

APPENDIX M

RAW TO SCALED SCORE LOOK-UP TABLES

Table M-1. 2018 Legacy MCAS: Raw to Scaled Score Look-Up Table –ELA Grade 10

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
0	-6	0.38	10.0	200	200	1	1
1	-6	0.48	10.0	200	200	1	1
2	-5.975	0.62	9.7	202	202	1	1
3	-5.809	0.78	8.6	202	202	1	1
4	-5.643	0.99	7.7	204	204	1	1
5	-5.476	1.23	6.9	204	204	1	1
6	-5.310	1.50	6.2	206	206	1	1
7	-5.144	1.80	5.7	206	206	1	1
8	-4.978	2.13	5.2	208	206	1	1
9	-4.812	2.47	4.9	208	208	1	1
10	-4.646	2.83	4.5	210	208	1	1
11	-4.480	3.22	4.3	210	210	1	1
12	-4.314	3.62	4.0	210	210	1	1
13	-4.148	4.05	3.8	212	212	1	1
14	-3.975	4.51	3.6	212	212	1	1
15	-3.767	5.08	3.4	214	212	1	1
16	-3.582	5.62	3.2	214	214	1	1
17	-3.414	6.14	3.1	216	214	1	1
18	-3.261	6.66	3.0	216	216	1	1
19	-3.120	7.20	2.9	218	216	1	1
20	-2.989	7.77	3.2	218	218	1	1
21	-2.866	8.36	3.6	220	218	2	1
22	-2.751	8.99	3.9	220	220	2	2
23	-2.643	9.62	4.2	222	220	2	2
24	-2.540	10.26	4.6	224	222	2	2
25	-2.443	10.88	4.8	224	224	2	2
26	-2.350	11.48	4.7	226	224	2	2
27	-2.260	12.05	4.6	228	226	2	2
28	-2.174	12.57	4.5	230	228	2	2
29	-2.090	13.04	4.4	230	230	2	2
30	-2.008	13.46	4.3	232	230	2	2
31	-1.928	13.82	4.3	234	232	2	2
32	-1.850	14.13	4.2	234	234	2	2
33	-1.772	14.38	4.2	236	234	2	2
34	-1.696	14.57	4.1	236	236	2	2
35	-1.619	14.70	3.9	238	238	2	2
36	-1.543	14.79	3.7	240	238	3	2
37	-1.467	14.82	3.6	240	240	3	3
38	-1.391	14.81	3.4	242	240	3	3
39	-1.314	14.76	3.3	242	242	3	3
40	-1.237	14.68	3.2	244	242	3	3
41	-1.159	14.57	3.2	244	244	3	3
42	-1.080	14.43	3.2	246	244	3	3
43	-1.000	14.28	3.2	246	246	3	3
44	-0.920	14.12	3.2	246	246	3	3

continued

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
45	-0.838	13.95	3.2	248	248	3	3
46	-0.754	13.78	3.3	248	248	3	3
47	-0.670	13.61	3.3	250	250	3	3
48	-0.583	13.42	3.3	252	250	3	3
49	-0.496	13.22	3.3	252	252	3	3
50	-0.406	13.00	3.4	254	252	3	3
51	-0.314	12.75	3.4	254	254	3	3
52	-0.220	12.45	3.4	256	254	3	3
53	-0.123	12.10	3.5	256	256	3	3
54	-0.022	11.69	3.2	258	256	3	3
55	0.084	11.21	3.0	260	258	4	3
56	0.194	10.67	2.8	260	258	4	3
57	0.311	10.08	2.6	262	260	4	4
58	0.436	9.46	2.4	262	260	4	4
59	0.570	8.84	2.4	262	262	4	4
60	0.715	8.24	2.4	264	262	4	4
61	0.872	7.72	2.5	266	264	4	4
62	1.041	7.28	2.6	266	264	4	4
63	1.224	6.89	2.7	268	266	4	4
64	1.422	6.48	2.8	268	268	4	4
65	1.638	5.94	2.9	270	270	4	4
66	1.880	5.20	3.1	272	272	4	4
67	2.165	4.24	3.4	274	274	4	4
68	2.524	3.12	4.0	276	276	4	4
69	3.036	1.93	5.1	280	280	4	4
70	3.806	1.29	6.2	280	280	4	4
71	4.000	1.28	6.2	280	280	4	4
72	4.000	1.28	6.2	280	280	4	4

Note. Theta below -6 is truncated to -6.

Table M-2. 2018 Legacy MCAS: Raw to Scaled Score Look-Up Table –Mathematics Grade 10

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
0	-6	0.00	10.0	200	200	1	1
1	-6	0.01	10.0	202	202	1	1
2	-6	0.01	10.0	202	202	1	1
3	-6	0.02	10.0	204	204	1	1
4	-5.614	0.05	10.0	204	204	1	1
5	-4.946	0.12	10.0	206	206	1	1
6	-4.277	0.36	10.0	206	206	1	1
7	-3.438	1.67	5.8	208	208	1	1
8	-2.968	3.77	3.9	210	208	1	1
9	-2.682	5.80	3.1	212	210	1	1
10	-2.469	7.63	2.7	214	210	1	1
11	-2.296	9.26	2.5	214	212	1	1
12	-2.149	10.71	2.3	216	214	1	1
13	-2.018	12.02	2.2	216	216	1	1
14	-1.900	13.19	2.1	218	216	1	1
15	-1.792	14.24	2.3	218	218	1	1
16	-1.692	15.17	3.0	218	218	1	1
17	-1.597	16.00	3.8	220	218	2	1
18	-1.509	16.73	4.5	222	220	2	2
19	-1.424	17.38	5.2	224	220	2	2
20	-1.343	17.96	5.9	226	222	2	2
21	-1.265	18.49	6.0	228	224	2	2
22	-1.190	18.98	5.9	230	226	2	2
23	-1.118	19.45	5.8	232	228	2	2
24	-1.047	19.91	5.8	234	230	2	2
25	-0.979	20.39	5.7	234	232	2	2
26	-0.912	20.88	5.6	236	234	2	2
27	-0.847	21.40	5.5	238	236	2	2
28	-0.784	21.94	5.5	240	238	3	2
29	-0.722	22.50	5.4	242	240	3	3
30	-0.661	23.09	5.3	242	242	3	3
31	-0.601	23.70	5.2	244	244	3	3
32	-0.543	24.31	5.2	246	244	3	3
33	-0.485	24.92	5.1	248	246	3	3
34	-0.428	25.50	5.0	248	248	3	3
35	-0.372	26.04	5.0	250	250	3	3
36	-0.316	26.52	4.9	252	252	3	3
37	-0.261	26.93	4.9	254	254	3	3
38	-0.205	27.23	4.9	254	254	3	3
39	-0.149	27.41	4.5	256	256	3	3
40	-0.093	27.46	4.0	258	258	3	3
41	-0.037	27.36	3.5	258	260	3	4
42	0.021	27.10	3.0	260	260	4	4
43	0.080	26.69	2.4	260	260	4	4
44	0.140	26.11	1.9	260	262	4	4
45	0.202	25.37	1.4	262	262	4	4

continued

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
46	0.266	24.48	1.4	262	262	4	4
47	0.333	23.46	1.4	262	264	4	4
48	0.403	22.32	1.4	262	264	4	4
49	0.478	21.09	1.5	264	264	4	4
50	0.557	19.76	1.5	264	264	4	4
51	0.642	18.37	1.6	264	266	4	4
52	0.734	16.91	1.6	264	266	4	4
53	0.836	15.38	1.7	266	266	4	4
54	0.949	13.77	1.8	266	268	4	4
55	1.079	12.05	1.9	268	268	4	4
56	1.231	10.22	2.1	268	270	4	4
57	1.420	8.23	2.3	270	272	4	4
58	1.674	5.92	2.7	272	274	4	4
59	2.100	2.92	3.9	274	278	4	4
60	4.000	0.10	10.0	280	280	4	4

Note. Theta below -6 is truncated to -6.

Table M-3. 2018 Legacy MCAS: Raw to Scaled Score Look-Up Table –Biology Grade HS

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
0	-6	0.00	10.0	200	200	1	1
1	-6	0.00	10.0	200	200	1	1
2	-6	0.00	10.0	202	202	1	1
3	-6	0.00	10.0	202	202	1	1
4	-6	0.00	10.0	204	204	1	1
5	-6	0.00	10.0	204	204	1	1
6	-6	0.00	10.0	206	206	1	1
7	-6	0.00	10.0	206	206	1	1
8	-6	0.00	10.0	208	208	1	1
9	-6	0.00	10.0	208	208	1	1
10	-5.374	0.08	10.0	210	210	1	1
11	-4.267	0.23	9.2	210	210	1	1
12	-3.105	0.94	4.5	210	212	1	1
13	-2.547	2.00	3.1	214	214	1	1
14	-2.204	3.12	2.5	214	216	1	1
15	-1.953	4.19	2.1	216	216	1	1
16	-1.751	5.17	1.9	216	218	1	1
17	-1.581	6.06	1.8	218	218	1	1
18	-1.432	6.89	1.7	218	218	1	1
19	-1.298	7.70	1.8	218	218	1	1
20	-1.177	8.53	2.8	220	220	2	2
21	-1.064	9.41	3.6	220	220	2	2
22	-0.959	10.35	4.4	220	222	2	2
23	-0.860	11.34	5.2	222	224	2	2
24	-0.767	12.36	6.0	224	226	2	2
25	-0.678	13.38	6.6	226	226	2	2
26	-0.593	14.35	6.3	228	228	2	2
27	-0.511	15.26	6.1	230	230	2	2
28	-0.431	16.07	6.0	232	232	2	2
29	-0.353	16.76	5.8	234	234	2	2
30	-0.276	17.33	5.4	236	236	2	2
31	-0.200	17.78	5.1	238	238	2	2
32	-0.125	18.12	4.8	240	238	3	2
33	-0.050	18.35	4.5	242	240	3	3
34	0.024	18.47	4.2	242	242	3	3
35	0.099	18.48	4.0	244	242	3	3
36	0.175	18.37	4.0	246	244	3	3
37	0.251	18.14	4.0	246	246	3	3
38	0.329	17.79	4.0	248	246	3	3
39	0.408	17.34	4.1	250	248	3	3
40	0.489	16.81	4.2	250	248	3	3
41	0.571	16.26	4.2	252	250	3	3
42	0.656	15.73	4.3	254	252	3	3
43	0.743	15.25	4.4	254	252	3	3
44	0.833	14.84	4.3	256	254	3	3
45	0.925	14.49	4.0	258	256	3	3

continued

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
46	1.020	14.15	3.7	260	258	4	3
47	1.119	13.78	3.4	260	260	4	4
48	1.223	13.29	3.1	262	260	4	4
49	1.333	12.65	2.9	262	262	4	4
50	1.450	11.83	3.0	264	262	4	4
51	1.577	10.83	3.1	266	264	4	4
52	1.717	9.67	3.3	266	266	4	4
53	1.876	8.39	3.5	268	268	4	4
54	2.059	7.03	3.9	270	270	4	4
55	2.277	5.64	4.3	272	272	4	4
56	2.550	4.28	4.9	276	274	4	4
57	2.907	3.08	5.8	280	276	4	4
58	3.402	2.16	7.0	280	280	4	4
59	4.000	1.50	8.3	280	280	4	4
60	4.000	1.50	8.3	280	280	4	4

Note. Theta below -6 is truncated to -6.

Table M-4. 2018 Legacy MCAS: Raw to Scaled Score Look-Up Table –Chemistry Grade HS

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
0	-6	0.00	10.0	200	200	1	1
1	-6	0.00	10.0	200	200	1	1
2	-6	0.00	10.0	202	202	1	1
3	-6	0.00	10.0	202	202	1	1
4	-6	0.00	10.0	204	202	1	1
5	-6	0.00	10.0	204	204	1	1
6	-6	0.00	10.0	204	204	1	1
7	-6	0.00	10.0	206	206	1	1
8	-6	0.00	10.0	206	206	1	1
9	-6	0.00	10.0	206	206	1	1
10	-5.452	0.00	10.0	208	210	1	1
11	-2.152	0.82	4.6	212	212	1	1
12	-1.651	2.29	2.8	214	214	1	1
13	-1.375	3.96	2.1	214	214	1	1
14	-1.180	5.75	1.7	216	214	1	1
15	-1.028	7.63	1.5	216	216	1	1
16	-0.902	9.57	1.4	216	216	1	1
17	-0.794	11.54	1.2	218	216	1	1
18	-0.698	13.47	1.1	218	216	1	1
19	-0.611	15.33	1.1	218	218	1	1
20	-0.531	17.08	1.0	218	218	1	1
21	-0.456	18.69	1.0	218	218	1	1
22	-0.385	20.16	0.9	218	218	1	1
23	-0.318	21.48	1.4	220	218	2	1
24	-0.254	22.65	2.3	220	220	2	2
25	-0.192	23.69	3.2	220	220	2	2
26	-0.132	24.60	4.1	220	220	2	2
27	-0.073	25.40	4.9	222	220	2	2
28	-0.015	26.09	5.8	224	222	2	2
29	0.042	26.68	6.6	226	224	2	2
30	0.098	27.18	6.9	228	228	2	2
31	0.154	27.57	6.8	230	230	2	2
32	0.209	27.87	6.8	232	232	2	2
33	0.265	28.07	6.6	234	234	2	2
34	0.320	28.18	6.4	236	236	2	2
35	0.375	28.18	6.2	238	238	2	2
36	0.431	28.09	6.0	240	240	3	3
37	0.488	27.91	5.7	242	242	3	3
38	0.545	27.65	5.5	244	244	3	3
39	0.603	27.30	5.3	244	246	3	3
40	0.662	26.88	5.3	246	246	3	3
41	0.722	26.37	5.4	248	248	3	3
42	0.784	25.80	5.4	250	250	3	3
43	0.847	25.14	5.5	252	252	3	3
44	0.912	24.41	5.6	254	254	3	3
45	0.980	23.59	5.4	256	256	3	3

continued

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
46	1.050	22.70	4.9	258	258	3	3
47	1.123	21.72	4.3	260	260	4	4
48	1.200	20.65	3.8	260	262	4	4
49	1.281	19.49	3.2	262	262	4	4
50	1.367	18.23	2.7	262	264	4	4
51	1.460	16.86	2.6	264	264	4	4
52	1.560	15.38	2.8	264	266	4	4
53	1.670	13.80	2.9	266	266	4	4
54	1.792	12.15	3.1	266	268	4	4
55	1.932	10.44	3.3	268	270	4	4
56	2.094	8.69	3.7	270	272	4	4
57	2.294	6.84	4.1	272	274	4	4
58	2.559	4.82	4.9	276	278	4	4
59	2.986	2.52	6.8	280	280	4	4
60	4.000	0.44	10.0	280	280	4	4

Note. Theta below -6 is truncated to -6.

Table M-5. 2018 Legacy MCAS: Raw to Scaled Score Look-Up Table –Introductory Physics Grade HS

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
0	-6	0.00	10.0	200	200	1	1
1	-6	0.00	10.0	200	200	1	1
2	-6	0.00	10.0	202	202	1	1
3	-6	0.00	10.0	202	202	1	1
4	-6	0.00	10.0	204	204	1	1
5	-6	0.00	10.0	204	204	1	1
6	-6	0.00	10.0	206	206	1	1
7	-6	0.00	10.0	206	206	1	1
8	-6	0.00	10.0	208	208	1	1
9	-6	0.00	10.0	208	208	1	1
10	-6	0.00	10.0	210	210	1	1
11	-6	0.00	10.0	210	210	1	1
12	-6	0.00	10.0	212	212	1	1
13	-3.143	0.31	6.2	212	214	1	1
14	-2.183	1.67	2.7	214	216	1	1
15	-1.781	3.16	1.9	216	216	1	1
16	-1.519	4.58	1.6	218	218	1	1
17	-1.319	5.85	1.4	218	218	1	1
18	-1.155	6.95	1.3	218	218	1	1
19	-1.013	7.91	1.8	218	218	1	1
20	-0.886	8.75	2.9	220	220	2	2
21	-0.771	9.51	3.9	220	220	2	2
22	-0.664	10.21	4.9	222	220	2	2
23	-0.563	10.90	5.8	224	222	2	2
24	-0.469	11.57	6.6	226	224	2	2
25	-0.378	12.23	7.0	228	226	2	2
26	-0.292	12.88	6.8	230	228	2	2
27	-0.208	13.51	6.6	232	230	2	2
28	-0.127	14.11	6.4	234	232	2	2
29	-0.049	14.68	6.1	236	234	2	2
30	0.028	15.22	5.8	238	236	2	2
31	0.102	15.71	5.5	240	238	3	2
32	0.176	16.16	5.3	242	240	3	3
33	0.249	16.58	5.0	242	240	3	3
34	0.320	16.95	4.8	244	242	3	3
35	0.392	17.29	4.7	246	244	3	3
36	0.462	17.59	4.7	246	244	3	3
37	0.533	17.85	4.6	248	246	3	3
38	0.604	18.08	4.6	250	248	3	3
39	0.675	18.26	4.6	252	248	3	3
40	0.746	18.39	4.5	252	250	3	3
41	0.818	18.46	4.5	254	252	3	3
42	0.892	18.47	4.5	256	252	3	3
43	0.966	18.38	4.3	256	254	3	3
44	1.043	18.21	3.9	258	256	3	3
45	1.121	17.92	3.6	260	258	4	3

continued

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
46	1.202	17.53	3.3	260	258	4	3
47	1.286	17.02	3.0	262	260	4	4
48	1.374	16.40	2.7	262	262	4	4
49	1.467	15.67	2.7	264	262	4	4
50	1.565	14.85	2.8	264	264	4	4
51	1.670	13.94	2.9	266	264	4	4
52	1.783	12.92	3.0	266	266	4	4
53	1.907	11.79	3.1	268	266	4	4
54	2.044	10.54	3.3	270	268	4	4
55	2.201	9.15	3.5	272	270	4	4
56	2.384	7.62	3.9	274	272	4	4
57	2.610	5.94	4.4	276	274	4	4
58	2.915	4.09	5.3	280	278	4	4
59	3.418	2.04	7.5	280	280	4	4
60	4.000	0.84	10.0	280	280	4	4

Note. Theta below -6 is truncated to -6.

**Table M-6. 2018 Legacy MCAS: Raw to Scaled Score Look-Up Table
Technology and Engineering Grade HS**

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
0	-4.227	0.20	10.0	200	200	1	1
1	-2.678	2.67	4.5	202	202	1	1
2	-2.254	5.19	3.2	206	206	1	1
3	-1.999	7.56	2.7	208	208	1	1
4	-1.813	9.80	2.4	210	208	1	1
5	-1.664	11.89	2.1	210	210	1	1
6	-1.540	13.86	2.0	212	210	1	1
7	-1.432	15.70	1.9	212	212	1	1
8	-1.335	17.43	1.8	212	212	1	1
9	-1.248	19.03	1.7	214	214	1	1
10	-1.168	20.53	1.6	214	214	1	1
11	-1.093	21.91	1.6	214	214	1	1
12	-1.023	23.19	1.5	216	214	1	1
13	-0.956	24.37	1.5	216	216	1	1
14	-0.893	25.44	1.5	216	216	1	1
15	-0.832	26.41	1.4	216	216	1	1
16	-0.774	27.29	1.4	216	216	1	1
17	-0.717	28.07	1.4	218	218	1	1
18	-0.663	28.76	1.4	218	218	1	1
19	-0.609	29.35	1.4	218	218	1	1
20	-0.556	29.86	1.4	218	218	1	1
21	-0.505	30.27	1.9	218	218	1	1
22	-0.454	30.60	2.6	220	220	2	2
23	-0.404	30.85	3.3	220	220	2	2
24	-0.354	31.01	4.0	220	220	2	2
25	-0.304	31.08	4.7	222	220	2	2
26	-0.255	31.07	5.4	224	222	2	2
27	-0.206	30.99	6.1	226	224	2	2
28	-0.157	30.82	6.4	228	226	2	2
29	-0.107	30.57	6.4	230	228	2	2
30	-0.057	30.25	6.4	230	230	2	2
31	-0.007	29.86	6.5	232	232	2	2
32	0.044	29.38	6.3	234	234	2	2
33	0.095	28.84	5.9	236	234	2	2
34	0.147	28.23	5.5	238	236	2	2
35	0.201	27.54	5.1	240	238	3	2
36	0.255	26.79	4.7	240	240	3	3
37	0.311	25.98	4.3	242	242	3	3
38	0.368	25.11	3.9	244	242	3	3
39	0.427	24.17	3.7	244	244	3	3
40	0.488	23.18	3.8	246	244	3	3
41	0.552	22.14	3.9	246	246	3	3
42	0.618	21.06	4.0	248	246	3	3
43	0.687	19.93	4.1	248	248	3	3
44	0.760	18.77	4.2	250	250	3	3
45	0.837	17.58	4.3	252	250	3	3

continued

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
46	0.918	16.37	4.5	254	252	3	3
47	1.005	15.14	4.7	254	254	3	3
48	1.098	13.91	4.7	256	256	3	3
49	1.198	12.69	4.5	258	258	3	3
50	1.308	11.49	4.4	260	260	4	4
51	1.427	10.31	4.3	262	260	4	4
52	1.559	9.18	4.1	264	262	4	4
53	1.706	8.10	4.1	264	264	4	4
54	1.872	7.07	4.4	266	266	4	4
55	2.062	6.09	4.8	268	268	4	4
56	2.284	5.14	5.2	272	270	4	4
57	2.552	4.18	5.8	274	274	4	4
58	2.900	3.13	6.7	278	278	4	4
59	3.429	1.86	8.6	280	280	4	4
60	4.000	0.91	10.0	280	280	4	4

Note. Theta below -6 is truncated to -6.

Table M-7. 2018 Legacy MCAS: Raw to Scaled Score Look-Up Table –Science Grade 5

Raw Score	<i>Theta</i>	<i>Information</i>	<i>SE (Scaled Score)</i>	Scale Score		Achievement Levels	
				2018	2017	2018	2017
0	-6	0.02	10.0	200	200	1	1
1	-6	0.02	10.0	200	200	1	1
2	-6	0.03	10.0	202	202	1	1
3	-6	0.04	10.0	202	202	1	1
4	-6	0.06	10.0	204	204	1	1
5	-6	0.09	10.0	204	204	1	1
6	-6	0.14	10.0	206	204	1	1
7	-5.626	0.20	10.0	206	206	1	1
8	-5.118	0.30	9.3	206	206	1	1
9	-4.609	0.46	7.5	208	208	1	1
10	-4.100	0.72	6.0	208	208	1	1
11	-3.492	1.24	4.6	210	208	1	1
12	-3.059	1.82	3.8	210	210	1	1
13	-2.737	2.41	3.3	212	210	1	1
14	-2.479	3.01	2.9	214	212	1	1
15	-2.263	3.63	2.7	214	212	1	1
16	-2.077	4.25	2.5	216	214	1	1
17	-1.911	4.88	2.3	216	214	1	1
18	-1.763	5.51	2.2	216	216	1	1
19	-1.627	6.15	2.1	218	216	1	1
20	-1.501	6.78	2.0	218	216	1	1
21	-1.383	7.42	2.5	218	218	1	1
22	-1.272	8.06	3.0	220	218	2	1
23	-1.166	8.69	3.4	220	218	2	1
24	-1.065	9.30	3.9	222	220	2	2
25	-0.968	9.90	4.3	222	220	2	2
26	-0.873	10.45	4.8	224	220	2	2
27	-0.781	10.96	5.0	226	222	2	2
28	-0.691	11.41	4.9	228	224	2	2
29	-0.603	11.78	4.8	228	226	2	2
30	-0.515	12.07	4.7	230	228	2	2
31	-0.427	12.27	4.7	232	228	2	2
32	-0.340	12.38	4.7	232	230	2	2
33	-0.251	12.40	4.7	234	232	2	2
34	-0.162	12.32	4.7	236	234	2	2
35	-0.072	12.15	4.9	238	236	2	2
36	0.021	11.90	5.2	238	238	2	2
37	0.116	11.58	5.4	240	238	3	2
38	0.214	11.19	5.7	242	240	3	3
39	0.316	10.73	6.0	244	244	3	3
40	0.422	10.23	6.3	246	246	3	3
41	0.534	9.69	6.4	248	248	3	3
42	0.651	9.11	6.6	252	250	3	3
43	0.775	8.51	6.7	254	254	3	3
44	0.908	7.88	6.3	256	256	3	3
45	1.051	7.24	5.8	260	260	4	4

continued

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
46	1.206	6.61	5.4	262	262	4	4
47	1.376	5.98	4.9	262	264	4	4
48	1.564	5.38	4.5	264	266	4	4
49	1.777	4.79	4.8	268	268	4	4
50	2.023	4.16	5.1	270	272	4	4
51	2.320	3.40	5.7	272	276	4	4
52	2.716	2.40	6.8	278	280	4	4
53	3.383	1.13	9.8	280	280	4	4
54	4.000	0.53	10.0	280	280	4	4

Note. Theta below -6 is truncated to -6.

Table M-8. 2018 Legacy MCAS: Raw to Scaled Score Look-Up Table –Science Grade 8

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
0	-6	0.00	10.0	200	200	1	1
1	-6	0.00	10.0	200	200	1	1
2	-6	0.00	10.0	202	202	1	1
3	-6	0.00	10.0	202	202	1	1
4	-6	0.01	10.0	204	204	1	1
5	-6	0.01	10.0	204	204	1	1
6	-6	0.02	10.0	204	204	1	1
7	-6	0.03	10.0	206	206	1	1
8	-6	0.05	10.0	206	206	1	1
9	-5.711	0.09	10.0	208	206	1	1
10	-4.849	0.19	9.6	208	208	1	1
11	-3.981	0.41	6.4	208	208	1	1
12	-3.089	0.98	4.2	210	210	1	1
13	-2.584	1.56	3.3	212	212	1	1
14	-2.226	2.17	2.8	212	214	1	1
15	-1.947	2.85	2.4	214	214	1	1
16	-1.717	3.60	2.2	214	214	1	1
17	-1.522	4.40	2.0	216	216	1	1
18	-1.351	5.24	1.8	216	216	1	1
19	-1.200	6.11	1.7	218	216	1	1
20	-1.064	7.00	1.6	218	218	1	1
21	-0.939	7.90	1.5	218	218	1	1
22	-0.824	8.79	1.5	218	218	1	1
23	-0.716	9.67	2.1	220	218	2	1
24	-0.615	10.53	2.7	220	220	2	2
25	-0.519	11.34	3.3	220	220	2	2
26	-0.427	12.10	3.9	222	220	2	2
27	-0.338	12.80	4.5	224	222	2	2
28	-0.252	13.43	5.1	224	224	2	2
29	-0.169	13.98	5.1	226	224	2	2
30	-0.087	14.46	5.1	228	226	2	2
31	-0.006	14.87	5.0	230	228	2	2
32	0.074	15.19	4.9	232	230	2	2
33	0.153	15.43	4.9	232	232	2	2
34	0.233	15.58	4.9	234	232	2	2
35	0.313	15.64	4.8	236	234	2	2
36	0.394	15.61	4.6	238	236	2	2
37	0.476	15.49	4.5	238	238	2	2
38	0.559	15.26	4.3	240	240	3	3
39	0.645	14.92	4.2	242	240	3	3
40	0.734	14.48	4.1	242	242	3	3
41	0.826	13.93	4.0	244	244	3	3
42	0.923	13.28	4.1	246	244	3	3
43	1.026	12.52	4.2	248	246	3	3
44	1.135	11.66	4.4	248	248	3	3
45	1.253	10.71	4.6	250	250	3	3

continued

Raw Score	Theta	Information	SE (Scaled Score)	Scale Score		Achievement Levels	
				2018	2017	2018	2017
46	1.383	9.68	4.8	252	252	3	3
47	1.527	8.60	5.1	254	254	3	3
48	1.690	7.47	5.7	258	256	3	3
49	1.880	6.34	6.5	260	258	4	3
50	2.106	5.25	7.5	264	262	4	4
51	2.388	4.22	8.7	270	268	4	4
52	2.758	3.23	9.9	276	276	4	4
53	3.315	2.00	10.0	280	280	4	4
54	4.000	0.83	10.0	280	280	4	4

Note. Theta below -6 is truncated to -6.