2005 Normative Data for Science

Monitoring Student Achievement Data

NWEA ASSESSMENTS ARE UNIQUELY DESIGNED to provide educators with the most accurate measurement of student achievement and student growth across time. NWEA results allow educators to interpret the data in several ways.

Normative Data

As a preliminary reference point, educators can use normative achievement data to compare class or grade-level performance to the performance of students in the same grade from a wide variety of schools throughout the nation. The NWEA 2005 Norms Study, from which these charts were produced, includes results from more than 2.3 million students in 794 school districts, representing 32 states.

The vast majority of NWEA districts test students in grades 3 through 8, while fewer districts also test students in grades 2, 9, and 10. All grades from 2 to 10 had more than adequate samples of students to create stable status and growth norms in Reading, Language Usage, and Mathematics. Fewer districts test in Science. Those that do test Science often test in selected grades. As a result, stable Science norms were only created for the fall testing seasons for grades 3 through 10 in both General Science and Science Concepts and Processes. Spring General Science norms were created for grades 2 through 10. Only students in grades 3 through 8 were tested in adequate numbers for creating spring norms in Science Concepts and Processes.

While we do not yet have enough information to create growth norms for the Science scales, the differences in grade level means and medians should be strong indicators of the amount of growth to be anticipated between grades.

Other Interpretations

For a more meaningful interpretation of a student's test results, educators look to virtual comparison groups. In this type of comparison, a student's achievement growth can be viewed alongside the achievement growth of other students who exhibit the same characteristics in terms of beginning performance level and grade and have similar school situations.

In addition, teachers can use NWEA test results to determine a student's instructional level. By referencing a student's RIT score in DesCartes: A Continuum of Learning, teachers gain an indication of what skills and concepts a student understands, what skills he or she is developing, and what will be academically challenging.

To learn more about virtual comparison groups and DesCartes, call NWEA at 503-624-1951.

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2005 General Science (RIT values)

	FALL		SPRING	
Grade	Median	Mean	Median	Mean
2	n/a	n/a	192	191.8
3	192	191.4	198	197.3
4	197	197.0	202	202.0
5	202	201.4	206	205.9
6	204	203.8	210	209.2
7	208	207.3	212	211.8
8	211	210.0	215	214.9
9	216	214.5	220	219.5
10	219	218.3	220	219.3

2005 Science Concepts and Processes (RIT values)

	FALL		SPRING	
Grade	Median	Mean	Median	Mean
2	n/a	n/a	n/a	n/a
3	191	189.9	199	198.2
4	196	195.6	203	202.7
5	200	199.9	207	206.6
6	206	205.8	211	210.3
7	208	207.7	213	212.5
8	211	210.0	217	216.1
9	213	212.1	n/a	n/a
10	215	214.6	n/a	n/a

2005 Language Usage Achievement and Growth Norms (RIT values)

	FALL		SPRING	
Grade	Median	Mean	Median	Mean
2	180	179.7	193	191.4
3	194	193.1	202	200.8
4	203	201.7	209	207.1
5	210	208.2	214	212.5
6	214	212.4	218	215.9
7	218	215.9	220	218.0
8	220	218.5	222	220.5
9	222	220.3	224	222.4
10	225	222.9	225	223.2

	MEAN GROWTH		
Ending Grade	Fall to Spring	Fall to Fall	Spring to Spring
2	14.1	n/a	n/a
3	9.1	15.3	10.1
4	6.3	9.5	6.9
5	5.2	6.7	5.6
6	4.0	4.9	3.8
7	2.9	3.7	2.7
8	2.6	3.1	2.7
9	1.4	2.4	1.2
10	1.1	2.0	1.4

2005 Reading Achievement and Growth Norms (RIT values)

	FALL		SPRING	
Grade	Median	Mean	Median	Mean
2	178	177.2	190	188.2
3	192	190.3	200	197.9
4	201	199.1	207	205.0
5	208	205.8	212	210.6
6	213	211.0	217	215.0
7	217	214.8	220	218.1
8	220	218.2	223	221.3
9	223	220.7	225	223.1
10	226	223.6	227	224.1

	MEAN GROWTH		
Ending Grade	Fall to Spring	Fall to Fall	Spring to Spring
2	13.1	n/a	n/a
3	9.1	14.4	10.7
4	6.5	9.7	7.5
5	5.4	7.1	6.3
6	4.3	5.4	4.6
7	3.4	4.4	3.7
8	3.2	3.9	3.7
9	1.6	3.0	1.7
10	0.8	2.4	1.8

2005 Mathematics Achievement and Growth Norms (RIT values)

	FALL		SPRING	
Grade	Median	Mean	Median	Mean
2	179	179.3	191	190.6
3	193	192.3	202	201.7
4	203	202.7	211	210.4
5	211	211.2	219	218.3
6	218	217.4	224	223.3
7	225	223.4	229	228.0
8	230	228.5	234	232.8
9	234	231.7	239	236.2
10	238	235.6	240	238.1

	MEAN GROWTH		
Ending Grade	Fall to Spring	Fall to Fall	Spring to Spring
2	13.9	n/a	n/a
3	10.9	15.1	12.0
4	8.8	11.5	9.5
5	8.7	9.2	9.0
6	7.2	7.6	6.1
7	6.0	7.2	6.1
8	5.2	6.6	6.1
9	3.2	5.0	3.9
10	2.8	3.8	3.2