

# A Study of the Alignment of the NWEA RIT Scale with the California Assessment System

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# A Study of the Alignment of the NWEA RIT Scale with the California Assessment System

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Recently, NWEA completed a project to connect the scale of the tests used for California mathematics and reading assessments with NWEA's RIT scale. Information from the California 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 aggregate state test results with NWEA test results for all schools whose NWEA test count for a grade and subject was between 95% and 105% of the count tested on the state assessment. This provided assurance that only schools that had tested a very similar population on both tests were included.

The California state test is administered in spring. For the spring season, an equipercentile method was used to estimate the RIT score equivalent to each state performance level. For spring, 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 40<sup>th</sup> percentile for the study population (this would not be the same as the 40<sup>th</sup> 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.

More complete documentation about this method can be found on our website.

Tables 1 through 6 show the best estimate of the RIT equivalent to each California performance level for same-season (spring) and prior-season (fall) RIT scores. The table may be used to identify students who may need additional help to perform well on these tests.

Tables 7 through 12 show the proportion of students achieving various RIT score ranges whom we estimate would achieve a proficient score on the state assessment. These tables can be used to assist in identifying students who are not likely to pass these assessments, thereby increasing the probability that intervention strategies will be planned and implemented.

**Table 1 – Recommended same-season (spring) RIT cut scores for California performance levels - Reading**

Grade	Far Below Basic		Below Basic		Basic		Proficient		Advanced	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	
2	<160	160	4	175	18	189	49	202	84	
3	<176	176	8	188	23	203	61	214	90	
4	<179	179	5	190	14	204	43	214	74	
5	<190	190	8	200	19	213	53	222	81	
6	<193	193	7	205	21	218	56	229	85	
7	<193	193	6	208	21	220	52	232	84	
8	<197	197	6	212	22	225	56	236	87	
9	<202	202	8	214	21	224	45	234	77	
10	<209	209	12	219	27	231	61	239	86	

**Table 2 – Recommended same-season (spring) RIT cut scores for California performance levels – Language Usage**

Grade	Far Below Basic		Below Basic		Basic		Proficient		Advanced	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	
2	<167	167	6	181	22	194	54	205	85	
3	<182	182	9	194	27	206	63	217	91	
4	<186	186	7	195	16	207	46	217	78	
5	<194	194	7	203	20	214	51	223	82	
6	<195	195	6	206	19	218	53	228	86	
7	<197	197	6	209	21	220	52	229	83	
8	<199	199	5	211	20	223	54	232	84	
9	<200	200	4	210	14	221	40	229	69	

**Table 3 – Recommended same-season (spring) RIT cut scores for California performance levels – Mathematics**

Grade	Far Below Basic		Below Basic		Basic		Proficient		Advanced	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	
2	<165	165	2	180	19	189	44	199	77	
3	<175	175	2	193	22	201	46	211	79	
4	<183	183	3	201	23	212	55	223	83	
5	<197	197	7	211	31	221	57	234	86	
6	<197	197	6	215	29	229	62	245	92	
7	<200	200	6	219	29	233	59	252	92	
8	<203	203	6	224	29	239	59	257	92	

Note: blue text denotes extrapolated cut score

**Table 4 – Recommended prior-season (fall) RIT cut scores for California performance levels - Reading**

Grade	Far Below Basic		Below Basic		Basic		Proficient		Advanced	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	
2	<153	153	4	161	18	177	49	193	84	
3	<167	167	8	180	23	196	62	208	91	
4	<171	171	5	183	14	199	45	209	75	
5	<184	184	8	195	19	209	55	218	82	
6	<188	188	7	201	21	215	58	225	85	
7	<190	190	6	205	21	217	52	229	86	
8	<194	194	6	209	22	222	57	233	87	
9	<200	200	8	211	21	221	45	232	79	
10	<209	209	12	218	27	230	63	238	87	

**Table 5 – Recommended prior-season (fall) RIT cut scores for California performance levels – Language Usage**

Grade	Far Below Basic		Below Basic		Basic		Proficient		Advanced	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	
2	<160	160	7	167	23	182	56	195	85	
3	<172	172	9	186	29	199	65	210	91	
4	<180	180	7	189	16	202	47	212	78	
5	<187	187	7	199	21	210	52	220	83	
6	<191	191	6	203	20	215	54	225	86	
7	<194	194	6	207	21	218	52	228	85	
8	<195	195	5	210	21	221	54	230	84	
9	<195	195	4	208	14	219	40	227	69	

**Table 6 – Recommended prior-season (fall) RIT cut scores for California performance levels – Mathematics**

Grade	Far Below Basic		Below Basic		Basic		Proficient		Advanced	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	
2	<158	158	2	169	19	177	44	187	77	
3	<166	166	2	183	22	192	47	202	80	
4	<177	177	3	195	24	205	57	214	84	
5	<191	191	7	205	31	214	59	225	86	
6	<193	193	6	210	29	223	64	237	92	
7	<197	197	6	216	30	228	59	245	92	
8	<201	201	6	221	30	234	59	251	92	

Note: blue text denotes extrapolated cut score

**Table 7 – Proportion of students passing the California state reading assessment based on same-season (spring) reading RIT range**

RIT Range	Percent in this range who pass								
	2	3	4	5	6	7	8	9	10
160	6%	2%	1%	1%	0%	0%	0%	0%	0%
165	10%	3%	2%	1%	1%	1%	0%	0%	0%
170	16%	4%	4%	2%	1%	1%	1%	1%	0%
175	23%	7%	6%	3%	2%	1%	1%	1%	0%
180	33%	11%	10%	4%	3%	2%	1%	1%	1%
185	45%	17%	16%	7%	4%	4%	2%	2%	1%
190	57%	25%	23%	11%	7%	6%	4%	4%	2%
195	69%	36%	33%	17%	11%	9%	6%	6%	3%
200	78%	48%	45%	25%	17%	14%	9%	10%	5%
205	86%	60%	57%	36%	25%	22%	14%	16%	8%
210	91%	71%	69%	48%	36%	31%	22%	23%	13%
215	94%	80%	78%	60%	48%	43%	31%	33%	20%
220	96%	87%	86%	71%	60%	55%	43%	45%	29%
225	98%	92%	91%	80%	71%	67%	55%	57%	40%
230	99%	95%	94%	87%	80%	77%	67%	69%	52%
235	99%	97%	96%	92%	87%	84%	77%	78%	64%
240	99%	98%	98%	95%	92%	90%	84%	86%	75%
245	100%	99%	99%	97%	95%	94%	90%	91%	83%
250	100%	99%	99%	98%	97%	96%	94%	94%	89%
255	100%	100%	99%	99%	98%	98%	96%	96%	93%
260	100%	100%	100%	99%	99%	99%	98%	98%	96%

**Table 8 – Proportion of students passing the California state language usage assessment based on same-season (spring) language usage RIT range**

RIT Range	Percent in this range who pass							
	2	3	4	5	6	7	8	9
165	6%	2%	2%	1%	1%	1%	0%	0%
170	10%	3%	3%	1%	1%	1%	1%	1%
175	16%	5%	5%	2%	2%	1%	1%	1%
180	23%	8%	8%	4%	3%	2%	2%	2%
185	33%	13%	12%	6%	4%	4%	3%	3%
190	45%	20%	18%	10%	7%	6%	4%	5%
195	57%	29%	27%	16%	11%	9%	7%	8%
200	69%	40%	38%	23%	17%	14%	11%	13%
205	78%	52%	50%	33%	25%	22%	17%	20%
210	86%	64%	62%	45%	36%	31%	25%	29%
215	91%	75%	73%	57%	48%	43%	36%	40%
220	94%	83%	82%	69%	60%	55%	48%	52%
225	96%	89%	88%	78%	71%	67%	60%	64%
230	98%	93%	92%	86%	80%	77%	71%	75%
235	99%	96%	95%	91%	87%	84%	80%	83%
240	99%	97%	97%	94%	92%	90%	87%	89%
245	99%	98%	98%	96%	95%	94%	92%	93%
250	100%	99%	99%	98%	97%	96%	95%	96%

**Table 9 – Proportion of students passing the California state mathematics assessment based on same-season (spring) mathematics RIT range**

RIT Range	Percent in this range who pass						
	2	3	4	5	6	7	8
160	6%	2%	1%	0%	0%	0%	0%
165	10%	3%	1%	0%	0%	0%	0%
170	16%	5%	2%	1%	0%	0%	0%
175	23%	8%	3%	1%	1%	0%	0%
180	33%	13%	5%	2%	1%	1%	0%
185	45%	20%	8%	3%	1%	1%	0%
190	57%	29%	12%	5%	2%	2%	0%
195	69%	40%	18%	8%	4%	3%	0%
200	78%	52%	27%	13%	6%	4%	0%
205	86%	64%	38%	20%	10%	7%	1%
210	91%	75%	50%	29%	16%	11%	1%
215	94%	83%	62%	40%	23%	17%	2%
220	96%	89%	73%	52%	33%	25%	3%
225	98%	93%	82%	64%	45%	36%	5%
230	99%	96%	88%	75%	57%	48%	8%
235	99%	97%	92%	83%	69%	60%	12%
240	99%	98%	95%	89%	78%	71%	18%
245	100%	99%	97%	93%	86%	80%	27%
250	100%	99%	98%	96%	91%	87%	38%
255	100%	100%	99%	97%	94%	92%	50%
260	100%	100%	99%	98%	96%	95%	62%
265	100%	100%	100%	99%	98%	97%	73%
270	100%	100%	100%	99%	99%	98%	82%
275	100%	100%	100%	100%	99%	99%	88%
280	100%	100%	100%	100%	99%	99%	92%
285	100%	100%	100%	100%	100%	100%	95%

**Table 10 – Proportion of students passing the California state reading assessment based on prior-season (fall) reading RIT range**

RIT Range	Percent in this range who pass									
	2	3	4	5	6	7	8	9	10	
145	5%	1%	1%	0%	0%	0%	0%	0%	0%	
150	8%	1%	1%	0%	0%	0%	0%	0%	0%	
155	12%	2%	1%	1%	0%	0%	0%	0%	0%	
160	18%	3%	2%	1%	1%	0%	0%	0%	0%	
165	27%	5%	4%	1%	1%	1%	0%	0%	0%	
170	38%	8%	6%	2%	1%	1%	1%	1%	0%	
175	50%	13%	10%	4%	2%	2%	1%	1%	1%	
180	62%	20%	16%	6%	4%	3%	2%	2%	1%	
185	73%	29%	23%	10%	6%	5%	3%	3%	1%	
190	82%	40%	33%	16%	9%	8%	5%	5%	2%	
195	88%	52%	45%	23%	14%	12%	8%	8%	4%	
200	92%	64%	57%	33%	22%	18%	12%	13%	6%	
205	95%	75%	69%	45%	31%	27%	18%	20%	9%	
210	97%	83%	78%	57%	43%	38%	27%	29%	14%	
215	98%	89%	86%	69%	55%	50%	38%	40%	22%	
220	99%	93%	91%	78%	67%	62%	50%	52%	31%	
225	99%	96%	94%	86%	77%	73%	62%	64%	43%	
230	100%	97%	96%	91%	84%	82%	73%	75%	55%	
235	100%	98%	98%	94%	90%	88%	82%	83%	67%	
240	100%	99%	99%	96%	94%	92%	88%	89%	77%	
245	100%	99%	99%	98%	96%	95%	92%	93%	84%	
250	100%	100%	99%	99%	98%	97%	95%	96%	90%	
255	100%	100%	100%	99%	99%	98%	97%	97%	94%	
260	100%	100%	100%	99%	99%	99%	98%	98%	96%	

**Table 11 – Proportion of students passing the California state language usage assessment based on prior-season (fall) language usage RIT range**

RIT Range	Percent in this range who pass							
	2	3	4	5	6	7	8	9
150	5%	1%	1%	0%	0%	0%	0%	0%
155	8%	1%	1%	1%	0%	0%	0%	0%
160	12%	2%	2%	1%	1%	0%	0%	0%
165	18%	4%	3%	1%	1%	1%	0%	1%
170	27%	6%	5%	2%	1%	1%	1%	1%
175	38%	10%	8%	4%	2%	2%	1%	1%
180	50%	16%	12%	6%	4%	3%	2%	2%
185	62%	23%	18%	9%	6%	4%	3%	4%
190	73%	33%	27%	14%	9%	7%	5%	6%
195	82%	45%	38%	22%	14%	11%	8%	10%
200	88%	57%	50%	31%	22%	17%	13%	16%
205	92%	69%	62%	43%	31%	25%	20%	23%
210	95%	78%	73%	55%	43%	36%	29%	33%
215	97%	86%	82%	67%	55%	48%	40%	45%
220	98%	91%	88%	77%	67%	60%	52%	57%
225	99%	94%	92%	84%	77%	71%	64%	69%
230	99%	96%	95%	90%	84%	80%	75%	78%
235	100%	98%	97%	94%	90%	87%	83%	86%
240	100%	99%	98%	96%	94%	92%	89%	91%
245	100%	99%	99%	98%	96%	95%	93%	94%
250	100%	99%	99%	99%	98%	97%	96%	96%

**Table 12 – Proportion of students passing the California state mathematics assessment based on prior-season (fall) mathematics RIT range**

RIT Range	Percent in this range who pass						
	2	3	4	5	6	7	8
145	5%	1%	0%	0%	0%	0%	0%
150	8%	2%	1%	0%	0%	0%	0%
155	12%	3%	1%	0%	0%	0%	0%
160	18%	5%	1%	1%	0%	0%	0%
165	27%	8%	2%	1%	0%	0%	0%
170	38%	12%	4%	1%	1%	0%	0%
175	50%	18%	6%	2%	1%	1%	0%
180	62%	27%	9%	4%	2%	1%	1%
185	73%	38%	14%	6%	3%	2%	1%
190	82%	50%	22%	10%	4%	3%	1%
195	88%	62%	31%	16%	7%	4%	2%
200	92%	73%	43%	23%	11%	7%	4%
205	95%	82%	55%	33%	17%	11%	6%
210	97%	88%	67%	45%	25%	17%	10%
215	98%	92%	77%	57%	36%	25%	16%
220	99%	95%	84%	69%	48%	36%	23%
225	99%	97%	90%	78%	60%	48%	33%
230	100%	98%	94%	86%	71%	60%	45%
235	100%	99%	96%	91%	80%	71%	57%
240	100%	99%	98%	94%	87%	80%	69%
245	100%	100%	99%	96%	92%	87%	78%
250	100%	100%	99%	98%	95%	92%	86%
255	100%	100%	99%	99%	97%	95%	91%
260	100%	100%	100%	99%	98%	97%	94%
265	100%	100%	100%	99%	99%	98%	96%