

APPENDIX B

IRT ITEM PARAMETERS FOR MCAS 2004-2005 TESTS

All of the tables in Appendix B use the following abbreviations in column headings:

Item = the internal reference number for each item

Type = the type of item

MC = multiple-choice

OR = open-response

SA = short-answer

E-CON = Standard English Conventions (ELA Composition)

E-DEV = Topic Development (ELA Composition)

A = discrimination C = pseudo-guessing parameter

B = difficulty D* = step parameters

*D step parameters are not applicable to Grade 3 Reading results and are not included in Table B1.

For additional information about IRT item parameters, refer to section 4.3 of this document.

Table B1: MCAS 2005 Reading, Grade 3

Item	Type	A	B	C
209146	MC	0.598	-2.650	0.072
209151	MC	0.940	-0.043	0.213
213399	MC	0.611	-1.629	0.061
209153	MC	0.720	-0.913	0.119
209154	MC	0.839	-1.553	0.033
209155	MC	1.124	-1.554	0.109
209157	MC	1.111	-0.493	0.149
209158	MC	1.125	-0.942	0.210
209159	MC	0.687	-2.003	0.042
209160	MC	0.811	-1.780	0.145
209161	MC	0.793	-1.263	0.275
209162	MC	0.991	-1.573	0.100
209163	MC	0.688	-1.250	0.085
209164	MC	0.851	-0.211	0.143
209165	MC	1.026	-2.083	0.000
209166	MC	0.535	-1.949	0.000
209167	MC	1.124	-1.350	0.119
209168	MC	0.579	-1.969	0.041
209169	MC	0.714	-1.965	0.019
209172	MC	1.163	-1.186	0.114
209173	MC	1.092	-1.531	0.091
209174	MC	0.917	-1.778	0.035
213402	MC	1.323	-1.128	0.091
209176	MC	0.523	-2.109	0.000
209177	MC	1.228	-1.043	0.104
209178	MC	0.586	-0.870	0.078
209179	MC	0.711	-0.313	0.057
209180	MC	1.094	-2.224	0.072
209181	MC	1.142	-1.912	0.082
209182	MC	0.453	-2.096	0.000
209183	MC	0.521	0.049	0.117
209184	MC	1.181	-1.951	0.053
209186	MC	1.013	-1.104	0.096
209187	MC	0.915	-1.063	0.111
209188	MC	0.667	-1.443	0.093
209189	MC	0.954	-1.520	0.115
209190	MC	0.604	-0.718	0.118
209191	MC	1.118	-1.579	0.106
209192	MC	1.112	-1.154	0.105
209193	MC	0.500	-0.861	0.044

Appendix B

Table B2: MCAS 2005 English Language Arts, Grade 4

Item	Type	A	B	C	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
220781	MC	0.466	-1.809	0.060										
220793	MC	0.881	-1.731	0.252										
220800	MC	0.916	-1.110	0.109										
220805	MC	1.107	-1.076	0.353										
220807	MC	1.020	-1.491	0.199										
220810	MC	0.817	-1.701	0.069										
220813	MC	0.656	-0.598	0.180										
220815	MC	0.613	-1.235	0.130										
220834	MC	0.792	-1.106	0.232										
220842	MC	0.817	-0.950	0.268										
220843	MC	0.748	-2.011	0.171										
220844	MC	0.829	-0.272	0.186										
220845	MC	0.884	-1.247	0.084										
220846	MC	0.972	-1.661	0.048										
220848	MC	0.893	-0.683	0.252										
220849	MC	0.881	-1.535	0.056										
220852	MC	0.799	-1.276	0.259										
220854	MC	0.691	-1.031	0.133										
225658	MC	0.555	1.644	0.155										
220858	MC	0.820	-0.504	0.394										
220864	MC	0.745	-0.865	0.183										
220868	MC	0.809	-1.876	0.219										
220869	MC	0.862	-1.039	0.289										
220871	MC	0.798	-1.861	0.174										
220880	MC	0.970	-1.032	0.221										
220881	MC	1.086	-1.596	0.203										
220883	MC	0.627	-1.165	0.107										
220885	MC	1.239	-0.392	0.155										
220887	MC	1.138	-0.617	0.217										
225662	MC	0.835	-0.503	0.161										
225666	MC	0.778	-0.720	0.107										
220904	MC	0.929	-1.398	0.090										
220908	MC	0.730	-0.851	0.168										
220909	MC	0.933	-0.750	0.147										
220912	MC	1.167	-1.095	0.268										
220913	MC	0.545	-0.108	0.176										
220818	OR	0.932	-0.164		1.455	0.697	-0.582	-1.569						
220850	OR	0.925	0.177		2.366	0.990	-0.957	-2.400						
220877	OR	0.778	0.078		2.993	0.684	-1.082	-2.595						
225669	OR	0.793	-0.295		2.703	0.769	-1.001	-2.470						
400002	E-CON	0.885	-1.771		2.588	2.060	0.551	-0.034	-2.143	-3.022				
400001	T-DEV	0.780	-0.679		4.237	3.700	2.484	1.909	0.248	-0.342	-1.751	-2.400	-3.590	-4.495

Table B3: MCAS 2005 English Language Arts, Grade 7

Item	Type	A	B	C	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
224870	MC	0.558	-1.841	0.110										
224874	MC	0.915	-1.212	0.201										
224877	MC	1.066	-1.558	0.181										
220746	MC	0.733	-1.435	0.160										
224885	MC	0.735	-1.487	0.293										
224898	MC	0.824	-1.605	0.270										
224901	MC	0.971	-1.933	0.067										
224914	MC	1.047	-1.869	0.209										
224920	MC	1.111	-1.619	0.149										
224923	MC	0.445	-1.267	0.056										
224927	MC	1.382	-0.756	0.213										
224933	MC	1.011	-1.116	0.276										
224937	MC	0.532	-1.323	0.200										
224942	MC	0.731	-1.400	0.117										
224953	MC	0.534	-0.980	0.128										
224978	MC	1.125	-0.699	0.318										
224988	MC	0.892	-1.608	0.118										
224989	MC	0.782	-1.158	0.150										
224991	MC	0.516	-1.398	0.200										
225013	MC	0.693	-0.923	0.135										
225024	MC	0.890	-1.405	0.192										
225033	MC	0.974	-0.587	0.204										
225054	MC	0.829	0.506	0.316										
225342	MC	0.607	-0.729	0.162										
225349	MC	0.485	-0.535	0.130										
225350	MC	0.700	-0.999	0.078										
225357	MC	0.865	-0.745	0.191										
225364	MC	0.859	0.028	0.150										
225368	MC	0.860	-0.102	0.132										
225387	MC	0.839	-0.702	0.141										
225391	MC	1.110	-1.280	0.139										
225397	MC	0.970	-1.597	0.147										
225401	MC	0.894	-0.399	0.167										
225402	MC	1.067	-1.250	0.160										
225564	MC	0.676	-1.499	0.034										
225566	MC	1.071	-0.646	0.146										
224907	OR	0.977	0.044		2.241	0.917	-0.770	-2.388						
224981	OR	1.130	0.091		1.901	1.037	-0.744	-2.194						
225335	OR	0.918	-0.012		2.891	0.824	-0.923	-2.791						
225395	OR	1.041	0.072		1.584	0.690	-0.441	-1.832						
300002	E-CON	1.020	-2.271		2.252	1.783	0.373	-0.128	-1.804	-2.476				
300001	T-DEV	0.937	-0.385		4.065	3.678	2.556	2.103	0.496	-0.071	-1.857	-2.492	-3.866	-4.611

Appendix B

Table B4: MCAS 2005 Mathematics, Grade 4

Item	Type	A	B	C	D1	D2	D3	D4
221796	MC	0.820	-2.292	0.080				
221797	MC	1.207	-0.743	0.211				
221798	MC	0.605	-0.047	0.415				
221801	MC	0.924	-0.228	0.209				
221803	MC	0.970	-1.099	0.199				
221808	MC	0.632	-1.983	0.200				
221811	MC	1.210	0.254	0.165				
221816	MC	0.748	-0.681	0.081				
221819	MC	0.570	-2.238	0.200				
221831	MC	0.816	-0.591	0.315				
221834	MC	0.614	0.319	0.055				
221835	MC	0.707	-0.765	0.123				
221837	MC	0.670	-1.759	0.200				
221852	MC	0.553	-1.361	0.214				
221854	MC	0.918	0.135	0.416				
221856	MC	0.943	-0.366	0.212				
221858	MC	0.809	0.091	0.427				
221867	MC	0.691	-0.234	0.067				
221872	MC	0.790	0.169	0.216				
221874	MC	0.940	0.365	0.344				
221878	MC	1.107	-0.898	0.158				
221906	MC	0.564	-1.035	0.200				
221908	MC	0.682	-0.535	0.115				
221910	MC	0.954	-0.826	0.157				
221911	MC	0.725	-0.480	0.210				
221915	MC	0.762	-0.736	0.250				
221918	MC	0.438	-0.111	0.016				
221921	MC	0.817	-0.890	0.128				
221924	MC	0.887	-0.440	0.252				
221823	SA	0.928	-0.624					
221826	SA	0.746	0.057					
221885	SA	1.103	-0.025					
221889	SA	0.676	-0.691					
221896	SA	0.409	-3.512					
221821	OR	0.822	0.064		1.023	0.522	-0.343	-1.202
221829	OR	1.043	-0.051		1.025	-0.081	-0.219	-0.725
221836	OR	0.889	-0.506		1.203	0.441	-0.403	-1.240
221881	OR	0.811	-0.835		1.231	0.344	-0.430	-1.144
221905	OR	0.880	-0.375		1.369	0.568	-0.311	-1.626

Table B5: MCAS 2005 Mathematics, Grade 6

Item	Type	A	B	C	D1	D2	D3	D4
226262	MC	0.971	-1.640	0.058				
226268	MC	0.485	-1.710	0.200				
226292	MC	1.062	0.108	0.094				
226302	MC	0.415	-0.616	0.070				
226311	MC	1.187	-0.059	0.326				
226313	MC	1.158	-0.446	0.276				
226320	MC	1.058	-0.560	0.037				
226333	MC	1.087	-0.119	0.143				
226338	MC	0.523	-1.480	0.200				
226397	MC	1.226	0.048	0.143				
226406	MC	1.041	-0.372	0.187				
226415	MC	0.930	0.241	0.160				
226419	MC	0.756	-0.838	0.097				
226421	MC	1.236	-0.929	0.150				
226431	MC	0.731	-0.674	0.016				
226433	MC	0.975	0.622	0.198				
226434	MC	0.897	0.118	0.162				
226442	MC	0.939	0.050	0.300				
226447	MC	0.367	-0.697	0.100				
226448	MC	0.876	-0.622	0.166				
226452	MC	0.966	-0.904	0.052				
226478	MC	1.015	-0.775	0.124				
226484	MC	0.965	-1.075	0.054				
226489	MC	0.992	-0.390	0.065				
226493	MC	0.681	-0.948	0.064				
226495	MC	1.651	0.980	0.220				
226501	MC	0.809	-0.304	0.170				
226505	MC	1.270	-0.742	0.123				
226509	MC	0.762	-0.456	0.223				
226372	SA	0.563	-1.118					
226377	SA	0.847	-0.661					
226460	SA	0.559	-2.215					
226467	SA	0.817	-0.641					
226471	SA	0.679	0.500					
226345	OR	1.031	0.137		1.511	0.244	-0.506	-1.249
226393	OR	1.171	0.215		1.238	0.398	-0.391	-1.245
226416	OR	1.148	-0.418		1.388	0.166	-0.392	-1.162
226457	OR	1.115	0.299		1.431	0.538	-0.720	-1.248
226474	OR	1.066	-0.153		1.848	0.434	-0.921	-1.362

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Table B6: MCAS 2005 Mathematics, Grade 8

Item	Type	A	B	C	D1	D2	D3	D4
226316	MC	1.027	-0.931	0.136				
226318	MC	1.393	-0.375	0.188				
226324	MC	0.916	-0.212	0.193				
226330	MC	1.004	0.254	0.203				
226339	MC	0.904	0.238	0.124				
226348	MC	1.328	0.678	0.377				
226365	MC	0.577	0.651	0.190				
226370	MC	0.808	-2.084	0.200				
226375	MC	1.213	-0.040	0.141				
226381	MC	0.955	-0.685	0.103				
226388	MC	1.603	0.583	0.172				
226395	MC	1.377	0.428	0.205				
226399	MC	0.670	1.463	0.278				
226403	MC	1.008	1.041	0.221				
226404	MC	0.826	-1.839	0.087				
226428	MC	1.296	-0.789	0.277				
226430	MC	1.099	0.365	0.264				
226438	MC	1.103	-0.080	0.046				
226445	MC	1.340	-0.131	0.156				
226449	MC	0.433	0.280	0.016				
226465	MC	1.515	0.568	0.372				
226470	MC	0.749	-0.062	0.137				
226472	MC	0.949	0.272	0.326				
226476	MC	0.716	0.207	0.153				
226482	MC	0.862	0.219	0.251				
226486	MC	0.659	-0.409	0.212				
226492	MC	1.051	-0.251	0.034				
226497	MC	0.423	-0.848	0.200				
226504	MC	0.884	-0.263	0.183				
226353	SA	0.831	0.972					
226357	SA	1.245	0.543					
226422	SA	1.003	-0.210					
226423	SA	0.917	0.048					
226426	SA	0.669	0.174					
226358	OR	0.907	-1.173		1.096	0.441	-0.280	-1.256
226427	OR	1.300	0.098		0.976	0.242	-0.408	-0.809
226455	OR	1.256	0.740		1.123	0.049	-0.349	-0.823
226461	OR	1.438	-0.390		0.949	0.248	-0.208	-0.989
226511	OR	1.141	0.069		0.757	0.111	-0.133	-0.736

Table B7: MCAS 2005 Science and Technology/Engineering, Grade 5

Item	Type	A	B	C	D1	D2	D3	D4
221487	MC	0.678	-1.095	0.430				
221491	MC	0.588	-2.175	0.222				
221496	MC	0.888	-0.021	0.095				
221500	MC	0.317	-3.510	0.200				
221508	MC	0.781	-2.130	0.119				
221512	MC	0.726	-0.693	0.095				
221517	MC	0.857	-1.030	0.236				
221519	MC	0.573	-2.796	0.200				
221521	MC	0.733	-2.091	0.074				
221524	MC	0.949	0.532	0.394				
221530	MC	0.782	0.523	0.177				
221536	MC	0.762	-1.717	0.081				
221541	MC	0.719	-1.633	0.144				
221546	MC	0.490	-0.905	0.185				
221552	MC	0.606	0.199	0.131				
234101	MC	0.289	-0.942	0.159				
221558	MC	0.686	-2.429	0.080				
221589	MC	0.594	-1.526	0.099				
221594	MC	0.876	-2.184	0.151				
221596	MC	0.516	0.436	0.131				
221599	MC	0.682	-0.895	0.339				
221601	MC	0.732	-2.139	0.173				
221603	MC	0.558	-0.425	0.123				
221609	MC	1.109	0.108	0.265				
221611	MC	1.085	-0.769	0.374				
221612	MC	0.713	-0.393	0.304				
221614	MC	0.916	0.097	0.330				
221617	MC	0.570	-1.592	0.255				
221632	MC	0.724	-2.071	0.238				
221637	MC	0.788	0.718	0.311				
221634	MC	0.762	-2.153	0.093				
221638	MC	0.714	-1.578	0.031				
221643	MC	0.746	-1.662	0.420				
221647	MC	0.488	0.439	0.100				
221575	OR	0.511	-2.003		2.569	1.419	-0.308	-3.680
221586	OR	0.806	0.540		1.637	0.450	-0.576	-1.511
221650	OR	0.755	0.377		2.403	0.434	-0.901	-1.936
221651	OR	0.467	-1.443		3.731	1.324	-1.261	-3.795
221659	OR	0.621	-1.549		1.142	0.416	-0.104	-1.454

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Table B8: MCAS 2005 Science and Technology/Engineering, Grade 8

Item	Type	A	B	C	D1	D2	D3	D4
226252	MC	0.390	0.358	0.358				
226253	MC	0.495	-0.865	0.121				
226255	MC	0.930	-1.015	0.128				
226256	MC	0.714	0.026	0.189				
226258	MC	0.458	-0.657	0.076				
226260	MC	0.682	-0.733	0.137				
226264	MC	0.619	-0.890	0.096				
226267	MC	0.411	-2.687	0.200				
226273	MC	0.690	1.285	0.335				
226276	MC	0.635	1.363	0.256				
226279	MC	1.122	-0.695	0.222				
226282	MC	0.617	0.211	0.194				
226287	MC	0.555	1.730	0.400				
226297	MC	1.318	0.811	0.180				
226299	MC	0.928	0.959	0.245				
226304	MC	0.451	-2.019	0.200				
226307	MC	0.881	-0.153	0.116				
226315	MC	0.890	0.443	0.346				
226319	MC	0.912	-0.938	0.222				
226322	MC	0.587	-2.103	0.108				
226327	MC	0.672	-0.808	0.085				
226331	MC	0.458	-0.985	0.200				
226335	MC	0.745	-1.909	0.073				
226343	MC	1.004	-1.533	0.029				
226347	MC	0.809	-0.067	0.157				
226350	MC	0.702	-0.157	0.130				
226351	MC	0.641	-0.977	0.046				
226362	MC	0.663	0.785	0.143				
226366	MC	0.695	-0.923	0.041				
226373	MC	0.618	0.036	0.118				
226376	MC	0.641	-0.581	0.053				
226383	MC	0.727	-1.618	0.200				
226387	MC	0.706	-1.099	0.119				
226392	MC	0.848	-0.148	0.348				
226309	OR	1.135	0.372		0.760	0.123	-0.171	-0.713
226312	OR	0.853	0.022		2.621	1.169	-0.924	-2.866
226398	OR	1.099	0.667		1.431	0.489	-0.511	-1.409
226400	OR	1.153	0.136		0.957	0.317	-0.230	-1.044
226401	OR	0.887	0.537		1.527	0.562	-0.551	-1.538

Table B9: MCAS 2005 English Language Arts, Grade 10

Item	Classical		Item Response Theory		
	Diff.	Disc.	A	B	C
MC-1	0.95	0.32	1.197	-1.000	0.256
MC-2	0.87	0.42	0.876	-0.540	0.225
MC-3	0.76	0.15	0.352	-0.579	0.239
MC-4	0.83	0.51	1.504	-0.144	0.209
MC-5	0.65	0.48	1.159	0.607	0.150
MC-6	0.86	0.43	1.241	-0.402	0.202
MC-7	0.74	0.36	1.212	0.300	0.236
MC-8	0.71	0.36	0.861	0.398	0.172
MC-10	0.63	0.25	0.477	0.463	0.239
MC-11	0.83	0.36	0.769	-0.244	0.260
MC-12	0.84	0.37	0.975	-0.275	0.266
MC-13	0.84	0.37	0.740	-0.304	0.207
MC-14	0.65	0.44	1.085	0.467	0.226
MC-15	0.86	0.35	0.756	-0.882	0.217
MC-16	0.81	0.32	0.591	-1.209	0.172
MC-17	0.80	0.42	0.937	-0.330	0.129
MC-19	0.80	0.38	1.046	-0.451	0.263
MC-20	0.84	0.29	0.866	-0.983	0.252
MC-21	0.87	0.50	1.426	-0.312	0.131
MC-22	0.77	0.47	1.139	0.134	0.123
MC-23	0.60	0.42	0.785	0.334	0.137
MC-24	0.76	0.35	0.665	0.010	0.235
MC-25	0.80	0.49	1.553	-0.087	0.196
MC-26	0.84	0.37	0.810	-0.041	0.239
MC-28	0.90	0.25	0.718	-1.103	0.230
MC-29	0.92	0.30	0.899	-1.165	0.259
MC-30	0.80	0.34	0.833	-0.059	0.205
MC-31	0.84	0.43	1.048	-0.364	0.202
MC-32	0.82	0.41	1.018	-0.318	0.232
MC-33	0.94	0.34	1.148	-0.828	0.244
MC-34	0.89	0.34	1.125	-0.592	0.227
MC-35	0.79	0.42	1.183	-0.006	0.169
MC-37	0.85	0.48	1.429	-0.263	0.175
MC-38	0.83	0.28	0.891	-0.669	0.240
MC-39	0.64	0.32	0.920	0.605	0.337
MC-40	0.79	0.45	1.545	0.238	0.278

Item	Classical		Item Response Theory											
	Diff.	Disc.	A	B	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
OR-9	2.37	0.47	1.110	0.291	1.656	0.569	-0.558	-1.666						
OR-18	2.13	0.61	0.993	0.300	2.031	0.567	-0.654	-1.945						
OR-27	2.73	0.67	1.226	0.201	1.585	0.735	-0.573	-1.747						
OR-36	2.18	0.62	1.123	0.274	1.53	0.59	-0.537	-1.583						
T-DEV	8.13	0.48	0.491	-1.214	6.098	5.122	3.266	2.340	1.047	-0.122	-2.343	-3.706	-4.957	-6.745
E-CON	7.33	0.44	0.527	-3.709	3.110	2.203	0.355	-0.553	-1.850	-3.265				

Appendix B

Table B10: MCAS 2005 Mathematics, Grade 10

Item	Classical		Item Response Theory		
	Diff.	Disc.	A	B	C
MC-1	0.91	0.32	0.961	-1.197	0.201
MC-2	0.69	0.45	1.262	0.357	0.297
MC-3	0.76	0.41	1.095	0.172	0.321
MC-4	0.85	0.40	1.116	-0.251	0.313
MC-5	0.57	0.38	1.724	1.044	0.308
MC-6	0.59	0.35	1.259	1.058	0.369
MC-7	0.54	0.31	1.035	1.167	0.294
MC-8	0.73	0.30	0.750	0.751	0.483
MC-9	0.85	0.26	0.449	-0.899	0.227
MC-10	0.55	0.56	1.329	0.636	0.112
MC-11	0.68	0.21	0.665	1.186	0.500
MC-12	0.57	0.52	1.407	0.638	0.257
MC-13	0.62	0.49	1.603	0.784	0.254
MC-14	0.88	0.43	1.091	-0.600	0.267
MC-22	0.88	0.36	1.037	-0.671	0.176
MC-23	0.76	0.31	0.751	0.023	0.199
MC-24	0.84	0.50	1.186	-0.206	0.201
MC-25	0.73	0.48	1.641	0.503	0.377
MC-26	0.51	0.53	1.748	0.807	0.241
MC-27	0.55	0.51	1.154	0.688	0.102
MC-28	0.79	0.33	0.793	0.181	0.280
MC-29	0.70	0.48	0.967	0.106	0.130
MC-30	0.70	0.41	0.957	0.659	0.330
MC-32	0.78	0.43	1.550	0.496	0.226
MC-33	0.84	0.42	1.129	-0.415	0.272
MC-34	0.57	0.47	1.851	0.687	0.302
MC-35	0.67	0.52	1.287	0.318	0.136
MC-36	0.76	0.43	0.821	-0.004	0.201
MC-37	0.69	0.43	1.244	0.646	0.356
MC-38	0.71	0.44	1.801	0.795	0.396
MC-39	0.56	0.40	1.352	0.939	0.299
MC-40	0.75	0.56	1.835	0.288	0.321
SA-15	0.67	0.48	0.738	-0.063	
SA-16	0.66	0.62	1.330	0.058	
SA-18	0.67	0.61	1.224	0.185	
SA-19	0.58	0.60	1.265	0.426	

Item Type	Classical		Item Response Theory					
	Diff.	Disc.	A	B	D1	D2	D3	D4
OR-17	2.04	0.76	1.339	0.591	1.026	0.150	-0.475	-0.701
OR-20	2.31	0.81	1.629	0.459	0.548	0.065	-0.091	-0.522
OR-21	2.05	0.79	1.576	0.678	0.738	0.311	-0.410	-0.639
OR-31	1.96	0.77	1.585	0.740	0.932	-0.004	-0.311	-0.617
OR-41	1.95	0.76	1.472	0.622	0.563	0.215	-0.240	-0.538
OR-42	2.44	0.78	1.394	0.280	1.032	0.180	-0.272	-0.940