

Performance Series Expected Scale Score Gain Beginning to End of Year by Assessment, Grade Level, and Beginning-of-Year Quartile

Grade Level	Quartile (based on beginning-of-year NPR/National Percentile Rank)	Math	Reading	Language Arts	Science (Life & Inquiry)
Grade 2	Quartile 1 (NPR 1 - 25)	242.33	316.24	267.82	344.36
Grade 2	Quartile 2 (NPR 26 - 50)	197.27	279.18	225.15	201.52
Grade 2	Quartile 3 (NPR 51 - 75)	164.57	263.64	177.22	156.89
Grade 2	Quartile 4 (NPR 76 - 99)	140.43	170.38	115.14	80.56
Grade 3	Quartile 1 (NPR 1 - 25)	205.38	254.67	208.96	232.97
Grade 3	Quartile 2 (NPR 26 - 50)	175.90	193.31	118.10	118.33
Grade 3	Quartile 3 (NPR 51 - 75)	161.85	164.34	102.00	94.23
Grade 3	Quartile 4 (NPR 76 - 99)	122.33	102.20	59.55	68.10
Grade 4	Quartile 1 (NPR 1 - 25)	149.11	204.83	128.26	157.99
Grade 4	Quartile 2 (NPR 26 - 50)	130.70	153.01	83.29	90.38
Grade 4	Quartile 3 (NPR 51 - 75)	121.09	110.26	72.21	68.19
Grade 4	Quartile 4 (NPR 76 - 99)	114.47	64.48	30.87	48.39
Grade 5	Quartile 1 (NPR 1 - 25)	140.22	169.75	99.16	121.00
Grade 5	Quartile 2 (NPR 26 - 50)	128.19	114.75	69.73	75.65
Grade 5	Quartile 3 (NPR 51 - 75)	132.19	74.08	30.69	59.69
Grade 5	Quartile 4 (NPR 76 - 99)	123.90	39.70	20.16	41.63
Grade 6	Quartile 1 (NPR 1 - 25)	119.00	144.32	102.46	99.56
Grade 6	Quartile 2 (NPR 26 - 50)	106.75	78.87	56.29	49.64
Grade 6	Quartile 3 (NPR 51 - 75)	105.18	44.85	43.48	37.08
Grade 6	Quartile 4 (NPR 76 - 99)	101.57	17.18	19.95	8.54
Grade 7	Quartile 1 (NPR 1 - 25)	106.53	135.01	79.30	64.02
Grade 7	Quartile 2 (NPR 26 - 50)	97.27	59.58	40.51	24.76
Grade 7	Quartile 3 (NPR 51 - 75)	93.52	37.19	30.49	27.25
Grade 7	Quartile 4 (NPR 76 - 99)	84.99	12.16	16.89	26.03
Grade 8	Quartile 1 (NPR 1 - 25)	90.32	114.60	97.57	59.89
Grade 8	Quartile 2 (NPR 26 - 50)	77.16	42.07	40.63	24.06
Grade 8	Quartile 3 (NPR 51 - 75)	77.40	29.97	26.45	14.39
Grade 8	Quartile 4 (NPR 76 - 99)	92.48	4.17	7.89	0.00

Example of Expected Gain by Quartile for 3rd Grade Reading

Student Name	Beginning-of-Year National Percentile (NPR)	Quartile <i>(Established by beginning-of-year NPR)</i>	Beginning-of-Year Scale Score	End-of-Year Scale Score	Expected Scale Score Gain Beginning to End of Year <i>(Established by beginning-of-year quartile and research from Scantron)</i>	Actual Scale Score Gain beginning to end of year	Points +/- Expectation <i>(Zero is good/expectation met)</i>
Student 1	82	4	2,576	2,729	102.20	153	50.80
Student 2	66	3	2,426	2,591	164.34	165	0.66
Student 3	84	4	2,609	2,552	102.20	-57	-159.20
Student 4	11	1	1,865	2,361	254.67	496	241.33
Student 5	99	4	2,989	2,940	102.20	-49	-151.20
Student 6	87	4	2,632	2,777	102.20	145	42.80
Student 7	1	1	1,557	2,081	254.67	524	269.33
Student 8	75	3	2,521	2,747	164.34	226	61.66
Student 9	70	3	2,463	2,345	164.34	-118	-282.34

← Lowest ————— Highest →

Quartile 1	Quartile 2	Quartile 3	Quartile 4
NPR: 1-25	NPR: 26-50	NPR: 51-75	NPR: 76-99

NPR = national percentile rank

If a student earns a 76 NPR, that indicates his/her score is well above average.

In fact, the score is higher than approximately three-fourths of students who were in the same grade level and took the same assessment level across the nation.

50 NPR indicates an average score—one-half of students scored higher; one-half of students scored lower.



Yearly Expected Gains by Quartile in Performance Series

What score in Performance Series should be used to measure student gain?

Gains in Scantron's Performance Series should always be based on scaled scores, which range from 1300 to 3700 and span all grade levels. While gain can be measured between any two testing points, research from Scantron about the average gain to expect is based on yearly gain. Yearly gain is the difference in scale scores between the beginning-of-year testing session and the end-of-year testing session.

How is the amount of expected gain for a student established?

Within Performance Series, the scale score is used to establish a national percentile rank (NPR), which indicates how a student scored compared to his/her peers nationally. The beginning-of-year NPR establishes the student's quartile for the year (see chart above). Note that for yearly growth expectation purposes, **the student quartile is established at the beginning of the year and stays at that quartile level for expected yearly gain calculations**, even though the student may move to a different quartile after taking subsequent assessments.

Research results from Scantron establish the expected yearly scaled score gain by grade level, content area, and quartile.

Schools may also apply expected gains by assessment, grade level, and quartile to groups of students. See the examples below using results from a 5th grade reading class.

5th Grade Reading Example

Beginning-of-Year Quartile Level	Beginning-of-Year Average (Mean) Scaled Score	Expected Average Gain by Year End (<i>from Scantron Documentation</i>)	End-of-Year Average (Mean) Scaled Score	End-of-Year Minus Beginning-of-Year Average Scaled Score	Average Number of Points Above or Below Expected Gain	What it Means
Quartile 1	2198.48	169.75	2410.25	211.77	42.02	Above Expected Gain (excellent)
Quartile 2	2570.10	114.75	2650.72	80.62	-34.13	Below Expected Gain (growth occurred, but not at the expected level)
Quartile 3	2770.33	74.08	2844.41	74.08	0	Met Expected Gain (good)
Quartile 4	2654.29	39.70	2790.82	136.53	96.83	Above Expected Gain (excellent)

