

NEVADA LINKING STUDY

A Study of the Alignment of the NWEA RIT Scale with
Nevada's Criterion-Referenced Test (CRT) and
High School Proficiency Exam (HSPE)
August 2011

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A STUDY OF THE ALIGNMENT OF THE NWEA RIT SCALE WITH THE NEVADA'S CRITERION-REFERENCED TEST (CRT) AND HIGH SCHOOL PROFICIENCY EXAM (HSPE)

AUGUST 2011

Recently, NWEA completed a project to connect the scale of Nevada's Criterion-Referenced Test (CRT) and High School Proficiency Exam (HSPE) used for Nevada's mathematics and reading assessments with NWEA's RIT scale. Information from the state assessments was used in a study to establish performance-level scores on the RIT scale that would indicate a good chance of success on these tests.

To perform the analysis, we linked together state test and NWEA test results for a sample of 28,084 Nevada students from at least 129 schools who completed both exams in the spring of 2011. The Nevada state test is administered in the spring. For the spring season (labeled "current season"), an Equipercntile method was used to estimate the RIT score equivalent to each state performance level. For fall (labeled "prior season"), we determined the percentage of the population within the selected study group that performed at each level on the state test and found the equivalent percentile ranges within the NWEA dataset to estimate the cut scores. For example, if 40% of the study group population in grade 3 mathematics performed below the proficient level on the state test, we would find the RIT score that would be equivalent to the 40th percentile for the study population (this would not be the same as the 40th percentile in the NWEA norms). This RIT score would be the estimated point on the NWEA RIT scale that would be equivalent to the minimum score for proficiency on the state test. Documentation about this method can be found on our website.

Table Sets 1 and 2 show the best estimate of the minimum RIT equivalent to each state performance level for same-season (spring) and prior-season (fall) RIT scores. These tables can be used to identify students who may need additional help to perform well on these tests. (The percentiles were constructed using the 2011 Norms.)

Table Sets 3 and 4 show the estimated probability of a student receiving a proficient score on the state assessment, based on that student's RIT score. These tables can be used to assist in identifying students who are not likely to pass these assessments and also for identifying target RIT-score objectives likely to correspond to successful or "proficient" performance on the state test.

Table 5 shows the correlation coefficients between MAP and the state test in each grade. These statistics show the degree to which MAP and the state test are linearly related, with values at or near 1.0 suggesting a perfect linear relationship, and values near 0.0 indicating no linear relationship. Table 6 shows the percentages of students at each grade and within each subject whose status on the state test (i.e., whether or not the student "met standards") was accurately predicted by their MAP performance and using the estimated cut scores within the current study. This table can be used to understand the predictive validity of MAP with respect to the CRT/HSPE.

TABLE SET 1 – MINIMUM ESTIMATED SAME-SEASON (SPRING) RIT CUT SCORES
CORRESPONDING TO STATE PERFORMANCE LEVELS

MATH-Current Season							
Cut Scores and Percentiles for each State Performance Level							
Grade	Developing/Emergent	Approaching		Meets		Exceeds	
	Cut Score	Cut Score	Perce- tile	Cut Score	Perce- tile	Cut Score	Perce- tile
2	<173	173	7	184	30	194	61
3	<185	185	7	197	30	207	61
4	<189	189	5	204	27	226	84
5	<205	205	15	212	29	242	92
6	<203	203	7	216	26	246	90
7	<205	205	6	219	24	250	87
8	<207	207	6	228	36	261	93
10	<204	204	4	236	47	258	85

READING-Current Season							
Cut Scores and Percentiles for each State Performance Level							
Grade	Developing/Emergent	Approaching		Meets		Exceeds	
	Cut Score	Cut Score	Perce- tile	Cut Score	Perce- tile	Cut Score	Perce- tile
2	<175	175	17	186	41	197	70
3	<185	185	17	196	41	207	70
4	<190	190	13	200	33	217	77
5	<198	198	15	208	38	221	73
6	<204	204	20	211	36	224	71
7	<208	208	21	217	43	231	78
8	<212	212	24	223	51	233	76
10	<216	216	31	222	45	235	75

LANGUAGE USAGE - Current Season							
Cut Scores and Percentiles for each State Performance Level							
Grade	Developing/Emergent	Approaching		Meets		Exceeds	
	Cut Score	Cut Score	Perce- tile	Cut Score	Perce- tile	Cut Score	Perce- tile
3	<189	189	21	198	44	207	69
4	<191	191	11	202	34	217	76
5	<199	199	16	209	40	222	77
6	<205	205	20	212	38	225	76
7	<211	211	27	218	47	229	78
8	<215	215	32	225	60	233	80

GENERAL SCIENCE-Current Season							
Cut Scores and Percentiles for each State Performance Level							
Grade	Well Below	Below		Met		Exceeds	
	Cut Score	Cut Score	Perce- tile	Cut Score	Perce- tile	Cut Score	Perce- tile
8	<204	204	23	213	50	226	86
10	<203	203	17	216	50	234	91

SCIENCE Concepts & Processes -Current Season							
Cut Scores and Percentiles for each State Performance Level							
Grade	Well Below	Below		Met		Exceeds	
	Cut Score	Cut Score	Perce- tile	Cut Score	Perce- tile	Cut Score	Perce- tile
8	<201	201	15	210	41	223	83
10	<203	203	18	213	46	230	91

*Note: the cut scores shown in this table are the **minimum** estimated scores. Meeting the minimum MAP cut score corresponds to a 50% probability of achieving that performance level. Use the probabilities in Table Set 3 to determine the appropriate ‘target’ scores for a desired level of certainty.

TABLE SET 2 – MINIMUM ESTIMATED PRIOR-SEASON (FALL) RIT CUT SCORES
CORRESPONDING TO STATE PERFORMANCE LEVELS

MATH-Prior Season							
Cut Scores and Percentiles for each State Performance Level							
Grade	Developing/Emergent	Approaching		Meets		Exceeds	
	Cut Score	Cut Score	Perce- tile	Cut Score	Perce- tile	Cut Score	Perce- tile
2	<160	160	7	172	30	182	60
3	<174	174	7	185	28	195	59
4	<182	182	5	195	26	216	83
5	<198	198	15	204	27	233	92
6	<198	198	7	210	25	240	90
7	<200	200	6	214	24	244	87
8	<203	203	6	224	36	256	93
10	<204	204	4	234	47	254	84

READING-Prior Season							
Cut Scores and Percentiles for each State Performance Level							
Grade	Developing/Emergent	Approaching		Meets		Exceeds	
	Cut Score	Cut Score	Perce- tile	Cut Score	Perce- tile	Cut Score	Perce- tile
2	<161	161	16	172	40	184	70
3	<176	176	17	186	39	198	70
4	<183	183	13	193	32	210	76
5	<192	192	14	203	38	215	71
6	<200	200	19	207	35	220	70
7	<205	205	21	214	43	227	77
8	<209	209	24	220	51	230	76
10	<215	215	30	221	45	233	75

LANGUAGE USAGE - Prior Season							
Cut Scores and Percentiles for each State Performance Level							
Grade	Developing/Emergent	Approaching		Meets		Exceeds	
	Cut Score	Cut Score	Perce- tile	Cut Score	Perce- tile	Cut Score	Perce- tile
3	<179	179	20	188	42	198	69
4	<184	184	11	195	33	211	76
5	<194	194	16	204	40	217	76
6	<201	201	19	208	37	221	75
7	<208	208	27	215	47	226	78
8	<212	212	31	222	60	230	80

GENERAL SCIENCE-Prior Season							
Cut Scores and Percentiles for each State Performance Level							
Grade	Well Below	Below		Met		Exceeds	
	Cut Score	Cut Score	Perce- tile	Cut Score	Perce- tile	Cut Score	Perce- tile
8	<202	202	22	210	47	223	85
10	<203	203	17	215	50	232	91

SCIENCE Concepts & Processes -Prior Season							
Cut Scores and Percentiles for each State Performance Level							
Grade	Well Below	Below		Met		Exceeds	
	Cut Score	Cut Score	Perce- tile	Cut Score	Perce- tile	Cut Score	Perce- tile
8	<199	199	14	208	41	220	82
10	<203	203	18	212	45	229	91

* Note: the cut scores shown in this table are the **minimum** estimated scores. Meeting the minimum MAP cut score corresponds to a 50% probability of achieving that performance level. Use the probabilities in Table Set 4 to determine the appropriate 'target' scores for a desired level of certainty.

TABLE SET 3 –ESTIMATED PROBABILITY OF SCORING AS PROFICIENT OR HIGHER ON THE STATE TEST IN SAME SEASON (SPRING), BY STUDENT GRADE AND RIT SCORE RANGE ON MAP ASSESSMENT

MATH-Current Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	3	4	5	6	7	8	10
120	0%	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%	0%
130	0%	0%	0%	0%	0%	0%	0%
135	0%	0%	0%	0%	0%	0%	0%
140	0%	0%	0%	0%	0%	0%	0%
145	1%	0%	0%	0%	0%	0%	0%
150	1%	0%	0%	0%	0%	0%	0%
155	1%	1%	0%	0%	0%	0%	0%
160	2%	1%	1%	0%	0%	0%	0%
165	4%	2%	1%	1%	0%	0%	0%
170	6%	3%	1%	1%	1%	0%	0%
175	10%	5%	2%	2%	1%	0%	0%
180	15%	8%	4%	3%	2%	1%	0%
185	23%	13%	6%	4%	3%	1%	1%
190	33%	20%	10%	7%	5%	2%	1%
195	45%	29%	15%	11%	8%	4%	2%
200	57%	40%	23%	17%	13%	6%	3%
205	69%	52%	33%	25%	20%	9%	4%
210	79%	65%	45%	35%	29%	14%	7%
215	86%	75%	57%	48%	40%	21%	11%
220	91%	83%	69%	60%	52%	31%	17%
225	94%	89%	79%	71%	65%	43%	25%
230	96%	93%	86%	80%	75%	55%	35%
235	98%	96%	91%	87%	83%	67%	48%
240	99%	97%	94%	92%	89%	77%	60%
245	99%	98%	96%	95%	93%	85%	71%
250	100%	99%	98%	97%	96%	90%	80%
255	100%	99%	99%	98%	97%	94%	87%
260	100%	100%	99%	99%	98%	96%	92%
265	100%	100%	100%	99%	99%	98%	95%
270	100%	100%	100%	100%	99%	99%	97%
275	100%	100%	100%	100%	100%	99%	98%
280	100%	100%	100%	100%	100%	99%	99%
285	100%	100%	100%	100%	100%	100%	99%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

*Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that same (spring) season. Example: if a fifth grade student scored 200 on a MAP test taken during the spring season, the estimated probability of passing the state test is 23%.

READING-Current Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	3	4	5	6	7	8	10
120	0%	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%	0%
130	0%	0%	0%	0%	0%	0%	0%
135	0%	0%	0%	0%	0%	0%	0%
140	0%	0%	0%	0%	0%	0%	0%
145	1%	0%	0%	0%	0%	0%	0%
150	1%	1%	0%	0%	0%	0%	0%
155	2%	1%	0%	0%	0%	0%	0%
160	3%	2%	1%	1%	0%	0%	0%
165	4%	3%	1%	1%	1%	0%	0%
170	7%	5%	2%	2%	1%	0%	1%
175	11%	8%	4%	3%	1%	1%	1%
180	17%	12%	6%	4%	2%	1%	1%
185	25%	18%	9%	7%	4%	2%	2%
190	35%	27%	14%	11%	6%	4%	4%
195	48%	38%	21%	17%	10%	6%	6%
200	60%	50%	31%	25%	15%	9%	10%
205	71%	62%	43%	35%	23%	14%	15%
210	80%	73%	55%	48%	33%	21%	23%
215	87%	82%	67%	60%	45%	31%	33%
220	92%	88%	77%	71%	57%	43%	45%
225	95%	92%	85%	80%	69%	55%	57%
230	97%	95%	90%	87%	79%	67%	69%
235	98%	97%	94%	92%	86%	77%	79%
240	99%	98%	96%	95%	91%	85%	86%
245	99%	99%	98%	97%	94%	90%	91%
250	100%	99%	99%	98%	96%	94%	94%
255	100%	100%	99%	99%	98%	96%	96%
260	100%	100%	99%	99%	99%	98%	98%
265	100%	100%	100%	100%	99%	99%	99%
270	100%	100%	100%	100%	100%	99%	99%
275	100%	100%	100%	100%	100%	99%	100%
280	100%	100%	100%	100%	100%	100%	100%
285	100%	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that same (spring) season. Example: if a fifth grade student scored 200 on a MAP test taken during the spring season, the estimated probability of passing the state test is 31%.

Language Usage - Current Season						
Estimated Probability of Passing State Test Based on Observed MAP Score						
RIT Range	3	4	5	6	7	8
120	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%
130	0%	0%	0%	0%	0%	0%
135	0%	0%	0%	0%	0%	0%
140	0%	0%	0%	0%	0%	0%
145	0%	0%	0%	0%	0%	0%
150	1%	1%	0%	0%	0%	0%
155	1%	1%	0%	0%	0%	0%
160	2%	1%	1%	1%	0%	0%
165	4%	2%	1%	1%	0%	0%
170	6%	4%	2%	1%	1%	0%
175	9%	6%	3%	2%	1%	1%
180	14%	10%	5%	4%	2%	1%
185	21%	15%	8%	6%	4%	2%
190	31%	23%	13%	10%	6%	3%
195	43%	33%	20%	15%	9%	5%
200	55%	45%	29%	23%	14%	8%
205	67%	57%	40%	33%	21%	12%
210	77%	69%	52%	45%	31%	18%
215	85%	79%	65%	57%	43%	27%
220	90%	86%	75%	69%	55%	38%
225	94%	91%	83%	79%	67%	50%
230	96%	94%	89%	86%	77%	62%
235	98%	96%	93%	91%	85%	73%
240	99%	98%	96%	94%	90%	82%
245	99%	99%	97%	96%	94%	88%
250	99%	99%	98%	98%	96%	92%
255	100%	100%	99%	99%	98%	95%
260	100%	100%	99%	99%	99%	97%
265	100%	100%	100%	100%	99%	98%
270	100%	100%	100%	100%	99%	99%
275	100%	100%	100%	100%	100%	99%
280	100%	100%	100%	100%	100%	100%
285	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%

Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that same (spring) season. Example: if a fifth grade student scored 200 on a MAP test taken during the spring season, the estimated probability of passing the state test is 29%.

Science - Current Season					
Estimated Probability of Passing State Test Based on Observed MAP Score					
RIT Range	General Science			Concepts&Processes	
	8	10		8	10
120	0%	0%		0%	0%
125	0%	0%		0%	0%
130	0%	0%		0%	0%
135	0%	0%		0%	0%
140	0%	0%		0%	0%
145	0%	0%		0%	0%
150	0%	0%		0%	0%
155	0%	0%		0%	0%
160	0%	0%		1%	0%
165	1%	1%		1%	1%
170	1%	1%		2%	1%
175	2%	2%		3%	2%
180	4%	3%		5%	4%
185	6%	4%		8%	6%
190	9%	7%		12%	9%
195	14%	11%		18%	14%
200	21%	17%		27%	21%
205	31%	25%		38%	31%
210	43%	35%		50%	43%
215	55%	48%		62%	55%
220	67%	60%		73%	67%
225	77%	71%		82%	77%
230	85%	80%		88%	85%
235	90%	87%		92%	90%
240	94%	92%		95%	94%
245	96%	95%		97%	96%
250	98%	97%		98%	98%
255	99%	98%		99%	99%
260	99%	99%		99%	99%
265	99%	99%		100%	99%
270	100%	100%		100%	100%
275	100%	100%		100%	100%
280	100%	100%		100%	100%
285	100%	100%		100%	100%
290	100%	100%		100%	100%
295	100%	100%		100%	100%
300	100%	100%		100%	100%

Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that same (spring) season. Example: if a tenth grade student scored 200 on a MAP test taken during the spring season, the estimated probability of passing the state test is 17%.

TABLE SET 4 –ESTIMATED PROBABILITY OF SCORING AS PROFICIENT OR HIGHER ON THE STATE TEST IN PRIOR SEASON (FALL), BY STUDENT GRADE AND RIT SCORE RANGE ON MAP

MATH-Prior Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	3	4	5	6	7	8	10
120	0%	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%	0%
130	0%	0%	0%	0%	0%	0%	0%
135	1%	0%	0%	0%	0%	0%	0%
140	1%	0%	0%	0%	0%	0%	0%
145	2%	1%	0%	0%	0%	0%	0%
150	3%	1%	0%	0%	0%	0%	0%
155	5%	2%	1%	0%	0%	0%	0%
160	8%	3%	1%	1%	0%	0%	0%
165	12%	5%	2%	1%	1%	0%	0%
170	18%	8%	3%	2%	1%	0%	0%
175	27%	12%	5%	3%	2%	1%	0%
180	38%	18%	8%	5%	3%	1%	0%
185	50%	27%	13%	8%	5%	2%	1%
190	62%	38%	20%	12%	8%	3%	1%
195	73%	50%	29%	18%	13%	5%	2%
200	82%	62%	40%	27%	20%	8%	3%
205	88%	73%	52%	38%	29%	13%	5%
210	92%	82%	65%	50%	40%	20%	8%
215	95%	88%	75%	62%	52%	29%	13%
220	97%	92%	83%	73%	65%	40%	20%
225	98%	95%	89%	82%	75%	52%	29%
230	99%	97%	93%	88%	83%	65%	40%
235	99%	98%	96%	92%	89%	75%	52%
240	100%	99%	97%	95%	93%	83%	65%
245	100%	99%	98%	97%	96%	89%	75%
250	100%	100%	99%	98%	97%	93%	83%
255	100%	100%	99%	99%	98%	96%	89%
260	100%	100%	100%	99%	99%	97%	93%
265	100%	100%	100%	100%	99%	98%	96%
270	100%	100%	100%	100%	100%	99%	97%
275	100%	100%	100%	100%	100%	99%	98%
280	100%	100%	100%	100%	100%	100%	99%
285	100%	100%	100%	100%	100%	100%	99%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

* Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that prior (fall) season. Example: if a fifth grade student scored 200 on a MAP test taken during the fall season, the estimated probability of passing the state test is 40%.

READING-Prior Season							
Estimated Probability of Passing State Test Based on Observed MAP Score							
RIT Range	3	4	5	6	7	8	10
120	0%	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%	0%
130	0%	0%	0%	0%	0%	0%	0%
135	1%	0%	0%	0%	0%	0%	0%
140	1%	0%	0%	0%	0%	0%	0%
145	2%	1%	0%	0%	0%	0%	0%
150	3%	1%	0%	0%	0%	0%	0%
155	4%	2%	1%	1%	0%	0%	0%
160	7%	4%	1%	1%	0%	0%	0%
165	11%	6%	2%	1%	1%	0%	0%
170	17%	9%	4%	2%	1%	1%	1%
175	25%	14%	6%	4%	2%	1%	1%
180	35%	21%	9%	6%	3%	2%	2%
185	48%	31%	14%	10%	5%	3%	3%
190	60%	43%	21%	15%	8%	5%	4%
195	71%	55%	31%	23%	13%	8%	7%
200	80%	67%	43%	33%	20%	12%	11%
205	87%	77%	55%	45%	29%	18%	17%
210	92%	85%	67%	57%	40%	27%	25%
215	95%	90%	77%	69%	52%	38%	35%
220	97%	94%	85%	79%	65%	50%	48%
225	98%	96%	90%	86%	75%	62%	60%
230	99%	98%	94%	91%	83%	73%	71%
235	99%	99%	96%	94%	89%	82%	80%
240	100%	99%	98%	96%	93%	88%	87%
245	100%	99%	99%	98%	96%	92%	92%
250	100%	100%	99%	99%	97%	95%	95%
255	100%	100%	99%	99%	98%	97%	97%
260	100%	100%	100%	100%	99%	98%	98%
265	100%	100%	100%	100%	99%	99%	99%
270	100%	100%	100%	100%	100%	99%	99%
275	100%	100%	100%	100%	100%	100%	100%
280	100%	100%	100%	100%	100%	100%	100%
285	100%	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%	100%

Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that prior (fall) season. Example: if a fifth grade student scored 200 on a MAP test taken during the fall season, the estimated probability of passing the state test is 43%.

Language Usage - Prior Season						
Estimated Probability of Passing State Test Based on Observed MAP Score						
RIT Range	3	4	5	6	7	8
120	0%	0%	0%	0%	0%	0%
125	0%	0%	0%	0%	0%	0%
130	0%	0%	0%	0%	0%	0%
135	0%	0%	0%	0%	0%	0%
140	1%	0%	0%	0%	0%	0%
145	1%	1%	0%	0%	0%	0%
150	2%	1%	0%	0%	0%	0%
155	4%	2%	1%	0%	0%	0%
160	6%	3%	1%	1%	0%	0%
165	9%	5%	2%	1%	1%	0%
170	14%	8%	3%	2%	1%	1%
175	21%	12%	5%	4%	2%	1%
180	31%	18%	8%	6%	3%	1%
185	43%	27%	13%	9%	5%	2%
190	55%	38%	20%	14%	8%	4%
195	67%	50%	29%	21%	12%	6%
200	77%	62%	40%	31%	18%	10%
205	85%	73%	52%	43%	27%	15%
210	90%	82%	65%	55%	38%	23%
215	94%	88%	75%	67%	50%	33%
220	96%	92%	83%	77%	62%	45%
225	98%	95%	89%	85%	73%	57%
230	99%	97%	93%	90%	82%	69%
235	99%	98%	96%	94%	88%	79%
240	99%	99%	97%	96%	92%	86%
245	100%	99%	98%	98%	95%	91%
250	100%	100%	99%	99%	97%	94%
255	100%	100%	99%	99%	98%	96%
260	100%	100%	100%	99%	99%	98%
265	100%	100%	100%	100%	99%	99%
270	100%	100%	100%	100%	100%	99%
275	100%	100%	100%	100%	100%	100%
280	100%	100%	100%	100%	100%	100%
285	100%	100%	100%	100%	100%	100%
290	100%	100%	100%	100%	100%	100%
295	100%	100%	100%	100%	100%	100%
300	100%	100%	100%	100%	100%	100%

Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during that prior (fall) season. Example: if a fifth grade student scored 200 on a MAP test taken during the fall season, the estimated probability of passing the state test is 40%.

Science - Prior Season					
Estimated Probability of Passing State Test Based on Observed MAP Score					
General Science			Concepts&Processes		
RIT Range	8	10		8	10
120	0%	0%		0%	0%
125	0%	0%		0%	0%
130	0%	0%		0%	0%
135	0%	0%		0%	0%
140	0%	0%		0%	0%
145	0%	0%		0%	0%
150	0%	0%		0%	0%
155	0%	0%		0%	0%
160	1%	0%		1%	1%
165	1%	1%		1%	1%
170	2%	1%		2%	1%
175	3%	2%		4%	2%
180	5%	3%		6%	4%
185	8%	5%		9%	6%
190	12%	8%		14%	10%
195	18%	12%		21%	15%
200	27%	18%		31%	23%
205	38%	27%		43%	33%
210	50%	38%		55%	45%
215	62%	50%		67%	57%
220	73%	62%		77%	69%
225	82%	73%		85%	79%
230	88%	82%		90%	86%
235	92%	88%		94%	91%
240	95%	92%		96%	94%
245	97%	95%		98%	96%
250	98%	97%		99%	98%
255	99%	98%		99%	99%
260	99%	99%		99%	99%
265	100%	99%		100%	100%
270	100%	100%		100%	100%
275	100%	100%		100%	100%
280	100%	100%		100%	100%
285	100%	100%		100%	100%
290	100%	100%		100%	100%
295	100%	100%		100%	100%
300	100%	100%		100%	100%

* Note: This table provides the estimated probability of passing the state test based on a MAP test score taken during the prior (fall) season. Example: if a tenth grade student scored 200 on a MAP test taken during the fall season, the estimated probability of passing the state test is 18%.

TABLE 5 – CORRELATION COEFFICIENTS BETWEEN MAP AND STATE TEST FOR EACH GRADE AND TEST SUBJECT

Grade	Math Correlation Pearson's r	Reading Correlation Pearson's r	Language Usage Correlation Pearson's r	General Science Correlation Pearson's r	Concepts&Process Correlation Pearson's r
3	.776	.815	.783		
4	.816	.821	.782		
5	.841	.821	.782		
6	.855	.802	.788		
7	.856	.781	.777		
8	.852	.785	.771	.749	.706
10	.845	.754		.779	.748

* Note: Correlations range from 0 (indicating no correlation between the state test score and the NWEA test score) to 1 (indicating complete correlation between the state test score and the NWEA test score).

TABLE 6 – PERCENTAGE OF STUDENTS WHOSE PASS STATUS WAS ACCURATELY PREDICTED BY THEIR MAP PERFORMANCE USING REPORTED CUT SCORES

Grade	Sample Size	MAP Accurately Predicted State Performance	MAP Underestimated State Performance	MAP Overestimated State Performance
Mathematics				
3	4805	84.9%	7.4%	7.7%
4	4763	84.5%	7.0%	8.5%
5	4425	85.4%	6.8%	7.8%
6	4471	87.4%	6.4%	6.2%
7	4490	86.8%	7.2%	6.0%
8	4678	86.4%	6.8%	6.9%
10	764	83.5%	8.5%	8.0%
Reading				
3	4792	84.0%	8.0%	8.0%
4	4759	86.3%	6.2%	7.6%
5	4425	82.9%	9.0%	8.1%
6	4464	83.8%	7.4%	8.8%
7	4493	81.4%	8.8%	9.8%
8	4650	81.0%	9.5%	9.5%
10	853	78.0%	11.0%	11.0%
Language Usage				
3	1592	83.3%	8.7%	8.0%
4	1626	85.7%	7.1%	7.2%
5	1667	82.2%	8.7%	9.1%
6	1510	82.8%	8.0%	9.1%
7	1087	82.7%	8.1%	9.2%
8	1043	80.5%	10.0%	9.5%
General Science				
8	1225	79.8%	9.8%	10.4%
10	897	82.4%	9.0%	8.6%
Concepts & Processes				
8	1262	78.3%	10.0%	11.7%
10	905	79.8%	9.7%	10.5%

* Note: The third column of this table shows the percentage of students whose Pass/Not Pass status was predicted accurately when their state test score was linked to their MAP score based on this linking study. The fourth column shows the percentage of students whose MAP score predicted they would not pass the state benchmark but they did pass. The last column shows the percentage of students whose MAP score predicted they would pass the state benchmark but they did not pass. Due to rounding, percentages may not add to 100%.