

Appendix L

RELATIVE POSITION STUDY (GRADES 3–8)

Table L-1. 2010 MCAS: Relative Position Study Results – English Language Arts Grade 3

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
220171	0.0663	1.0696	9	12	3	1
220175	-0.2366	0.7109	10	13	3	1
220181	-0.5282	-1.2651	11	14	3	1
220185	-0.7847	-0.5527	12	15	3	1
220194	-0.8482	1.2934	13	16	3	1
220196	-1.1388	-1.3287	14	17	3	1
220197	0.6798	-0.0239	15	19	4	1
220199	-0.8187	-0.4035	15	18	3	1
220200	2.1852	0.9493	12	21	9	1
220220	2.6024	0.7362	16	20	4	1
220255	1.0412	0.7944	17	22	5	1
231813	-0.7269	-1.1771	13	17	4	1
231816	1.9916	1.8955	14	18	4	1
231821	-0.6600	0.3408	14	19	5	1
231823	1.5488	0.6609	16	21	5	1
231828	0.1448	1.6337	15	20	5	1
231830	-1.2429	2.6173	17	22	5	1
234878	0.1861	-0.7670	11	14	3	1
234879	-0.3232	-0.9958	9	12	3	1
234880	0.2917	0.7345	12	15	3	1
234882	0.8998	-0.9891	10	13	3	1
269970	1.3392	-0.6433	5	1	-4	1
269977	-1.0564	-0.9174	6	3	-3	1
269991	0.1254	-0.9144	7	5	-2	1
269997	-0.4797	-1.1173	8	6	-2	1
270003	-0.2401	-0.6684	10	8	-2	1
270025	-1.1293	-1.2527	11	9	-2	1
270033	-0.4242	-0.9809	12	10	-2	1
270039	-0.1863	0.4064	13	11	-2	1
270147	-0.6094	0.8041	9	1	-8	0
270149	0.5900	-0.1140	10	2	-8	0
270156	0.1733	0.0860	11	4	-7	0
270166	1.3392	0.6330	10	3	-7	0
270168	0.1297	-0.7970	12	5	-7	0
270176	-0.8482	-0.3306	14	6	-8	0
270185	-1.0894	1.5689	12	7	-5	0
270191	1.1348	1.3820	14	8	-6	0
270198	0.0174	0.4489	16	10	-6	0
270201	-0.7497	-0.6065	15	9	-6	0
272193	0.3735	-0.4047	9	7	-2	1
276819	-0.7030	-0.2118	13	19	6	0
276825	-0.8264	-0.9932	15	20	5	0
276829	-0.5282	-0.7364	14	21	7	0
276831	0.8277	-0.8451	16	22	6	0
276837	-0.6600	-0.8612	16	23	7	0
276868	-0.7269	-0.8923	9	23	14	0

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
276876	-1.1293	0.3282	9	25	16	0
276879	-1.1197	-0.4890	10	26	16	0
276884	2.3442	2.0036	12	27	15	0
279400	-0.2177	0.1814	11	24	13	0

Table L-2. 2010 MCAS: Relative Position Study Results – English Language Arts Grade 4

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
227630	-1.0159	-0.5238	9	12	3	1
227631	0.0370	0.1150	10	13	3	1
227635	0.7207	0.1763	10	14	4	1
227641	0.0566	-0.1843	12	15	3	1
227651	0.0898	0.7163	14	17	3	1
227653	-0.7498	-0.6466	15	18	3	1
227654	-0.6754	-1.1689	14	20	6	1
227656	0.0413	0.7049	16	21	5	1
227657	-0.8477	-0.4501	13	16	3	1
227660	-0.5490	-1.0618	17	22	5	1
228215	-1.2067	-0.8123	14	12	-2	1
228225	0.1160	-1.2037	17	15	-2	1
228290	-0.2833	1.0891	16	14	-2	1
232874	0.1701	0.0798	15	17	2	1
232875	-1.0662	-1.0964	14	18	4	1
232876	0.0356	0.2365	15	19	4	1
232883	-0.4795	-0.2980	16	20	4	1
232887	-0.1914	-1.1304	17	21	4	1
232889	-0.1005	0.2345	18	22	4	1
241003	-0.5093	0.0182	14	19	5	1
244112	-0.8136	-0.1100	15	13	-2	1
255565	1.1087	1.7814	9	8	-1	0
255567	-0.2994	-0.4486	9	9	0	0
255583	-0.8798	-1.0028	10	10	0	0
255585	1.0827	2.0287	11	11	0	0
255586	-0.8677	-0.8327	11	12	1	0
255592	-1.1448	-0.8749	12	13	1	0
255596	-0.7489	3.1032	13	14	1	0
255608	0.4102	-0.0080	14	15	1	0
255612	0.2940	0.1917	15	16	1	0
255619	-0.4795	-0.6589	16	17	1	0
255620	-0.8577	-0.8759	17	18	1	0
256081	0.0413	0.1565	9	12	3	1
256084	-0.7211	-0.3676	10	13	3	1
256149	-0.4177	0.2680	12	15	3	1
256150	0.0356	-0.2394	12	17	5	1
256164	-0.3826	0.0257	13	16	3	1
256173	-0.4922	-0.2794	14	18	4	1
256184	-0.2994	-0.5852	15	19	4	1

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
256192	0.0370	0.1464	16	21	5	1
256199	0.6919	0.5626	15	20	5	1
256212	-1.0737	-0.7644	17	22	5	1
256807	0.6190	-0.7307	11	14	3	1
268943	0.0991	-0.9792	14	19	5	0
268948	0.0566	-0.1554	16	20	4	0
268949	0.0370	-1.2176	17	21	4	0
268951	-0.7458	-0.7652	17	22	5	0
268952	-0.2605	-0.9104	18	23	5	0
268954	1.1127	0.8231	19	24	5	0
277063	2.2805	0.9111	9	1	-8	0
277072	4.8232	1.6919	11	2	-9	0
277077	0.8526	0.6523	12	4	-8	0
277081	1.0256	1.1225	11	3	-8	0
277083	1.2029	-0.4726	14	5	-9	0
277086	-0.6898	0.7242	12	6	-6	0
277105	1.7714	3.2950	17	7	-10	0

Table L-3. 2010 MCAS: Relative Position Study Results – English Language Arts Grade 5

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
205133	-0.3013	-0.7196	9	11	2	1
205134	0.4473	-0.1938	16	20	4	1
205136	0.4964	-0.9461	10	12	2	1
205139	-0.1189	0.9870	11	13	2	1
205143	-0.9984	0.4435	12	14	2	1
205145	-0.9684	0.0307	5	15	10	1
205146	-0.0304	0.3581	5	16	11	1
205147	-1.0881	-0.9886	13	17	4	1
205148	0.7002	2.3351	14	18	4	1
205153	-0.6148	-0.6712	17	21	4	1
208719	-0.9751	-0.1978	1	11	10	1
208721	0.4630	-0.7802	9	12	3	1
208722	-0.6552	-0.2375	10	14	4	1
208724	4.2708	3.4267	2	13	11	1
208726	-1.0428	-0.0935	11	15	4	1
208735	-0.4704	-0.0192	12	16	4	1
208738	-0.8967	0.0205	13	17	4	1
208741	0.1906	-0.0890	14	18	4	1
208743	-0.1309	-0.3368	15	19	4	1
208744	-0.7703	-1.0302	16	20	4	1
208765	-0.3978	-0.3045	17	21	4	1
224840	-0.7053	-1.1178	14	16	2	1
224843	0.1497	-0.7175	14	17	3	1
224846	-0.6254	-0.5476	15	18	3	1
224854	-0.9984	-1.1513	17	20	3	1
224858	-0.5024	0.7416	16	19	3	1

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
224867	-0.2715	-0.5386	18	21	3	1
250901	-0.1381	-0.7971	15	19	4	1
266157	-1.0881	-1.0832	10	11	1	1
266158	-0.7703	-1.0592	11	12	1	1
266159	-0.8903	-0.8155	12	13	1	1
266166	0.6921	1.4978	17	14	-3	1
266171	0.2357	0.1103	13	15	2	1
276049	0.4776	-0.9034	10	9	-1	0
276051	-0.1381	0.0888	11	10	-1	0
276119	1.2651	2.2860	12	12	0	0
276120	-0.3684	-0.6690	13	13	0	0
276124	1.0307	0.8299	14	14	0	0
276125	0.8283	0.7243	15	15	0	0
276127	-0.8327	0.5656	16	17	1	0
276128	-0.2675	0.7738	16	16	0	0
276129	-1.1297	-1.0143	17	18	1	0
276319	0.9820	0.9846	9	1	-8	0
276325	2.1511	-0.2970	12	4	-8	0
276334	-0.7972	-0.6514	14	5	-9	0
276341	1.0481	0.9630	15	6	-9	0
276348	1.4421	1.7324	17	7	-10	0
280141	1.1444	0.9632	14	22	8	0
280143	0.5287	-0.8262	15	23	8	0
280144	0.5606	-0.5837	14	24	10	0
280145	-0.5545	-0.5515	16	25	9	0
280149	-0.7500	-0.7497	17	26	9	0
280150	1.1832	0.8191	16	27	11	0

Table L-4. 2010 MCAS: Relative Position Study Results – English Language Arts Grade 6

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
203337	0.1599	0.3057	14	17	3	1
203340	-1.1120	0.2094	15	18	3	1
203343	0.5520	-1.1267	12	19	7	1
203344	2.9632	1.4176	12	20	8	1
203348	-0.1970	-1.0765	17	21	4	1
203352	2.1010	0.5657	14	22	8	1
207439	-1.0869	0.4027	10	12	2	1
207442	0.9013	2.1617	2	13	11	1
207446	-0.0968	0.3773	13	15	2	1
207448	-0.0735	-0.7889	11	14	3	1
207449	-1.0645	-1.4444	14	16	2	1
207450	-0.5177	0.2211	12	15	3	1
207455	-0.7958	-1.5317	15	17	2	1
207464	-0.5398	-0.2592	14	17	3	1
207473	-0.5923	0.5967	13	16	3	1
207479	-0.1614	-0.0174	15	18	3	1

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
207484	-1.1329	0.0854	16	19	3	1
207497	0.2300	1.7742	17	20	3	1
207499	2.3480	-0.8214	7	20	13	1
207502	0.8118	0.1501	7	21	14	1
207508	-0.6948	-0.3415	18	22	4	1
213331	-0.0715	-0.4904	8	21	13	1
245080	-0.7225	-1.4059	10	12	2	1
245081	-0.4193	-0.7229	11	13	2	1
245083	-0.3663	-0.4716	12	14	2	1
245085	-0.6557	-1.4003	18	22	4	1
250746	-0.1704	-1.1397	16	18	2	1
250747	-0.6640	-0.0897	17	19	2	1
257352	-0.2559	0.2019	10	12	2	1
257357	0.0859	-1.0962	11	13	2	1
257359	-0.6463	-0.9997	13	14	1	1
257363	-1.0651	0.2808	12	15	3	1
257375	-0.5291	-0.3349	13	16	3	1
257665	2.0015	2.0378	10	1	-9	0
257668	0.0516	0.9700	10	2	-8	0
257669	1.4099	0.3278	11	3	-8	0
257676	0.6363	-0.0621	14	4	-10	0
257680	1.9499	1.1570	15	5	-10	0
257686	0.9073	-0.0117	17	6	-11	0
257689	2.3882	2.3639	18	7	-11	0
277119	-0.3406	0.2322	10	8	-2	0
277121	0.3622	-0.4809	11	9	-2	0
277124	0.2322	1.1650	11	10	-1	0
277127	-0.6369	1.0589	12	11	-1	0
277133	-0.4905	-1.2396	13	12	-1	0
277138	-0.6523	-1.0710	14	13	-1	0
277142	-1.0870	1.0850	14	14	0	0
277144	-1.0870	0.5697	15	15	0	0
277147	0.8029	-1.4835	16	16	0	0
277155	-0.4076	-1.2718	17	17	0	0
277172	-0.0735	0.3299	18	18	0	0
280348	-0.5216	0.9510	14	24	10	0
280351	-0.7124	-0.7698	15	25	10	0
280359	-0.5680	1.1866	17	26	9	0
280360	-0.6862	-0.2361	17	27	10	0

Table L-5. 2010 MCAS: Relative Position Study Results – English Language Arts Grade 7

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
223850	-0.7544	-0.6580	10	11	1	1
223854	0.5783	-0.2944	11	12	1	1
223890	0.7000	0.8421	11	13	2	1
223894	-0.7144	-0.7460	12	14	2	1
223900	-1.2105	-0.1543	12	19	7	1
223914	-0.0406	0.7060	13	15	2	1
223917	1.0052	-1.0962	15	17	2	1
223921	0.6439	-0.5158	14	16	2	1
223927	-0.4206	-0.2440	16	18	2	1
223932	-0.7883	-0.5126	17	20	3	1
223937	0.6150	-0.4847	18	21	3	1
224998	1.6313	0.0616	10	13	3	1
224998	0.0288	0.0616	9	13	4	1
224999	-0.8626	-0.9158	11	14	3	1
225000	1.1477	-0.4975	12	15	3	1
225002	-1.2303	-0.7321	12	12	0	1
225004	-0.4745	-0.8682	14	17	3	1
225008	-0.0452	0.8026	15	18	3	1
225044	-0.4954	-1.1708	10	11	1	1
225050	0.8710	0.8998	13	16	3	1
225051	-0.2279	-0.4457	16	19	3	1
225055	-0.8367	-0.7866	18	21	3	1
225545	-0.9395	-0.6802	16	14	-2	1
225547	-0.9834	0.6934	16	13	-3	1
225550	-1.0964	0.0936	15	12	-3	1
225593	-0.4745	-1.2215	14	11	-3	1
225596	-0.9579	-0.7329	17	15	-2	1
233976	-0.7144	-0.2010	14	16	2	1
233987	-0.9579	-0.8654	17	20	3	1
233993	0.5477	-0.0121	15	17	2	1
233999	-0.0855	-0.6056	16	19	3	1
234003	-0.9980	-0.9476	16	18	2	1
234009	-1.2374	-1.2706	18	21	3	1
266553	1.0067	1.3424	9	22	13	0
266557	2.5622	0.5249	13	26	13	0
266558	3.4531	2.7827	10	23	13	0
266565	1.9438	2.2009	12	25	13	0
266568	0.0288	2.3331	11	24	13	0
273055	-0.4206	-0.6324	17	20	3	1
279203	-0.0978	-0.3860	10	1	-9	0
279206	2.1424	0.8294	10	2	-8	0
279211	0.8498	2.6043	13	3	-10	0
279213	0.4847	-0.2739	12	4	-8	0
279215	0.2049	-0.6299	14	5	-9	0
279217	-0.4206	-0.4678	15	6	-9	0
279219	0.7000	-0.3969	16	7	-9	0
279229	0.2187	0.8343	18	8	-10	0
280268	0.0877	1.0887	10	9	-1	0

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
280270	-0.4803	0.1923	13	11	-2	0
280271	-0.6918	-1.2572	12	12	0	0
280272	0.2055	0.3941	11	10	-1	0
280275	-0.9834	0.0394	14	13	-1	0
280277	-0.7144	0.0012	15	14	-1	0
280279	0.8708	1.8674	16	16	0	0
280280	-0.9395	0.2713	15	15	0	0
280281	-0.0663	-1.0782	16	17	1	0
280287	-0.4929	1.0744	17	18	1	0
280290	-0.6739	-0.6981	18	19	1	0

Table L-6. 2010 MCAS: Relative Position Study Results – English Language Arts Grade 8

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
207096	-0.7373	0.3741	15	16	1	1
207099	-0.9858	1.2556	16	12	-4	1
207101	0.6106	-0.5758	17	13	-4	1
207104	-0.2601	-1.0326	12	14	2	1
207118	-0.6941	0.1789	18	15	-3	1
207159	-0.7363	-0.7152	15	17	2	1
207176	0.5270	0.4598	16	18	2	1
207180	-0.7765	-0.3800	17	19	2	1
207185	-0.2946	0.0329	18	20	2	1
207190	1.1515	-1.1483	12	21	9	1
207193	-0.5801	-0.4003	19	22	3	1
207589	0.5312	-0.8312	10	12	2	1
207592	-0.7373	-0.6011	17	20	3	1
207595	-0.1697	-1.0020	11	13	2	1
207598	-0.0961	1.1953	12	14	2	1
207599	-0.6165	-0.1645	13	15	2	1
207600	-0.3619	-0.3485	14	16	2	1
207601	-0.4840	-1.1699	4	17	13	1
207609	2.4517	1.1107	8	21	13	1
207618	-1.0817	0.0043	15	18	3	1
207624	-0.5390	-0.3444	16	19	3	1
207639	-1.0086	-0.5042	18	22	4	1
227758	-0.4656	0.4175	10	12	2	1
227759	-0.8191	-1.1532	11	13	2	1
227760	-0.7431	-1.2063	17	20	3	1
227764	-0.9538	-0.4592	12	14	2	1
227769	0.4263	-1.0708	13	15	2	1
227773	-0.6982	-0.3308	14	16	2	1
227774	-0.3825	-0.5130	15	17	2	1
227777	-0.2962	-0.8706	16	18	2	1
227779	-1.1260	0.4138	18	21	3	1
227781	-0.3556	-0.3309	17	19	2	1
227783	-1.0742	-0.6448	18	22	4	1

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
266360	1.0687	1.5375	10	23	13	0
266364	0.7946	-0.3442	12	24	12	0
266368	-0.0763	-1.0843	15	25	10	0
266373	0.5424	0.2177	13	26	13	0
266375	3.0630	2.2086	14	27	13	0
271604	2.0075	0.8314	15	2	-13	0
271606	-0.7340	-1.1600	16	4	-12	0
271609	-0.7757	-0.7961	17	5	-12	0
271610	0.7508	-0.9023	13	1	-12	0
271611	2.1825	0.9854	16	3	-13	0
271618	1.7341	1.6377	1	6	5	0
271621	0.8894	0.5324	2	7	5	0
275961	-0.7162	1.5773	10	8	-2	0
275968	0.6285	3.2075	12	10	-2	0
275974	0.1044	-0.1482	13	13	0	0
275976	0.3776	0.5343	14	15	1	0
275978	-0.3825	0.5265	15	11	-4	0
275980	1.7254	1.9450	11	9	-2	0
275981	-0.5772	-1.1860	16	16	0	0
275983	1.0620	0.8569	14	14	0	0
275995	-1.1712	-1.1499	17	17	0	0
276022	-0.3444	0.3058	18	18	0	0
276464	-0.7775	0.2214	13	12	-1	0

Table L-7. 2010 MCAS: Relative Position Study Results – Mathematics Grade 3

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
218523	0.0534	-0.3636	20	6	-14	1
207010	-0.2439	0.1043	18	6	-12	1
253624	-0.5884	0.3979	18	6	-12	1
203643	-1.1207	0.7426	17	11	-6	1
203723	0.0887	-0.2595	20	14	-6	1
218517	3.6686	2.3410	20	14	-6	1
227103	-0.6086	-0.7159	17	11	-6	1
227295	-0.6712	-0.7784	17	11	-6	1
202988	0.4759	0.1564	19	14	-5	1
203539	-0.3119	0.4800	19	14	-5	1
252919	1.8820	1.3263	19	14	-5	1
281223	0.0688	-0.6488	19	14	-5	1
202961	-1.1063	-0.4411	18	14	-4	1
207776	-0.4377	-0.7499	18	14	-4	1
227240	-0.9344	0.0639	18	14	-4	1
206961	0.6661	-0.8357	10	9	-1	1
261853	-0.7623	-0.8340	21	20	-1	1
264565	-0.2790	-0.3002	8	7	-1	1

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
218441	-0.5554	-0.3595	2	2	0	1
260976	-1.0144	-0.6677	5	5	0	1
207152	-0.8285	-0.8638	16	17	1	1
208002	0.1653	-0.8942	14	15	1	1
218572	-0.2080	-0.9164	14	15	1	1
260987	0.0118	-0.9961	13	14	1	1
206993	0.0091	-0.3527	11	14	3	1
261012	-0.3348	-0.3817	12	16	4	1
252964	0.6151	2.0046	18	5	-13	0
227289	-0.3348	-0.3474	17	7	-10	0
281207	0.0849	-0.0251	18	8	-10	0
225833	-0.2739	0.2992	19	11	-8	0
281211	-0.7055	-0.5049	19	12	-7	0
253701	0.8539	2.9803	19	13	-6	0
252969	-0.5670	-0.4037	17	12	-5	0
260547	-0.9955	-0.9157	19	17	-2	0
202994	0.2901	-0.2302	18	18	0	0
281096	-0.1294	-0.2150	19	19	0	0
253644	1.8788	0.7488	18	19	1	0
261029	2.1991	2.3560	14	20	6	0

Table L-8. 2010 MCAS: Relative Position Study Results – Mathematics Grade 4

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
221974	0.3205	-0.5559	23	6	-17	1
222082	0.5451	0.5557	23	6	-17	1
250328	-0.7062	-0.1171	23	6	-17	1
228713	0.9379	0.1100	21	6	-15	1
222051	-1.1994	0.0808	20	6	-14	1
218887	0.5287	-0.9749	19	6	-13	1
221903	-0.7011	-0.3402	19	6	-13	1
218909	-1.1934	0.3054	18	6	-12	1
221984	-0.4248	-0.9522	23	17	-6	1
226150	0.4527	-0.2150	23	17	-6	1
227323	-0.9497	0.4854	24	18	-6	1
227512	0.9379	-0.6671	23	17	-6	1
247506	-0.6996	-0.6642	23	17	-6	1
258258	-0.9031	-0.9749	24	18	-6	1
227518	-0.1378	-0.1989	21	17	-4	1
250443	2.3081	1.0462	21	17	-4	1
247587	-0.6087	-0.7752	20	17	-3	1
221898	0.0121	0.5057	13	11	-2	1
221969	0.0121	0.7301	21	19	-2	1
222062	-0.8460	-0.0284	13	11	-2	1
228815	1.4856	0.9019	13	11	-2	1
222095	-1.0723	0.2426	18	17	-1	1
258223	-0.8763	-0.3122	24	23	-1	1

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
218874	0.3446	-0.2095	1	1	0	1
218910	-0.3065	-0.2058	16	16	0	1
247515	-0.7975	-1.0008	4	4	0	1
258226	0.0213	-0.4039	2	2	0	1
258233	-0.2523	-0.9576	16	16	0	1
258294	0.5839	-0.9937	1	1	0	1
258178	1.3673	-0.3646	5	6	1	1
258214	0.6238	0.1265	20	21	1	1
258281	-1.1940	0.0799	7	8	1	1
247705	-0.8294	-0.9141	23	2	-21	0
272240	-0.7210	-0.5235	23	4	-19	0
227380	3.1408	3.8239	21	3	-18	0
218990	1.9268	-0.8091	20	5	-15	0
247582	-0.1673	-0.4390	19	5	-14	0
272162	-0.4441	-0.9669	20	9	-11	0
258251	0.0213	1.5657	20	15	-5	0
221875	-0.0416	2.0769	21	17	-4	0
227577	-0.8632	-0.9034	23	20	-3	0
250374	-1.0121	-0.6524	22	19	-3	0
219077	2.3175	1.1054	13	11	-2	0
247526	-0.0416	2.9665	23	21	-2	0
250382	0.5183	0.4626	24	23	-1	0
258229	-0.9925	-0.2751	13	13	0	0
272125	0.1683	-0.0387	20	20	0	0
281562	-0.2343	-0.7254	13	13	0	0
218902	-0.3590	-0.0115	18	22	4	0

Table L-9. 2010 MCAS: Relative Position Study Results – Mathematics Grade 5

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
260821	0.9498	3.0969	23	6	-17	1
273044	-0.2857	0.6950	23	6	-17	1
204785	0.1560	0.4707	22	6	-16	1
273050	-0.9874	-0.2004	20	6	-14	1
204708	1.4880	0.9082	19	6	-13	1
204842	0.6614	-1.0505	18	6	-12	1
221120	0.0836	3.4171	18	6	-12	1
260681	0.4225	-0.2663	18	6	-12	1
198678	0.0641	0.6811	24	18	-6	1
198686	-0.9073	0.4281	24	18	-6	1
198687	-1.4468	-0.9994	23	17	-6	1
249075	-0.8643	-0.9037	23	17	-6	1
260837	1.8657	0.1254	23	17	-6	1
272911	1.6557	-0.0167	23	17	-6	1
198672	-0.4164	0.2785	20	17	-3	1
221523	0.0877	1.2844	20	17	-3	1
204843	1.0284	1.5656	13	11	-2	1

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
204915	0.9138	-0.7709	13	11	-2	1
206930	-1.1105	-1.0132	19	17	-2	1
207514	0.5827	-0.0992	13	11	-2	1
272892	2.1350	0.7199	19	17	-2	1
261228	-1.2051	-0.8414	24	23	-1	1
249000	-0.4146	-0.4212	16	16	0	1
260696	2.1965	1.4527	8	8	0	1
260705	-1.1010	-1.1094	12	12	0	1
261594	1.0609	-0.9422	15	15	0	1
204712	0.1190	-0.3037	7	8	1	1
248998	0.1001	-0.2808	21	22	1	1
261578	0.5982	-0.5538	9	10	1	1
261591	-0.4475	-0.6456	5	6	1	1
261598	-0.4549	-0.0083	12	13	1	1
273788	1.1394	-0.3548	23	4	-19	0
272773	-0.5979	-0.2260	22	5	-17	0
273791	-0.1940	-0.8649	20	3	-17	0
272771	-1.2976	-0.1649	23	7	-16	0
272780	-1.4169	-0.9169	19	3	-16	0
261580	0.5752	0.7236	19	5	-14	0
272786	-0.1146	-0.5920	22	9	-13	0
272893	-1.3599	1.1587	19	7	-12	0
249010	-0.8336	-0.6191	24	14	-10	0
273787	-0.5834	-0.6061	22	18	-4	0
248878	0.3534	-0.4959	13	10	-3	0
260839	-1.1063	-1.1339	13	11	-2	0
272891	-1.3305	-1.0567	23	21	-2	0
260823	1.3969	0.5734	21	20	-1	0
272898	-0.3569	0.2445	23	22	-1	0
272776	-0.8353	-0.5762	21	21	0	0
272913	0.0343	0.2106	19	19	0	0

Table L-10. 2010 MCAS: Relative Position Study Results – Mathematics Grade 6

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
227740	-0.5217	-0.7552	23	6	-17	1
272358	-0.4908	-0.8675	23	6	-17	1
229927	0.0716	-0.9918	22	6	-16	1
227737	-0.6020	0.7325	20	6	-14	1
251467	0.7678	-0.7828	20	6	-14	1
227720	-0.9100	0.5038	19	6	-13	1
226187	-0.9154	-0.7046	18	6	-12	1
251387	-0.3386	1.0257	18	6	-12	1
227497	-0.1681	1.7170	23	17	-6	1
229917	0.3974	-0.4430	23	17	-6	1
229936	1.2105	-0.5034	24	18	-6	1
251347	-1.0398	-0.5222	24	18	-6	1

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
272300	2.5027	0.8504	21	17	-4	1
223163	-0.3989	1.0152	20	17	-3	1
273824	0.5376	-0.8154	20	17	-3	1
217507	-0.6206	-0.4017	19	17	-2	1
227450	-0.0222	4.4998	19	17	-2	1
227709	-0.9265	-0.4194	19	17	-2	1
251345	1.9042	2.1335	13	11	-2	1
251575	0.8063	0.7480	13	11	-2	1
272306	-0.7391	-0.3465	13	11	-2	1
251289	1.0937	0.3900	15	15	0	1
264309	-0.8931	-0.3415	14	14	0	1
265892	-0.1948	-0.7358	22	22	0	1
221630	-0.6465	-0.5414	8	9	1	1
223228	-1.0321	-0.3770	12	13	1	1
265896	-0.3687	-0.0717	11	12	1	1
266129	-0.4289	-0.5066	15	16	1	1
281968	1.5195	-0.2976	18	19	1	1
223157	-0.9445	0.9563	23	2	-21	0
272364	0.4837	-0.1492	23	3	-20	0
264759	-0.7014	-1.0233	20	2	-18	0
272180	1.6869	1.6537	19	1	-18	0
272283	0.9739	-0.3332	22	5	-17	0
272174	-0.1681	-0.1587	23	7	-16	0
272176	-0.8302	-0.2282	22	6	-16	0
217503	2.3761	0.4234	23	8	-15	0
272170	-0.0399	-0.2884	23	10	-13	0
272303	-0.2224	-0.7157	19	7	-12	0
273841	-0.9016	-0.7012	24	14	-10	0
217604	1.7832	-0.0066	13	10	-3	0
264304	-0.1163	-0.8482	18	15	-3	0
281510	-0.9265	0.5112	22	19	-3	0
217608	-1.0321	-0.3506	13	11	-2	0
217525	-0.6378	-0.3793	23	22	-1	0
266137	-1.0595	-0.4992	24	23	-1	0
217619	-0.7672	-0.6117	13	13	0	0
221683	1.4901	-0.4421	18	20	2	0

Table L-11. 2010 MCAS: Relative Position Study Results – Mathematics Grade 7

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
250450	-0.2104	-0.9775	27	23	-4	1
198325	-0.0881	2.6154	9	6	-3	1
235415	0.0288	0.5358	9	6	-3	1
249164	0.5092	-0.4113	9	6	-3	1
261637	-0.5877	-0.6554	9	6	-3	1
205464	-0.5987	-0.7694	8	6	-2	1
235468	1.6536	-0.9157	8	6	-2	1

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
272149	-1.0341	-0.1572	8	6	-2	1
205585	-1.0335	-0.8042	12	11	-1	1
208772	-0.5186	-0.4369	12	11	-1	1
250262	1.4433	0.5880	12	11	-1	1
219513	-0.9684	-0.5477	15	15	0	1
261650	0.3139	0.0007	20	20	0	1
208665	0.0338	0.5180	22	23	1	1
219525	0.6092	0.0113	1	4	3	1
228019	-0.9685	-0.6457	2	5	3	1
250330	-0.2482	-0.8186	17	20	3	1
259162	-1.0255	-0.6633	19	22	3	1
262321	-0.7801	-0.8479	13	18	5	1
205504	2.1375	0.5232	8	15	7	1
208618	1.2466	2.6140	8	15	7	1
208708	-0.7725	0.0891	8	15	7	1
250494	0.0863	-1.0537	8	15	7	1
281972	-0.6474	-1.0256	11	18	7	1
198393	-0.0151	-0.2149	6	15	9	1
205230	-0.7772	-0.7298	6	15	9	1
208512	1.6590	0.7374	6	15	9	1
250437	-0.0881	0.4681	6	15	9	1
250480	-1.0341	-0.6919	6	15	9	1
198330	-0.5877	-0.1099	20	9	-11	0
235466	0.4274	0.9417	9	1	-8	0
250491	-0.2613	-0.1364	8	1	-7	0
262279	-0.5738	1.0842	9	3	-6	0
272457	-0.0303	-0.0475	9	3	-6	0
260413	-0.0833	1.2999	7	2	-5	0
259238	-0.5565	-0.7466	7	4	-3	0
261630	-0.3079	-0.9859	27	24	-3	0
219531	1.1161	-0.6553	12	10	-2	0
219534	0.4045	-0.2661	12	10	-2	0
250852	-0.1311	0.1305	7	8	1	0
272155	-0.5202	-0.9263	22	24	2	0
228078	0.5542	2.4848	9	14	5	0
228084	4.0082	2.2296	7	12	5	0
250206	-0.9139	-1.0338	12	17	5	0
205228	-0.9296	-0.4245	11	21	10	0
205586	0.0604	0.8275	2	14	12	0

Table L-12. 2010 MCAS: Relative Position Study Results – Mathematics Grade 8

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
268713	0.8843	0.2542	23	17	-6	1
272945	-1.0335	-0.6676	27	23	-4	1
219579	0.9635	3.4456	9	6	-3	1
227812	-0.6423	-0.7169	9	6	-3	1

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
253758	0.2240	0.4636	9	6	-3	1
264777	0.4738	0.2121	9	6	-3	1
227807	-0.3999	0.9924	8	6	-2	1
263846	0.0484	0.8725	8	6	-2	1
264776	-0.0197	1.0244	8	6	-2	1
265932	0.8610	-0.8793	8	6	-2	1
219703	-0.2400	-1.0383	11	10	-1	1
226933	-0.3036	0.9117	12	11	-1	1
227750	1.5274	0.0425	12	11	-1	1
227825	-0.8586	0.5138	7	6	-1	1
228127	0.8634	2.0113	12	11	-1	1
228579	-0.7449	0.7767	7	6	-1	1
228687	-0.0861	-0.6150	1	1	0	1
253766	-0.7862	-0.6000	10	10	0	1
253813	-0.8871	-0.4132	22	23	1	1
263851	-1.1213	-0.6334	20	22	2	1
229552	-0.1682	-0.7945	3	6	3	1
265583	-0.6813	-0.9185	21	24	3	1
219599	0.2181	-0.6920	9	15	6	1
219677	0.0075	-0.7073	9	15	6	1
226927	-0.7862	-0.6386	9	15	6	1
227814	-0.2427	-0.8806	9	15	6	1
219614	0.2058	-0.9900	8	15	7	1
253742	0.4834	-0.5855	8	15	7	1
253894	-0.5797	-0.9564	11	18	7	1
219720	0.1419	0.8400	27	18	-9	0
253886	-0.5526	-0.3067	9	3	-6	0
226930	4.3318	1.5093	7	2	-5	0
219598	-0.7156	-0.6031	6	2	-4	0
219617	-0.7883	1.0552	9	5	-4	0
264744	-0.3405	-0.8768	27	24	-3	0
253691	-1.1975	-0.6079	9	7	-2	0
253856	0.2181	-0.1824	9	9	0	0
276326	-0.7734	2.0779	7	7	0	0
265955	-0.0243	-0.9873	6	8	2	0
229505	0.9002	1.3721	12	16	4	0
265598	0.1628	-0.6534	12	16	4	0
272938	-0.9028	-0.2231	8	12	4	0
265963	0.4323	0.4074	12	17	5	0
229725	1.2714	0.2271	9	15	6	0
264766	-0.9959	-0.9307	9	19	10	0
228118	2.3061	-0.0144	7	19	12	0
253852	-0.6529	-0.8968	7	20	13	0

Table L-13. 2010 MCAS: Relative Position Study Results – Science and Technology/Engineering Grade 5

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
227828	-0.6313	0.8337	24	20	-4	1
227859	-0.0606	0.1963	10	6	-4	1
245362	0.7941	-0.5376	10	6	-4	1
245485	0.2181	0.5978	10	6	-4	1
253115	-0.0439	-1.1253	10	6	-4	1
253150	-0.9142	-1.1321	10	6	-4	1
264845	-0.5936	-0.3235	24	20	-4	1
264881	-1.0680	-0.6933	10	6	-4	1
273717	-0.7401	0.1692	10	6	-4	1
273760	-0.2982	-0.9565	10	6	-4	1
273776	1.2292	0.9968	10	6	-4	1
281844	0.6000	-0.4977	10	6	-4	1
229322	-0.9445	0.9454	20	18	-2	1
245343	-0.9464	-0.0018	20	18	-2	1
264868	2.4317	-0.7840	20	18	-2	1
245468	-0.5063	-0.8704	17	18	1	1
245539	-1.0233	-0.7871	17	18	1	1
273693	-0.4189	1.6888	17	18	1	1
228993	0.4650	-1.1758	15	18	3	1
229266	1.3000	0.1202	15	18	3	1
281843	-0.9464	0.3755	15	18	3	1
264803	0.8841	1.6359	20	2	-18	0
273718	0.0262	-0.8623	15	2	-13	0
281840	1.9592	2.9091	17	10	-7	0
273716	-0.8848	-0.1441	17	12	-5	0
273761	0.0126	-0.2533	15	11	-4	0
264893	-0.7950	-0.5436	24	21	-3	0
281799	-0.8811	1.2794	10	8	-2	0
281826	-0.7142	2.6886	20	18	-2	0
273694	-0.2757	0.3010	12	11	-1	0
273697	-0.5063	-1.2652	17	16	-1	0
273741	-0.4760	0.0282	10	9	-1	0
273737	-0.7142	0.0216	3	3	0	0
273774	2.0719	-0.6391	15	15	0	0
281790	0.3176	-0.5446	13	13	0	0
281837	1.9023	0.1538	10	10	0	0
227839	-0.0439	-0.3603	13	17	4	0
281815	-0.9896	-0.9877	10	14	4	0
281864	-0.6205	-0.5938	10	20	10	0
245582	1.8247	0.1381	10	21	11	0

Table L-14. 2010 MCAS: Relative Position Study Results – Science and Technology/Engineering Grade 8

<i>Item Number</i>	<i>Delta</i>	<i>b</i>	<i>Relative Position</i>	<i>New Relative Position</i>	<i>Relative Position Difference</i>	<i>Equating Item</i>
229335	-0.3358	0.0887	10	6	-4	1
229437	0.0156	-1.2138	10	6	-4	1
229451	0.1021	0.0335	10	6	-4	1
229455	-0.5929	-0.4989	24	20	-4	1
246328	-1.1259	0.3535	10	6	-4	1
246356	-0.9932	-1.5927	10	6	-4	1
265247	-1.0341	-0.7644	10	6	-4	1
265280	-0.8690	-0.8435	10	6	-4	1
265283	0.5036	-0.7228	10	6	-4	1
273955	0.5312	0.6530	10	6	-4	1
282039	-0.2030	-0.0953	10	6	-4	1
282043	-1.0851	-0.9652	24	20	-4	1
229421	-0.7541	0.6204	20	18	-2	1
265230	0.9716	0.6444	20	18	-2	1
282065	0.1010	0.7579	20	18	-2	1
229394	-0.1448	-0.8567	17	18	1	1
265305	-0.3671	-1.3258	17	18	1	1
273956	-0.6304	-0.3170	17	18	1	1
229382	0.1763	1.0944	15	18	3	1
229404	-0.5807	2.0675	15	18	3	1
265292	0.2171	1.4003	15	18	3	1
274032	-0.1809	-0.2700	20	1	-19	0
282046	-0.7894	1.8102	20	5	-15	0
265219	0.5216	-0.8192	20	6	-14	0
265275	0.2241	-1.4490	15	3	-12	0
282026	0.4588	0.3853	15	3	-12	0
227989	-0.0929	-0.6769	20	9	-11	0
282028	0.4399	-1.2332	13	4	-9	0
281974	-0.2716	-0.8960	10	2	-8	0
229398	0.5115	-0.7046	20	13	-7	0
282029	-0.6832	0.2520	20	14	-6	0
227964	-0.0549	0.7112	20	15	-5	0
227964	-0.0549	0.7112	20	15	-5	0
229364	4.5485	1.6844	20	16	-4	0
281944	1.1064	1.0003	20	17	-3	0
282059	0.3072	-0.5475	24	21	-3	0
265267	-0.9692	-0.8361	7	7	0	0
265299	-0.2160	2.1025	2	2	0	0
273915	1.9442	0.8899	5	5	0	0
282018	-0.7028	-0.7118	20	22	2	0
227912	-0.3358	0.2591	10	14	4	0
227912	-1.1382	0.2591	10	14	4	0
273964	1.5251	0.5321	13	17	4	0