 1	0.59	0.24	-	-
Item 2	0.19	0.15	-	-
Item 3	0.37	0.10	-	-
Item 4	0.55	0.06	-	-
Item 5	0.48	0.04	-	-
Item 6	0.48	0.03	-	-
Item 7	0.45	-0.15	-	-
Item 8	0.74	-0.05	-	-
Item 9	0.51	-0.04	-	-
Item 10	0.41	-0.00	-	-
Item 11	0.64	-0.00	-	-
Item 12	0.81	-	0.26	-
Item 13	0.55	-	0.24	-
Item 14	0.68	-	0.16	-
Item 15	0.34	-	0.07	-
Item 16	0.59	-	0.07	-
Item 17	0.69	-	0.03	-
Item 18	0.47	-	0.03	-
Item 19	0.73	-	0.02	-
Item 20	0.75	-	0.01	-
Item 21	0.69	-	0.00	-
Item 22	0.18	-	-0.29	-
Item 23	0.54	-	-0.17	-
Item 24	0.47	-	-0.14	-
Item 25	0.51	-	-0.12	-
Item 26	0.32	-	-0.11	-
Item 27	0.55	-	-0.09	-
Item 28	0.41	-	-	0.31
Item 29	0.33	-	-	0.29

Table 12.A.1 (continuation)

Item	General	Earth and Space Sciences	Life Sciences	Physical Sciences
Item 30	0.61	-	-	0.25
Item 31	0.44	-	-	0.22
Item 32	0.44	-	-	0.17
Item 33	0.63	-	-	0.16
Item 34	0.36	-	-	0.09
Item 35	0.41	-	-	0.04
Item 36	0.02	-	-	0.03
Item 37	0.45	-	-	0.01
Item 38	0.55	-	-	-0.14
Item 39	0.38	-	-	-0.08
Item 40	0.41	-	-	-0.08
Item 41	0.55	-	-	-0.08
Item 42	0.64	-	-	-0.07
Item 43	0.55	-	-	-0.06
Item 44	0.61	-	-	-0.03
Item 45	0.43	-	-	-0.01
Item 46	0.71	-	-	-0.01
Item 47	0.19	-	-	-0.01

**Table 12.A.2 Factor Loading Matrix by Science and Engineering Practices (SEP)—
Grade Five, Form One**

Item	General	SEP 2	SEP 3	SEP 6	SEP 7
Item 1	0.16	0.30	-	-	-
Item 2	0.69	0.28	-	-	-
Item 3	0.53	0.21	-	-	-
Item 4	0.46	0.16	-	-	-
Item 5	0.50	0.15	-	-	-
Item 6	0.73	0.12	-	-	-
Item 7	0.18	0.12	-	-	-
Item 8	0.45	0.05	-	-	-
Item 9	0.48	0.05	-	-	-
Item 10	0.02	0.04	-	-	-
Item 11	0.75	0.01	-	-	-
Item 12	0.55	-0.12	-	-	-
Item 13	0.43	-0.06	-	-	-
Item 14	0.38	-0.04	-	-	-
Item 15	0.42	-	0.07	-	-
Item 16	0.63	-	0.04	-	-
Item 17	0.19	-	0.01	-	-
Item 18	0.45	-	0.01	-	-
Item 19	0.55	-	-0.77	-	-
Item 20	0.41	-	-0.02	-	-
Item 21	0.51	-	-	0.25	-
Item 22	0.55	-	-	0.23	-
Item 23	0.54	-	-	0.15	-
Item 24	0.55	-	-	0.13	-
Item 25	0.69	-	-	0.08	-
Item 26	0.37	-	-	-0.09	-
Item 27	0.55	-	-	-0.05	-
Item 28	0.68	-	-	-	0.31
Item 29	0.59	-	-	-	0.23
Item 30	0.82	-	-	-	0.16
Item 31	0.61	-	-	-	0.14
Item 32	0.47	-	-	-	0.08
Item 33	0.34	-	-	-	0.05
Item 34	0.48	-	-	-	-0.05
Item 35	0.32	-	-	-	-0.05
Item 36	0.41	-	-	-	-
Item 37	0.45	-	-	-	-
Item 38	0.74	-	-	-	-

Table 12.A.2 (continuation)

Item	General	SEP 2	SEP 3	SEP 6	SEP 7
Item 39	0.63	-	-	-	-
Item 40	0.36	-	-	-	-
Item 41	0.59	-	-	-	-
Item 42	0.69	-	-	-	-
Item 43	0.55	-	-	-	-
Item 44	0.64	-	-	-	-
Item 45	0.61	-	-	-	-
Item 46	0.34	-	-	-	-
Item 47	0.42	-	-	-	-

Table 12.A.3 Factor Loading Matrix by Crosscutting Concept (CCC)—Grade Five, Form One

Item	General	CCC 1	CCC 2	CCC 3	CCC 4	CCC 5
Item 1	0.55	0.29	-	-	-	-
Item 2	0.56	0.21	-	-	-	-
Item 3	0.37	0.07	-	-	-	-
Item 4	0.41	0.00	-	-	-	-
Item 5	0.64	-0.02	-	-	-	-
Item 6	0.46	-0.02	-	-	-	-
Item 7	0.43	-0.00	-	-	-	-
Item 8	0.81	-	0.33	-	-	-
Item 9	0.45	-	0.19	-	-	-
Item 10	0.55	-	0.17	-	-	-
Item 11	0.69	-	0.16	-	-	-
Item 12	0.63	-	0.10	-	-	-
Item 13	0.61	-	0.07	-	-	-
Item 14	0.48	-	0.03	-	-	-
Item 15	0.60	-	-0.17	-	-	-
Item 16	0.20	-	-0.12	-	-	-
Item 17	0.45	-	-0.09	-	-	-
Item 18	0.63	-	-0.06	-	-	-
Item 19	0.46	-	-0.05	-	-	-
Item 20	0.70	-	-0.02	-	-	-
Item 21	0.41	-	-	0.39	-	-
Item 22	0.62	-	-	0.33	-	-
Item 23	0.33	-	-	0.25	-	-
Item 24	0.36	-	-	0.09	-	-
Item 25	0.02	-	-	0.02	-	-
Item 26	0.38	-	-	-0.04	-	-
Item 27	0.69	-	-	-0.00	-	-
Item 28	0.19	-	-	-0.00	-	-
Item 29	0.73	-	-	-	0.33	-
Item 30	0.51	-	-	-	0.07	-
Item 31	0.17	-	-	-	0.07	-
Item 32	0.48	-	-	-	0.06	-
Item 33	0.74	-	-	-	0.05	-
Item 34	0.35	-	-	-	0.04	-
Item 35	0.60	-	-	-	0.03	-
Item 36	0.75	-	-	-	-0.03	-
Item 37	0.54	-	-	-	-0.01	-
Item 38	0.70	-	-	-	-	0.46

Table 12.A.3 (continuation)

Item	General	CCC 1	CCC 2	CCC 3	CCC 4	CCC 5
Item 39	0.47	-	-	-	-	0.12
Item 40	0.32	-	-	-	-	0.06
Item 41	0.45	-	-	-	-	-0.05
Item 42	0.55	-	-	-	-	-0.04
Item 43	0.55	-	-	-	-	-0.01
Item 44	0.42	-	-	-	-	-
Item 45	0.41	-	-	-	-	-
Item 46	0.51	-	-	-	-	-
Item 47	0.55	-	-	-	-	-

Table 12.A.4 Factor Loading Matrix by Item Type—Grade Five, Form One

Item	General	CR	MC	TEI
Item 1	0.54	0.32	-	-
Item 2	0.46	0.31	-	-
Item 3	0.75	0.23	-	-
Item 4	0.38	0.14	-	-
Item 5	0.55	-0.04	-	-
Item 6	0.71	-0.01	-	-
Item 7	0.17	-	0.28	-
Item 8	0.19	-	0.20	-
Item 9	0.42	-	0.17	-
Item 10	0.45	-	0.17	-
Item 11	0.45	-	0.15	-
Item 12	0.59	-	0.13	-
Item 13	0.63	-	0.10	-
Item 14	0.46	-	0.08	-
Item 15	0.19	-	0.07	-
Item 16	0.32	-	0.07	-
Item 17	0.34	-	0.06	-
Item 18	0.69	-	0.01	-
Item 19	0.81	-	-0.20	-
Item 20	0.55	-	-0.17	-
Item 21	0.69	-	-0.16	-
Item 22	0.61	-	-0.13	-
Item 23	0.51	-	-0.13	-
Item 24	0.59	-	-0.11	-
Item 25	0.41	-	-0.10	-
Item 26	0.69	-	-0.02	-
Item 27	0.47	-	-0.02	-
Item 28	0.41	-	-	0.42
Item 29	0.61	-	-	0.29
Item 30	0.53	-	-	0.18
Item 31	0.50	-	-	0.10
Item 32	0.37	-	-	0.09
Item 33	0.36	-	-	0.09
Item 34	0.55	-	-	0.09
Item 35	0.45	-	-	0.05
Item 36	0.48	-	-	0.01
Item 37	0.41	-	-	0.01
Item 38	0.03	-	-	0.01

Table 12.A.4 (*continuation*)

Item	General	CR	MC	TEI
Item 39	0.55	-	-	-0.13
Item 40	0.55	-	-	-0.08
Item 41	0.64	-	-	-0.07
Item 42	0.43	-	-	-0.06
Item 43	0.74	-	-	-0.05
Item 44	0.35	-	-	-0.05
Item 45	0.73	-	-	-0.03
Item 46	0.48	-	-	-0.03
Item 47	0.64	-	-	-0.01

Table 12.A.5 Factor Loading Matrix by Task Type—Grade Five, Form One

Item	General	non-PT	PT
Item 1	0.52	0.34	-
Item 2	0.78	0.32	-
Item 3	0.43	0.21	-
Item 4	0.54	0.19	-
Item 5	0.50	0.18	-
Item 6	0.62	0.17	-
Item 7	0.53	0.17	-
Item 8	0.67	0.16	-
Item 9	0.60	0.15	-
Item 10	0.37	0.14	-
Item 11	0.73	0.14	-
Item 12	0.40	0.14	-
Item 13	0.68	0.12	-
Item 14	0.33	0.10	-
Item 15	0.59	0.10	-
Item 16	0.63	0.10	-
Item 17	0.72	0.07	-
Item 18	0.48	0.07	-
Item 19	0.41	0.06	-
Item 20	0.43	0.05	-
Item 21	0.48	0.04	-
Item 22	0.45	0.04	-
Item 23	0.58	-0.21	-
Item 24	0.47	-0.18	-
Item 25	0.47	-0.16	-
Item 26	0.43	-0.10	-
Item 27	0.38	-0.10	-
Item 28	0.65	-0.10	-
Item 29	0.20	-0.09	-
Item 30	0.56	-0.07	-
Item 31	0.60	-0.06	-
Item 32	0.70	-0.04	-
Item 33	0.36	-0.03	-
Item 34	0.46	-0.03	-
Item 35	0.41	-	0.40
Item 36	0.61	-	0.29
Item 37	0.33	-	0.21
Item 38	0.53	-	0.20

Table 1.A.5 (continuation)

Item	General	non-PT	PT
Item 39	0.17	-	0.16
Item 40	0.50	-	0.12
Item 41	0.31	-	0.12
Item 42	0.18	-	0.07
Item 43	0.02	-	0.04
Item 44	0.70	-	0.03
Item 45	0.47	-	0.01
Item 46	0.55	-	-0.10
Item 47	0.75	-	-0.02