

APPENDIX H

ITEM RESPONSE THEORY PARAMETERS

**Table H-1. 2018 Legacy MCAS: IRT Parameters for Dichotomous Items –
ELA Grade 10**

Item Number	Parameters and Measures of Standard Error						Item Number	Parameters and Measures of Standard Error					
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>		<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>
314958	0.36390	0.00555	-2.20664	0.03285	0.00000	0.00000	309854	0.69858	0.01187	-0.59771	0.02985	0.14880	0.01174
315164	0.68438	0.01250	-1.25280	0.04574	0.18593	0.01858	309861	0.66178	0.01139	-0.98884	0.03815	0.12798	0.01536
314971	0.95204	0.01588	-1.60641	0.03525	0.23293	0.01802	309859	0.37917	0.01002	-0.80524	0.08895	0.08216	0.02396
314992	0.53740	0.00786	-2.93545	0.03581	0.00000	0.00000	309864	0.63938	0.00890	-0.99623	0.02760	0.03799	0.01109
314981	0.49996	0.00639	-2.14483	0.02477	0.00000	0.00000	309857	1.23783	0.01676	-0.21987	0.01161	0.21580	0.00576
314984	1.12980	0.01758	-2.04485	0.02964	0.11681	0.01941	309865	0.55851	0.01469	0.33910	0.03646	0.23020	0.01091
314967	0.94998	0.01422	-0.69636	0.02089	0.21492	0.00952	315325	0.62468	0.01166	-1.73890	0.06135	0.13468	0.02617
314994	0.52812	0.01251	-0.95085	0.06738	0.20361	0.02133	315330	0.76384	0.01502	-0.24254	0.02848	0.30454	0.00979
316630	1.08943	0.01807	-1.66527	0.03102	0.24734	0.01711	315326	0.47959	0.00635	-2.24610	0.02694	0.00000	0.00000
316629	0.60301	0.01115	-2.15651	0.07178	0.11475	0.03218	315332	0.59997	0.01277	-1.32981	0.06384	0.21911	0.02297
316631	0.72218	0.01105	-2.12836	0.04547	0.07383	0.02332	315347	0.76895	0.01400	-0.78093	0.03371	0.26964	0.01283
316636	0.58167	0.01065	-2.14618	0.07164	0.10411	0.03130	315336	0.98259	0.01393	-1.09322	0.02219	0.16094	0.01126
316571	0.95823	0.01439	-1.90445	0.03269	0.10617	0.01920	315343	0.92821	0.01489	-1.42668	0.03196	0.21397	0.01587
316579	1.00627	0.01433	-1.73857	0.02717	0.09754	0.01586	315348	0.30188	0.00486	-0.94920	0.02099	0.00000	0.00000
316580	1.17206	0.01885	-1.71085	0.02765	0.21544	0.01643	312078	0.52061	0.01451	0.22291	0.04471	0.23211	0.01272
316590	0.63033	0.01016	-1.67063	0.04709	0.07509	0.02064	312084	0.63211	0.01026	-0.93721	0.03498	0.07596	0.01400
309775	0.45326	0.01056	-0.45447	0.05675	0.08231	0.01729	312092	0.68443	0.01054	-1.72414	0.04233	0.07383	0.01979
309852	0.80277	0.01289	-1.61920	0.03904	0.14035	0.01936	312094	0.67192	0.01172	-0.49492	0.03013	0.14082	0.01152

**Table H-2. 2018 Legacy MCAS: IRT Parameters for Polytomous Items –
ELA Grade 10**

Item Number	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>D0</i>	<i>SE (D0)</i>	<i>D1</i>	<i>SE (D1)</i>	<i>D2</i>	<i>SE (D2)</i>	<i>D3</i>	<i>SE (D3)</i>	<i>D4</i>	<i>SE (D4)</i>	<i>D5</i>	<i>SE(D5)</i>
308234C	1.19116	0.00559	-2.11874	0.00406	2.70121	0.08526	2.13363	0.05008	-0.14121	0.00913	-0.58172	0.00724	-1.81123	0.00486	-2.30068	0.00473
308234T	1.12924	0.00409	0.22573	0.00380	3.94499	0.03022	3.54358	0.02201	2.26037	0.00948	1.82168	0.00758	0.55270	0.00504	0.08105	0.00488
309870	1.27207	0.00506	-0.51613	0.00345	1.78429	0.01016	0.67617	0.00592	-0.51610	0.00450	-1.94436	0.00610	0.00000	0.00000	n/a	n/a
315010	1.02185	0.00412	-1.06596	0.00428	2.02401	0.01632	0.79511	0.00856	-0.58479	0.00553	-2.23433	0.00623	0.00000	0.00000	n/a	n/a
315350	1.00676	0.00404	-1.05683	0.00454	2.36667	0.02004	0.95467	0.00922	-0.54927	0.00565	-2.77208	0.00778	0.00000	0.00000	n/a	n/a
316592	1.04902	0.00417	-0.90355	0.00417	2.14519	0.01597	0.84163	0.00808	-0.66708	0.00526	-2.31973	0.00669	0.00000	0.00000	n/a	n/a

Item Number	Parameters and Measures of Standard Error									
	<i>D6</i>	<i>SE(D6)</i>	<i>D7</i>	<i>SE(D7)</i>	<i>D8</i>	<i>SE(D8)</i>	<i>D9</i>	<i>SE(D9)</i>	<i>D10</i>	<i>SE(D10)</i>
308234C	0.00000	0.00000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
308234T	-1.52468	0.00750	-2.24742	0.01185	-4.02187	0.05524	-4.41039	0.07978	0.00000	0.00000

**Table H-3. 2018 Legacy MCAS: IRT Parameters for Dichotomous Items –
Mathematics Grade 10**

Item Number	Parameters and Measures of Standard Error						Item Number	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)		a	SE (a)	b	SE (b)	c	SE (c)
306520	1.23021	0.01727	-1.81874	0.02206	0.06904	0.01652	303358	0.88734	0.00834	-1.34229	0.01006	0.00000	0.00000
311985	1.19634	0.01640	-0.24913	0.01255	0.20887	0.00614	299925	0.71259	0.00916	-1.06485	0.02463	0.03420	0.01126
311975	0.99576	0.01326	-1.14370	0.02124	0.08760	0.01220	315421	1.22624	0.01787	-1.50610	0.02250	0.14154	0.01552
273584	2.02752	0.02551	-0.14364	0.00644	0.20140	0.00388	315004	0.60379	0.01548	0.22241	0.03610	0.23870	0.01126
300997	1.49878	0.02240	-0.92401	0.01491	0.27923	0.00888	314928	1.18830	0.01842	0.01806	0.01309	0.28911	0.00563
306583	1.08998	0.01620	-0.00414	0.01334	0.22344	0.00589	312390	0.90182	0.01480	-0.16412	0.01929	0.22282	0.00796
294634	1.46987	0.01806	-0.04101	0.00819	0.16509	0.00426	311264	1.23700	0.01625	-0.93794	0.01541	0.14260	0.00921
294307	0.86174	0.01386	-0.73974	0.02657	0.19251	0.01207	315025	0.35447	0.00510	-0.94458	0.01793	0.00000	0.00000
304294	1.62776	0.02317	-0.16305	0.00962	0.30432	0.00495	299922	0.72164	0.00972	-1.47871	0.03118	0.04548	0.01553
306549	1.27521	0.01821	0.07178	0.01079	0.24009	0.00495	315022	1.38750	0.01848	-0.08595	0.00985	0.21964	0.00494
315074	1.09236	0.01499	-0.50274	0.01535	0.17730	0.00772	306502	1.76277	0.05593	1.53450	0.01162	0.31989	0.00240
315451	1.16284	0.01640	-1.73454	0.02386	0.08265	0.01718	312400	1.15418	0.01578	-0.92622	0.01754	0.16189	0.01000
303277	1.81516	0.02575	0.08966	0.00791	0.29651	0.00401	311303	1.26873	0.01791	-0.10250	0.01162	0.24510	0.00551
281598	0.76354	0.01380	-0.81092	0.03568	0.21462	0.01483	315080	0.65779	0.01248	-1.57760	0.06121	0.14146	0.02812
315446	1.00259	0.01516	-1.23041	0.02675	0.17280	0.01502	279337	0.81600	0.00724	-0.89552	0.00844	0.00000	0.00000
311210	1.04121	0.01365	-0.16452	0.01249	0.12221	0.00592	312357	0.76979	0.00671	0.13088	0.00673	0.00000	0.00000
315738	0.70145	0.01275	-1.48365	0.05287	0.14512	0.02504	315758	0.70751	0.00644	-0.59182	0.00827	0.00000	0.00000
315030	0.46420	0.01677	-2.33646	0.23422	0.39255	0.06402	268273	0.90116	0.00734	-0.13540	0.00604	0.00000	0.00000

**Table H-4. 2018 Legacy MCAS: IRT Parameters for Polytomous Items –
Mathematics Grade 10**

Item Number	Parameters and Measures of Standard Error													
	a	SE (a)	b	SE (b)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)	D4	SE (D4)
287752	1.57564	0.00661	-0.19103	0.00281	1.19136	0.00565	0.19086	0.00406	-0.22903	0.00391	-1.15318	0.00448	0.00000	0.00000
307696	1.52558	0.00695	-0.33731	0.00309	1.58952	0.00763	-0.11557	0.00409	-0.56320	0.00399	-0.91075	0.00417	0.00000	0.00000
312359	1.35690	0.00567	-0.28134	0.00319	1.12222	0.00608	0.32348	0.00463	-0.34106	0.00429	-1.10464	0.00472	0.00000	0.00000
313079	1.44262	0.00628	-0.45411	0.00315	1.95415	0.01062	-0.01380	0.00438	-0.69931	0.00414	-1.24103	0.00449	0.00000	0.00000
315128	1.14527	0.00472	-0.75044	0.00377	1.65708	0.01087	0.36191	0.00590	-0.49210	0.00492	-1.52689	0.00524	0.00000	0.00000
315778	1.57896	0.00788	-0.64984	0.00330	0.64311	0.00538	0.19022	0.00449	-0.25428	0.00404	-0.57904	0.00396	0.00000	0.00000

**Table H-5. 2018 Legacy MCAS: IRT Parameters for Dichotomous Items –
Biology Grade HS**

Item Number	Parameters and Measures of Standard Error						Item Number	Parameters and Measures of Standard Error					
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>		<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>
301372	0.95641	0.00000	-0.44081	0.00000	0.47520	0.00000	314734	0.66755	0.00000	-0.37165	0.00000	0.16139	0.00000
305768	0.80164	0.00000	-0.50874	0.00000	0.18904	0.00000	313366	0.90039	0.00000	1.57232	0.00000	0.40836	0.00000
313372	0.86236	0.00000	0.60807	0.00000	0.21109	0.00000	316190	0.44378	0.00000	0.88601	0.00000	0.22342	0.00000
273546	1.94833	0.00000	1.07219	0.00000	0.31684	0.00000	313331	1.82461	0.00000	-0.44511	0.00000	0.18216	0.00000
294821	1.12843	0.00000	0.93360	0.00000	0.49235	0.00000	299828	0.35063	0.00000	-1.40011	0.00000	0.00000	0.00000
305773	1.58844	0.00000	0.41480	0.00000	0.27502	0.00000	299981	0.72263	0.00000	1.20770	0.00000	0.47647	0.00000
316215	0.98689	0.00000	-0.65570	0.00000	0.22974	0.00000	301381	1.28836	0.00000	1.28630	0.00000	0.40732	0.00000
305073	1.11094	0.00000	0.01053	0.00000	0.27266	0.00000	316145	0.97544	0.00000	-0.76525	0.00000	0.16557	0.00000
305074	1.11046	0.00000	-0.46972	0.00000	0.23870	0.00000	316128	0.92131	0.00000	-0.92484	0.00000	0.22861	0.00000
305070	0.92225	0.00000	0.12675	0.00000	0.28796	0.00000	289310	1.17274	0.00000	1.34600	0.00000	0.50886	0.00000
305071	0.66112	0.00000	-0.79602	0.00000	0.20983	0.00000	296649	0.35167	0.00000	1.02370	0.00000	0.15256	0.00000
304841	1.03697	0.00000	-0.10380	0.00000	0.25896	0.00000	305776	0.44001	0.00000	-0.36493	0.00000	0.12937	0.00000
301351	1.67437	0.00000	-0.42505	0.00000	0.29977	0.00000	304928	1.59316	0.00000	1.22420	0.00000	0.30725	0.00000
304871	1.18885	0.00000	-0.11592	0.00000	0.16614	0.00000	313436	0.75897	0.00000	-0.65018	0.00000	0.12714	0.00000
316251	1.11193	0.00000	-0.43347	0.00000	0.12561	0.00000	273520	1.34692	0.00000	-0.09214	0.00000	0.35995	0.00000
273292	1.77287	0.00000	-0.10418	0.00000	0.22053	0.00000	290008	0.80882	0.00000	-0.06444	0.00000	0.27807	0.00000
261199	0.57617	0.00000	-0.61444	0.00000	0.10192	0.00000	313369	0.51174	0.00000	0.97282	0.00000	0.26800	0.00000
316229	1.35319	0.00000	1.38299	0.00000	0.39058	0.00000	276760	2.11141	0.00000	0.24898	0.00000	0.23850	0.00000
310071	1.45844	0.00000	-0.25321	0.00000	0.28184	0.00000							
313445	0.95393	0.00000	0.94669	0.00000	0.44420	0.00000							
301406	1.34786	0.00000	0.96575	0.00000	0.40572	0.00000							
308744	0.31792	0.00000	-1.67615	0.00000	0.00000	0.00000							

**Table H-6. 2018 Legacy MCAS: IRT Parameters for Polytomous Items –
Biology Grade HS**

Item Number	Parameters and Measures of Standard Error													
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>	<i>D1</i>	<i>SE (D1)</i>	<i>D2</i>	<i>SE (D2)</i>	<i>D3</i>	<i>SE (D3)</i>	<i>D4</i>	<i>SE (D4)</i>
208283	1.20101	0.00000	0.43967	0.00000	1.51817	0.00000	0.20718	0.00000	-0.52494	0.00000	-1.20041	0.00000	0.00000	0.00000
234806	1.26082	0.00000	-0.22716	0.00000	1.22788	0.00000	0.21226	0.00000	-0.57521	0.00000	-0.86492	0.00000	0.00000	0.00000
289148	1.05049	0.00000	1.01280	0.00000	2.35059	0.00000	1.19350	0.00000	-0.75837	0.00000	-2.78572	0.00000	0.00000	0.00000
305077	0.72097	0.00000	0.57361	0.00000	1.98587	0.00000	0.71669	0.00000	-0.47155	0.00000	-2.23102	0.00000	0.00000	0.00000
316268	0.95574	0.00000	0.14511	0.00000	1.79432	0.00000	1.04721	0.00000	-0.71187	0.00000	-2.12966	0.00000	0.00000	0.00000

**Table H-7. 2018 Legacy MCAS: IRT Parameters for Dichotomous Items –
Chemistry Grade HS**

Item Number	Parameters and Measures of Standard Error						Item Number	Parameters and Measures of Standard Error					
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>		<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>
299695	1.05173	0.00000	0.39622	0.00000	0.26279	0.00000	273017	1.48359	0.00000	0.10594	0.00000	0.17543	0.00000
261459	1.63279	0.00000	0.81956	0.00000	0.40279	0.00000	281281	1.28463	0.00000	0.34126	0.00000	0.23600	0.00000
271908	0.70522	0.00000	0.54454	0.00000	0.18645	0.00000	261057	1.53547	0.00000	-0.31514	0.00000	0.28316	0.00000
294728	1.57995	0.00000	0.61843	0.00000	0.23313	0.00000	288262	1.16445	0.00000	0.64628	0.00000	0.24602	0.00000
230419	0.92060	0.00000	-0.02978	0.00000	0.22314	0.00000	229644	1.13744	0.00000	0.46898	0.00000	0.29963	0.00000
298512	0.98021	0.00000	-0.02589	0.00000	0.20611	0.00000	275829	1.66992	0.00000	1.01372	0.00000	0.32342	0.00000
258916	0.93123	0.00000	-0.12891	0.00000	0.26904	0.00000	281268	0.93637	0.00000	0.75954	0.00000	0.25937	0.00000
258902	0.92526	0.00000	0.65188	0.00000	0.29203	0.00000	300101	1.44996	0.00000	0.22658	0.00000	0.28290	0.00000
230665	1.33865	0.00000	0.05040	0.00000	0.21946	0.00000	208285	1.40153	0.00000	-0.08463	0.00000	0.30651	0.00000
288245	1.38330	0.00000	0.85057	0.00000	0.25164	0.00000	261451	1.06481	0.00000	-0.10857	0.00000	0.19369	0.00000
229662	1.89999	0.00000	-0.46671	0.00000	0.29745	0.00000	260908	1.94286	0.00000	0.28602	0.00000	0.30319	0.00000
294746	1.25296	0.00000	-0.76504	0.00000	0.22922	0.00000	294673	1.03392	0.00000	-0.05044	0.00000	0.25047	0.00000
226974	1.01710	0.00000	0.24303	0.00000	0.28970	0.00000	288261	1.31195	0.00000	0.32007	0.00000	0.27376	0.00000
281924	1.07638	0.00000	0.92158	0.00000	0.37258	0.00000	275898	1.19030	0.00000	-0.09396	0.00000	0.17726	0.00000
246683	0.78994	0.00000	-0.31094	0.00000	0.22404	0.00000	275906	0.89840	0.00000	-0.77492	0.00000	0.22708	0.00000
287590	1.12103	0.00000	0.90997	0.00000	0.24361	0.00000	281172	0.76096	0.00000	1.24860	0.00000	0.32386	0.00000
258914	0.91825	0.00000	0.12319	0.00000	0.18072	0.00000	244827	1.34476	0.00000	-0.01798	0.00000	0.20149	0.00000
275850	1.81931	0.00000	-0.19285	0.00000	0.17290	0.00000	273191	0.84459	0.00000	-0.97461	0.00000	0.27690	0.00000
274078	1.07070	0.00000	0.62539	0.00000	0.33608	0.00000	294770	1.03134	0.00000	0.64337	0.00000	0.18399	0.00000
272999	1.52185	0.00000	0.17663	0.00000	0.28122	0.00000							
273026	0.77609	0.00000	0.93523	0.00000	0.19599	0.00000							

**Table H-8. 2018 Legacy MCAS: IRT Parameters for Polytomous Items –
Chemistry Grade 10**

Item Number	Parameters and Measures of Standard Error													
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>D0</i>	<i>SE (D0)</i>	<i>D1</i>	<i>SE (D1)</i>	<i>D2</i>	<i>SE (D2)</i>	<i>D3</i>	<i>SE (D3)</i>	<i>D4</i>	<i>SE (D4)</i>
244944	1.03014	0.00000	1.05998	0.00000	1.04609	0.00000	0.42233	0.00000	-0.43829	0.00000	-1.03013	0.00000	0.00000	0.00000
260796	1.43032	0.00000	0.67196	0.00000	1.29537	0.00000	0.60129	0.00000	-0.53347	0.00000	-1.36319	0.00000	0.00000	0.00000
294709	1.87259	0.00000	0.55217	0.00000	0.81672	0.00000	0.24701	0.00000	-0.23991	0.00000	-0.82381	0.00000	0.00000	0.00000
298326	1.20408	0.00000	0.88878	0.00000	1.34355	0.00000	0.22479	0.00000	-0.49439	0.00000	-1.07395	0.00000	0.00000	0.00000
299725	1.03889	0.00000	0.38096	0.00000	1.05412	0.00000	0.69184	0.00000	-0.31762	0.00000	-1.42833	0.00000	0.00000	0.00000

**Table H-9. 2018 Legacy MCAS: IRT Parameters for Dichotomous Items –
Intro to Physics Grade HS**

Item Number	Parameters and Measures of Standard Error						Item Number	Parameters and Measures of Standard Error					
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>		<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>
311351	1.19087	0.00000	0.05818	0.00000	0.31285	0.00000	313731	0.58262	0.00000	-0.68598	0.00000	0.19085	0.00000
316356	1.35037	0.00000	0.62465	0.00000	0.39215	0.00000	310442	0.78848	0.00000	0.29056	0.00000	0.27898	0.00000
313621	1.24084	0.00000	-0.20510	0.00000	0.19441	0.00000	313706	0.95084	0.00000	0.68639	0.00000	0.33292	0.00000
311319	0.94905	0.00000	-0.10842	0.00000	0.35927	0.00000	311020	0.61834	0.00000	0.70568	0.00000	0.38270	0.00000
305387	0.36903	0.00000	0.50624	0.00000	0.21185	0.00000	280449	1.75913	0.00000	1.04350	0.00000	0.40948	0.00000
304750	1.01316	0.00000	0.58327	0.00000	0.31160	0.00000	280813	0.78410	0.00000	0.80842	0.00000	0.26430	0.00000
304715	0.79493	0.00000	1.15126	0.00000	0.50207	0.00000	311373	1.25751	0.00000	0.92181	0.00000	0.41127	0.00000
316357	1.17838	0.00000	0.67343	0.00000	0.43231	0.00000	305490	1.41113	0.00000	0.60641	0.00000	0.43669	0.00000
287380	1.22331	0.00000	1.49902	0.00000	0.32101	0.00000	313642	1.26279	0.00000	-0.14658	0.00000	0.19763	0.00000
280950	0.88876	0.00000	0.62393	0.00000	0.29979	0.00000	316302	0.98657	0.00000	1.03885	0.00000	0.47123	0.00000
311353	0.82624	0.00000	0.56232	0.00000	0.35714	0.00000	287311	0.73326	0.00000	0.60311	0.00000	0.23832	0.00000
310457	0.69463	0.00000	0.02478	0.00000	0.30399	0.00000	316307	0.87918	0.00000	1.15015	0.00000	0.35371	0.00000
286519	1.18050	0.00000	1.05793	0.00000	0.41562	0.00000	285643	1.04192	0.00000	0.71877	0.00000	0.34002	0.00000
290767	1.02950	0.00000	0.90288	0.00000	0.35914	0.00000	313719	1.00443	0.00000	0.37888	0.00000	0.36075	0.00000
304739	0.56665	0.00000	-0.13190	0.00000	0.18993	0.00000	315665	0.77056	0.00000	0.89858	0.00000	0.29757	0.00000
317051	1.00294	0.00000	0.49216	0.00000	0.40397	0.00000	310445	0.69936	0.00000	0.10066	0.00000	0.23487	0.00000
310449	0.77058	0.00000	0.08463	0.00000	0.20817	0.00000	304781	0.48660	0.00000	0.34346	0.00000	0.21524	0.00000
304772	1.12600	0.00000	-0.38697	0.00000	0.15473	0.00000	311317	1.45581	0.00000	-0.20791	0.00000	0.30765	0.00000
293918	1.46200	0.00000	1.16140	0.00000	0.36678	0.00000	293932	1.43303	0.00000	0.48215	0.00000	0.28185	0.00000
313644	0.84380	0.00000	0.53976	0.00000	0.25068	0.00000							
287386	0.69322	0.00000	-0.32813	0.00000	0.20115	0.00000							

**Table H-10. 2018 Legacy MCAS: IRT Parameters for Polytomous Items –
Intro to Physics Grade HS**

Item Number	Parameters and Measures of Standard Error													
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>D0</i>	<i>SE (D0)</i>	<i>D1</i>	<i>SE (D1)</i>	<i>D2</i>	<i>SE (D2)</i>	<i>D3</i>	<i>SE (D3)</i>	<i>D4</i>	<i>SE (D4)</i>
287331	1.01201	0.00000	0.47041	0.00000	1.34809	0.00000	0.75342	0.00000	-0.19586	0.00000	-1.90565	0.00000	0.00000	0.00000
299317	1.07425	0.00000	0.77585	0.00000	1.96996	0.00000	0.53470	0.00000	-0.87139	0.00000	-1.63327	0.00000	0.00000	0.00000
304741	1.14814	0.00000	0.67633	0.00000	1.61604	0.00000	0.45803	0.00000	-0.47675	0.00000	-1.59732	0.00000	0.00000	0.00000
306934	1.23183	0.00000	0.26375	0.00000	1.13215	0.00000	0.52440	0.00000	-0.29431	0.00000	-1.36224	0.00000	0.00000	0.00000
316432	1.55356	0.00000	0.51791	0.00000	1.39914	0.00000	0.33541	0.00000	-0.44839	0.00000	-1.28616	0.00000	0.00000	0.00000

**Table H-11. 2018 Legacy MCAS: IRT Parameters for Dichotomous Items –
Technology and Engineering Grade HS**

Item Number	Parameters and Measures of Standard Error						Item Number	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)		a	SE (a)	b	SE (b)	c	SE (c)
306795	1.00000	0.00000	-0.58652	0.00000	0.00000	0.00000	287791	1.00000	0.00000	-0.53223	0.00000	0.00000	0.00000
310051	1.00000	0.00000	-0.28418	0.00000	0.00000	0.00000	296455	1.00000	0.00000	-0.09083	0.00000	0.00000	0.00000
310044	1.00000	0.00000	0.00278	0.00000	0.00000	0.00000	294365	1.00000	0.00000	-0.33322	0.00000	0.00000	0.00000
305082	1.00000	0.00000	0.13799	0.00000	0.00000	0.00000	296427	1.00000	0.00000	-0.09149	0.00000	0.00000	0.00000
294375	1.00000	0.00000	-0.36282	0.00000	0.00000	0.00000	316871	1.00000	0.00000	-0.43343	0.00000	0.00000	0.00000
299111	1.00000	0.00000	0.25785	0.00000	0.00000	0.00000	206618	1.00000	0.00000	-0.21537	0.00000	0.00000	0.00000
294350	1.00000	0.00000	0.03896	0.00000	0.00000	0.00000	305183	1.00000	0.00000	-0.31027	0.00000	0.00000	0.00000
283439	1.00000	0.00000	-0.18853	0.00000	0.00000	0.00000	273081	1.00000	0.00000	-0.60365	0.00000	0.00000	0.00000
274563	1.00000	0.00000	-0.70730	0.00000	0.00000	0.00000	287799	1.00000	0.00000	-0.96084	0.00000	0.00000	0.00000
274585	1.00000	0.00000	-0.24613	0.00000	0.00000	0.00000	313280	1.00000	0.00000	-0.29335	0.00000	0.00000	0.00000
283356	1.00000	0.00000	-0.61969	0.00000	0.00000	0.00000	265889	1.00000	0.00000	-0.52128	0.00000	0.00000	0.00000
296447	1.00000	0.00000	-0.64239	0.00000	0.00000	0.00000	313236	1.00000	0.00000	-0.42611	0.00000	0.00000	0.00000
281470	1.00000	0.00000	-0.72894	0.00000	0.00000	0.00000	313231	1.00000	0.00000	-0.83055	0.00000	0.00000	0.00000
246667	1.00000	0.00000	-0.03540	0.00000	0.00000	0.00000	310287	1.00000	0.00000	-0.16026	0.00000	0.00000	0.00000
299345	1.00000	0.00000	-0.16961	0.00000	0.00000	0.00000	316494	1.00000	0.00000	-0.43454	0.00000	0.00000	0.00000
294363	1.00000	0.00000	0.26725	0.00000	0.00000	0.00000	274641	1.00000	0.00000	-0.25854	0.00000	0.00000	0.00000
296414	1.00000	0.00000	-0.60092	0.00000	0.00000	0.00000	299284	1.00000	0.00000	0.41096	0.00000	0.00000	0.00000
313237	1.00000	0.00000	0.09693	0.00000	0.00000	0.00000	310310	1.00000	0.00000	-0.26569	0.00000	0.00000	0.00000
289934	1.00000	0.00000	0.10001	0.00000	0.00000	0.00000							
310308	1.00000	0.00000	-0.05391	0.00000	0.00000	0.00000							
316902	1.00000	0.00000	-1.10136	0.00000	0.00000	0.00000							
305100	1.00000	0.00000	-0.54190	0.00000	0.00000	0.00000							

**Table H-12. 2018 Legacy MCAS: IRT Parameters for Polytomous Items –
Technology and Engineering Grade HS**

Item Number	Parameters and Measures of Standard Error													
	a	SE (a)	b	SE (b)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	d3	SE(d3)	d4	SE(d4)
268493	1.00000	0.00000	0.68048	0.00000	1.15308	0.00000	0.44285	0.00000	-0.35469	0.00000	-1.24124	0.00000	0.00000	0.00000
274663	1.00000	0.00000	0.80245	0.00000	1.12307	0.00000	0.34895	0.00000	-0.11190	0.00000	-1.36013	0.00000	0.00000	0.00000
290854	1.00000	0.00000	1.48968	0.00000	1.76932	0.00000	0.38526	0.00000	-0.57526	0.00000	-1.57933	0.00000	0.00000	0.00000
305128	1.00000	0.00000	0.83679	0.00000	1.53406	0.00000	0.70585	0.00000	-0.60127	0.00000	-1.63864	0.00000	0.00000	0.00000
316542	1.00000	0.00000	0.13865	0.00000	1.02581	0.00000	0.29074	0.00000	-0.12852	0.00000	-1.18803	0.00000	0.00000	0.00000

**Table H-13. 2018 Legacy MCAS: IRT Parameters for Dichotomous Items –
Science Grade 5**

Item Number	Parameters and Measures of Standard Error						Item Number	Parameters and Measures of Standard Error					
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>		<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>
304603	0.72255	0.01207	-1.00335	0.03379	0.22620	0.01295	299496	0.56657	0.01489	0.71232	0.02776	0.21813	0.00839
281791	0.83472	0.01443	0.02062	0.01914	0.25409	0.00703	264839	0.34827	0.00917	-1.10451	0.10142	0.08772	0.02526
315971	0.40777	0.00549	-2.22351	0.02790	0.00000	0.00000	304655	0.59102	0.01049	-0.73025	0.03706	0.14148	0.01297
315947	1.08183	0.01630	-1.05671	0.02139	0.29847	0.01003	281799	0.34839	0.00504	-1.97053	0.02825	0.00000	0.00000
315980	1.06870	0.01575	-0.21748	0.01455	0.25722	0.00628	273767	0.75953	0.01324	-0.26901	0.02438	0.24556	0.00879
315990	0.75658	0.01226	-1.58637	0.03868	0.20786	0.01659	304636	0.88662	0.01420	-0.66471	0.02358	0.28369	0.00941
291387	0.85549	0.01650	0.12795	0.02044	0.33654	0.00682	304609	0.24143	0.01463	-1.00193	0.34446	0.25099	0.05120
313099	0.93515	0.01485	-0.67715	0.02245	0.29938	0.00912	291332	0.77190	0.01214	-0.43875	0.02279	0.18975	0.00890
291245	0.59550	0.02023	1.06659	0.02881	0.34647	0.00752	294433	0.71181	0.01164	-0.06540	0.02062	0.14447	0.00771
316901	1.03515	0.01572	-0.28866	0.01614	0.27717	0.00678	315957	1.06859	0.01660	0.09806	0.01323	0.26386	0.00540
315995	0.36680	0.00504	-1.75172	0.02440	0.00000	0.00000	294496	0.89944	0.01398	-0.32936	0.01900	0.24425	0.00765
291258	0.45290	0.00564	-2.00953	0.02318	0.00000	0.00000	315960	0.82730	0.01204	-0.98698	0.02489	0.18151	0.01083
273683	0.82888	0.01970	0.46759	0.02207	0.41583	0.00623	288215	0.60885	0.01126	-0.98513	0.04336	0.19996	0.01505
315966	1.11697	0.01603	-0.62094	0.01637	0.27033	0.00758	253150	1.24355	0.01759	-0.51972	0.01392	0.28024	0.00668
289422	0.62212	0.01263	0.10870	0.02755	0.19512	0.00903	315962	1.29978	0.01722	-0.48506	0.01201	0.23242	0.00611
315959	0.72864	0.01211	-0.81414	0.03076	0.22224	0.01167	264894	0.82589	0.01268	-0.40835	0.02069	0.20216	0.00830
315974	0.75281	0.01226	-0.13122	0.02060	0.17611	0.00779	315950	0.58122	0.02100	1.47887	0.02569	0.26745	0.00669
291478	0.63382	0.01165	-1.43776	0.05017	0.22369	0.01837							
304599	0.51502	0.01109	-0.55207	0.04853	0.17032	0.01480							
291384	1.05291	0.02362	-0.62136	0.03021	0.60690	0.00789							
309966	1.03423	0.01463	-1.05404	0.02037	0.23257	0.00987							

**Table H-14. 2018 Legacy MCAS: IRT Parameters for Polytomous Items –
Science Grade 5**

Item Number	Parameters and Measures of Standard Error													
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>D0</i>	<i>SE (D0)</i>	<i>D1</i>	<i>SE (D1)</i>	<i>D2</i>	<i>SE (D2)</i>	<i>d3</i>	<i>SE(d3)</i>	<i>d4</i>	<i>SE(d4)</i>
281868	0.89988	0.00366	0.36099	0.00463	1.33921	0.00656	0.68419	0.00584	-0.58683	0.00632	-1.43657	0.00839	0.00000	0.00000
289354	0.82314	0.00326	-0.19906	0.00499	2.10503	0.01070	0.25109	0.00634	-0.87129	0.00642	-1.48483	0.00735	0.00000	0.00000
299546	1.15574	0.00444	0.20560	0.00366	1.83699	0.00719	0.50417	0.00488	-0.45125	0.00503	-1.88990	0.00910	0.00000	0.00000
317083	0.75239	0.00291	-0.67966	0.00545	1.87361	0.01203	0.57480	0.00777	-0.34742	0.00671	-2.10099	0.00809	0.00000	0.00000

**Table H-15. 2018 Legacy MCAS: IRT Parameters for Dichotomous Items –
Science Grade 8**

Item Number	Parameters and Measures of Standard Error						Item Number	Parameters and Measures of Standard Error					
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>		<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>
265228	0.72940	0.01496	-1.81319	0.05662	0.38685	0.01801	289680	0.97320	0.01397	0.47578	0.01053	0.13967	0.00433
310260	0.40303	0.00912	-2.03289	0.10372	0.10425	0.02979	294222	0.68109	0.01367	0.26821	0.02363	0.25270	0.00763
290150	0.77321	0.01286	-0.46598	0.02502	0.27147	0.00887	265267	1.08543	0.01761	0.26620	0.01321	0.30004	0.00525
291708	0.92560	0.01328	-0.77997	0.02035	0.23823	0.00848	313184	1.11031	0.02002	0.47840	0.01314	0.34293	0.00486
282016	0.95168	0.02734	0.96521	0.01875	0.48960	0.00475	299466	0.88802	0.01365	-0.09468	0.01711	0.23944	0.00670
229364	0.87403	0.01473	-0.95031	0.02831	0.35557	0.01016	265306	1.27955	0.02673	0.68908	0.01258	0.43974	0.00414
246351	1.14630	0.02050	0.94477	0.00977	0.21650	0.00359	294073	0.46414	0.00549	-2.00893	0.02313	0.00000	0.00000
316036	1.16486	0.01833	0.25636	0.01212	0.29908	0.00500	291857	1.11797	0.01589	0.36470	0.01020	0.19095	0.00442
316029	0.89680	0.01442	-0.17881	0.01891	0.28926	0.00713	291999	1.17148	0.01559	-0.44965	0.01342	0.23975	0.00636
291979	0.29275	0.00470	-2.28581	0.03800	0.00000	0.00000	313193	1.01232	0.01505	-1.15408	0.02251	0.27728	0.00966
282039	1.47143	0.02156	-0.30715	0.01190	0.35387	0.00572	229440	1.17407	0.01733	0.09685	0.01207	0.27779	0.00523
289633	0.84297	0.01182	-0.35330	0.01750	0.17063	0.00709	294103	0.68283	0.01084	-0.81441	0.02926	0.17490	0.01053
292003	0.71217	0.01316	-1.20517	0.04100	0.32851	0.01334	299397	1.31430	0.01874	0.35659	0.00920	0.23289	0.00417
291712	0.83535	0.01572	0.50126	0.01647	0.26118	0.00582	281955	0.78757	0.01609	0.30501	0.02161	0.33650	0.00687
273959	0.52422	0.00954	-1.66030	0.05790	0.09891	0.01949	316007	1.03723	0.01784	0.28202	0.01458	0.32701	0.00548
291974	0.55807	0.01022	-1.17010	0.04683	0.15073	0.01529	274032	1.22796	0.02356	0.31686	0.01450	0.45719	0.00494
304555	1.19455	0.01544	0.15240	0.00959	0.17319	0.00447	281974	1.25657	0.02155	0.70836	0.00990	0.27921	0.00389
282007	1.32548	0.01794	-0.23116	0.01137	0.26915	0.00554							
294061	1.02425	0.01563	-0.62022	0.01936	0.32533	0.00788							
317093	0.90044	0.01640	-1.27373	0.03396	0.41845	0.01157							
273915	0.76284	0.01238	-0.50488	0.02482	0.24702	0.00895							

**Table H-16. 2018 Legacy MCAS: IRT Parameters for Polytomous Items –
Science Grade 8**

Item Number	Parameters and Measures of Standard Error													
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>D0</i>	<i>SE (D0)</i>	<i>D1</i>	<i>SE (D1)</i>	<i>D2</i>	<i>SE (D2)</i>	<i>d3</i>	<i>SE(d3)</i>	<i>d4</i>	<i>SE(d4)</i>
288297	1.10696	0.00480	1.06814	0.00401	1.37286	0.00516	0.57433	0.00492	-0.02515	0.00553	-1.92205	0.01684	0.00000	0.00000
294112	0.88793	0.00346	-0.35288	0.00464	1.85931	0.01077	0.55697	0.00673	-0.70611	0.00579	-1.71017	0.00691	0.00000	0.00000
294249	1.06036	0.00464	0.78530	0.00414	1.04580	0.00527	0.29609	0.00507	-0.31856	0.00566	-1.02333	0.00752	0.00000	0.00000
299539	1.08737	0.00457	1.02412	0.00406	1.35156	0.00524	0.63409	0.00497	-0.48964	0.00647	-1.49601	0.01160	0.00000	0.00000