

# **A Study of the Alignment of the NWEA RIT Scale with the South Carolina Assessment System**

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

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Recently, NWEA completed a project to connect the scale of the tests used for South Carolina reading, mathematics, and science assessments with NWEA's RIT scale. Information from the South Carolina 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 South Carolina 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 10 show the best estimate of the RIT equivalent to each South Carolina performance level for same-season (spring) and prior-season (fall) RIT scores. These tables may be used to identify students who may need additional help to perform well on these tests.

Tables 11 through 20 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 South Carolina performance levels - Reading**

Grade	Below Basic	Basic	Proficient		Advanced		
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile
3	<181	181	13	197	43	214	90
4	<193	193	18	209	58	225	95
5	<200	200	19	216	64	232	96
6	<207	207	25	220	62	232	91
7	<211	211	27	226	69	241	96
8	<213	213	24	230	71	244	97

Percentile column shows the associated NWEA norm group percentile score.

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

Grade	Below Basic	Basic	Proficient		Advanced		
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile
3	<182	182	9	198	38	215	87
4	<194	194	15	209	53	224	93
5	<201	201	16	217	62	230	95
6	<208	208	23	220	60	231	92
7	<212	212	28	226	74	238	97
8	<213	213	24	229	75	242	98

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

Grade	Below Basic		Basic		Proficient		Advanced	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	
3	<193	193	22	208	71	217	91	
4	<202	202	26	215	64	225	87	
5	<209	209	26	227	72	234	86	
6	<211	211	22	230	65	240	85	
7	<218	218	27	237	68	245	83	
8	<228	228	36	246	75	254	88	

**Table 4 - Recommended same-season (spring) RIT cut scores for South Carolina performance levels - Science Concepts**

Grade	Below Basic		Basic		Proficient		Advanced	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	
3	<190	190	15	200	59	207	88	
4	<195	195	18	204	56	209	79	
5	<201	201	23	209	61	213	80	
6	<205	205	27	213	63	218	81	
7	<205	205	21	215	59	220	81	
8	<207	207	18	219	61	224	81	

**Table 5 - Recommended same-season (spring) RIT cut scores for South Carolina performance levels - General Science**

Grade	Below Basic		Basic		Proficient		Advanced	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	
3	<191	191	23	202	71	208	91	
4	<197	197	29	205	64	211	85	
5	<202	202	33	211	73	214	83	
6	<206	206	37	215	74	220	89	
7	<206	206	27	215	64	222	86	
8	<208	208	24	221	73	225	85	

**Table 6 - Recommended prior-season (fall) RIT cut scores for South Carolina performance levels - Reading**

Grade	Below Basic	Basic	Proficient		Advanced		
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile
3	<173	173	13	189	43	208	91
4	<187	187	19	204	60	219	95
5	<195	195	19	212	65	227	96
6	<203	203	25	217	65	228	91
7	<208	208	27	223	71	236	96
8	<210	210	24	227	72	241	97

Percentile column shows the associated NWEA norm group percentile score.

**Table 7 - Recommended prior-season (fall) RIT cut scores for South Carolina performance levels - Language Usage**

Grade	Below Basic	Basic	Proficient		Advanced		
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile
3	<172	172	9	190	39	208	87
4	<188	188	15	204	53	219	93
5	<196	196	16	213	62	226	95
6	<205	205	24	217	61	228	92
7	<210	210	28	225	77	235	97
8	<211	211	24	227	75	239	98

**Table 8 - Recommended prior-season (fall) RIT cut scores for South Carolina performance levels - Mathematics**

Grade	Below Basic		Basic		Proficient		Advanced	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	
3	<183	183	22	199	71	207	91	
4	<196	196	27	207	64	216	88	
5	<203	203	26	219	73	225	86	
6	<207	207	23	224	67	232	85	
7	<215	215	28	232	69	238	83	
8	<224	224	36	240	75	248	89	

**Table 9 - Recommended prior-season (fall) RIT cut scores for South Carolina performance levels - Science Concepts**

Grade	Below Basic		Basic		Proficient		Advanced	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	
3	<180	180	15	192	59	200	89	
4	<188	188	19	197	57	203	82	
5	<194	194	26	203	63	208	82	
6	<200	200	28	209	63	215	83	
7	<200	200	22	211	63	217	83	
8	<202	202	19	214	63	219	82	

**Table 10 - Recommended prior-season (fall) RIT cut scores for South Carolina performance levels - General Science**

Grade	Below Basic		Basic		Proficient		Advanced	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile	
3	<185	185	25	196	71	203	91	
4	<193	193	34	201	67	206	85	
5	<200	200	43	208	76	211	85	
6	<203	203	46	211	76	216	89	
7	<203	203	33	213	70	220	89	
8	<203	203	24	217	74	221	86	

**Table 11 - Proportion of students passing the South Carolina state reading assessment based on same-season (spring) RIT range**

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

**Table 12 - Proportion of students passing the South Carolina state language usage assessment based on same-season (spring) RIT range**

RIT Range	Percent in this range who pass					
	3	4	5	6	7	8
170	7%	2%	1%	1%	0%	0%
175	11%	4%	2%	1%	1%	1%
180	17%	6%	3%	2%	1%	1%
185	25%	10%	5%	4%	2%	1%
190	36%	16%	8%	6%	3%	2%
195	48%	23%	12%	9%	5%	4%
200	60%	33%	18%	14%	8%	6%
205	71%	45%	27%	22%	13%	10%
210	80%	57%	38%	31%	20%	16%
215	87%	69%	50%	43%	29%	23%
220	92%	78%	62%	55%	40%	33%
225	95%	86%	73%	67%	52%	45%
230	97%	91%	82%	77%	64%	57%
235	98%	94%	88%	84%	75%	69%
240	99%	96%	92%	90%	83%	78%
245	99%	98%	95%	94%	89%	86%
250	100%	99%	97%	96%	93%	91%
255	100%	99%	98%	98%	96%	94%
260	100%	99%	99%	99%	97%	96%

**Table 13 - Proportion of students passing the South Carolina state mathematics assessment based on same-season (spring) RIT range**

RIT Range	Percent in this range who pass					
	3	4	5	6	7	8
180	7%	4%	1%	1%	0%	0%
185	11%	6%	2%	1%	1%	0%
190	17%	9%	3%	2%	1%	0%
195	25%	14%	5%	4%	2%	1%
200	36%	22%	8%	6%	3%	1%
205	48%	31%	12%	9%	5%	2%
210	60%	43%	18%	14%	8%	3%
215	71%	55%	27%	22%	12%	5%
220	80%	67%	38%	31%	18%	8%
225	87%	77%	50%	43%	27%	13%
230	92%	84%	62%	55%	38%	20%
235	95%	90%	73%	67%	50%	29%
240	97%	94%	82%	77%	62%	40%
245	98%	96%	88%	84%	73%	52%
250	99%	98%	92%	90%	82%	64%
255	99%	99%	95%	94%	88%	75%
260	100%	99%	97%	96%	92%	83%
265	100%	99%	98%	98%	95%	89%
270	100%	100%	99%	99%	97%	93%
275	100%	100%	99%	99%	98%	96%

**Table 14 - Proportion of students passing the South Carolina state science concepts assessment based on same-season (spring) RIT range**

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

**Table 15 - Proportion of students passing the South Carolina state general science assessment based on same-season (spring) RIT range**

RIT Range	Percent in this range who pass					
	3	4	5	6	7	8
170	5%	4%	2%	1%	1%	1%
175	8%	6%	3%	2%	2%	1%
180	12%	9%	5%	4%	4%	2%
185	18%	14%	8%	6%	6%	3%
190	27%	22%	13%	9%	9%	5%
195	38%	31%	20%	14%	14%	8%
200	50%	43%	29%	22%	22%	13%
205	62%	55%	40%	31%	31%	20%
210	73%	67%	52%	43%	43%	29%
215	82%	77%	64%	55%	55%	40%
220	88%	84%	75%	67%	67%	52%
225	92%	90%	83%	77%	77%	64%
230	95%	94%	89%	84%	84%	75%
235	97%	96%	93%	90%	90%	83%
240	98%	98%	96%	94%	94%	89%
245	99%	99%	97%	96%	96%	93%
250	99%	99%	98%	98%	98%	96%

**Table 16 - Proportion of students passing the South Carolina state reading assessment based on prior-season (fall) RIT range**

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

**Table 17 - Proportion of students passing the South Carolina state language usage assessment based on prior-season (fall) RIT range**

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

**Table 18 - Proportion of students passing the South Carolina state mathematics assessment based on prior-season (fall) RIT range**

RIT Range	Percent in this range who pass					
	3	4	5	6	7	8
170	6%	3%	1%	1%	0%	0%
175	10%	5%	1%	1%	0%	0%
180	16%	8%	2%	1%	1%	0%
185	23%	12%	4%	2%	1%	1%
190	33%	18%	6%	4%	2%	1%
195	45%	27%	10%	6%	3%	1%
200	57%	38%	16%	10%	5%	2%
205	69%	50%	23%	16%	8%	4%
210	78%	62%	33%	23%	12%	6%
215	86%	73%	45%	33%	18%	9%
220	91%	82%	57%	45%	27%	14%
225	94%	88%	69%	57%	38%	22%
230	96%	92%	78%	69%	50%	31%
235	98%	95%	86%	78%	62%	43%
240	99%	97%	91%	86%	73%	55%
245	99%	98%	94%	91%	82%	67%
250	99%	99%	96%	94%	88%	77%
255	100%	99%	98%	96%	92%	84%
260	100%	100%	99%	98%	95%	90%
265	100%	100%	99%	99%	97%	94%
270	100%	100%	99%	99%	98%	96%

**Table 19 - Proportion of students passing the South Carolina state science concepts assessment based on prior-season (fall) RIT range**

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

**Table 20 - Proportion of students passing the South Carolina state general science assessment based on prior-season (fall) RIT range**

RIT Range	Percent in this range who pass					
	3	4	5	6	7	8
165	5%	3%	2%	1%	1%	1%
170	8%	5%	3%	2%	2%	1%
175	13%	8%	4%	3%	3%	2%
180	20%	13%	7%	5%	4%	3%
185	29%	20%	11%	8%	7%	5%
190	40%	29%	17%	13%	11%	8%
195	52%	40%	25%	20%	17%	12%
200	64%	52%	36%	29%	25%	18%
205	75%	64%	48%	40%	36%	27%
210	83%	75%	60%	52%	48%	38%
215	89%	83%	71%	64%	60%	50%
220	93%	89%	80%	75%	71%	62%
225	96%	93%	87%	83%	80%	73%
230	97%	96%	92%	89%	87%	82%
235	98%	97%	95%	93%	92%	88%
240	99%	98%	97%	96%	95%	92%
245	99%	99%	98%	97%	97%	95%