# 2022 norms for MAP Growth course-specific tests in Biology

In August 2017, NWEA® released a suite of course-specific MAP® Growth™ tests. The purpose of these tests is to help districts, schools, teachers, and families understand how students are performing at a point in time and over the course of the year in a specific subject. NWEA offers several different course-specific MAP Growth tests.

To provide additional context and better support interpretation of student scores compared with other students who have taken the same test, NWEA has accumulated sufficient test data to support user norms for a subset of these course-specific tests. User norms are now available for Biology/Life Science tests. Although they are user norms and not nationally representative like the general MAP Growth norms, they provide contextual information about student performance in the fall, winter, and spring and growth between fall and spring, fall and winter, and winter and spring on these course-specific assessments.

The updated user norms will be available in the MAP Growth reporting system in Summer 2023. For now, partners can utilize the course-specific user norms by leveraging the tables in .pdf format showing achievement and growth percentiles.

Some differences between the course-specific norms and the general MAP Growth norms exist:

- The first major difference between the course-specific norms and the general MAP Growth norms is that the course-specific norms are not grade-specific. The reference group for each test's norms is the entire population of students who took the course-specific test. In contrast, the norms for MAP Growth Reading, Mathematics, Language Usage, and Science are grade-specific and adjusted for the number of instructional weeks configured by the partner. Any student who takes one of the course-specific tests will be compared to the students who took the same test during the same term during the 2019–2020, 2020–2021, and 2021–2022 testing years.
- The second major difference is that the course-specific norms are user norms, not nationally representative norms like the general norms. Nationally representative norms can be calculated when:
  - The number of responses is very large;
  - The data set includes responses from all or most US states;
  - The data set includes a distribution across urban, rural, and suburban districts and schools;
  - The data set includes large and small districts and schools; and
  - The data set includes high and low socioeconomic groups.

For nationally representative norms, the sample is "sculpted" to mirror the national population of students as a whole. Such nationally representative norms permit comparisons of individual or group performance to students across the nation.

In the case of the course-specific user norms for Biology—student performance is compared to other students who took these assessments. The volumes and representation across the previously mentioned types of districts, schools, and test takers are not robust enough to support nationally representative norms.

The table below shows the ways in which the user norms for the course-specific math tests differ from the nationally representative norms used for the MAP Growth tests.

| | COURSE-SPECIFIC | MAP GROWTH NORMS |
|---|---|---|
| **WITHIN-YEAR GROWTH NORMS** | Fall-to-spring<br>Winter-to-spring<br>Fall-to-spring | Fall-to-winter<br>Winter-to-spring<br>Fall-to-spring |
| **BETWEEN-YEAR GROWTH NORMS** | N/A | Fall-to-fall<br>Winter-to-winter<br>Spring-to-spring |
| **ACHIEVEMENT NORMS** | Fall, winter, spring norms that are not specific to a student's grade | Fall, winter, spring norms that are specific to a student's grade |
| **INSTRUCTIONAL WEEKS** | Not adjusted for instructional weeks as configured by each partner | Adjusted for instructional weeks as configured by each partner |

## FALL TO SPRING

| | | | | | | Spring Percentile and Score | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Achievement Norm Score | | | Fall-Spring Cond. Growth | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | 95 |
| Percentile | Fall | Winter | Spring | Mean | SD | 192 | 197 | 201 | 204 | 207 | 209 | 212 | 214 | 216 | 218 | 220 | 222 | 224 | 226 | 228 | 231 | 234 | 238 | 244 |
| 5 | 191 | 192 | 192 | 3.7 | 7.9 | 35 | 63 | 80 | 89 | 94 | 97 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| 10 | 196 | 197 | 197 | 3.8 | 7.9 | 15 | 38 | 57 | 72 | 82 | 89 | 93 | 96 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| 15 | 200 | 201 | 201 | 3.9 | 7.9 | 6 | 21 | 37 | 53 | 66 | 76 | 84 | 89 | 93 | 96 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| 20 | 202 | 203 | 204 | 3.9 | 7.9 | 4 | 14 | 28 | 42 | 56 | 67 | 77 | 84 | 89 | 93 | 96 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| 25 | 205 | 206 | 207 | 4.0 | 7.9 | 1 | 7 | 17 | 28 | 40 | 52 | 63 | 73 | 81 | 87 | 91 | 95 | 97 | 99 | 99 | 99 | 99 | 99 | 99 |
| 30 | 207 | 208 | 209 | 4.0 | 7.9 | 1 | 4 | 11 | 20 | 31 | 42 | 53 | 64 | 73 | 80 | 87 | 91 | 95 | 97 | 99 | 99 | 99 | 99 | 99 |
| 35 | 208 | 210 | 212 | 4.0 | 7.9 | 1 | 3 | 9 | 17 | 27 | 37 | 48 | 59 | 68 | 77 | 84 | 89 | 93 | 96 | 98 | 99 | 99 | 99 | 99 |
| 40 | 210 | 212 | 214 | 4.1 | 7.9 | 1 | 2 | 5 | 11 | 19 | 28 | 38 | 48 | 59 | 68 | 76 | 84 | 89 | 94 | 97 | 99 | 99 | 99 | 99 |
| 45 | 212 | 214 | 216 | 4.1 | 7.9 | 1 | 1 | 3 | 7 | 13 | 20 | 29 | 38 | 48 | 58 | 68 | 76 | 84 | 90 | 94 | 97 | 99 | 99 | 99 |
| 50 | 214 | 216 | 218 | 4.1 | 7.9 | 1 | 1 | 2 | 4 | 8 | 14 | 21 | 29 | 38 | 48 | 58 | 68 | 77 | 84 | 91 | 95 | 98 | 99 | 99 |
| 55 | 215 | 218 | 220 | 4.1 | 7.9 | 1 | 1 | 1 | 3 | 6 | 11 | 17 | 25 | 34 | 43 | 53 | 63 | 73 | 81 | 88 | 94 | 97 | 99 | 99 |
| 60 | 217 | 220 | 222 | 4.2 | 7.9 | 1 | 1 | 1 | 2 | 4 | 7 | 11 | 17 | 25 | 33 | 43 | 53 | 63 | 73 | 82 | 90 | 95 | 98 | 99 |
| 65 | 219 | 222 | 224 | 4.2 | 7.9 | 1 | 1 | 1 | 1 | 2 | 4 | 7 | 12 | 17 | 25 | 33 | 43 | 53 | 64 | 75 | 84 | 92 | 97 | 99 |
| 70 | 221 | 224 | 226 | 4.2 | 7.9 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 7 | 12 | 17 | 24 | 33 | 43 | 54 | 66 | 77 | 87 | 95 | 99 |
| 75 | 223 | 226 | 228 | 4.3 | 7.9 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 7 | 11 | 17 | 24 | 33 | 44 | 56 | 69 | 81 | 92 | 98 |
| 80 | 225 | 228 | 231 | 4.3 | 7.9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 7 | 11 | 17 | 25 | 34 | 46 | 59 | 73 | 87 | 97 |
| 85 | 228 | 231 | 234 | 4.3 | 7.9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 6 | 9 | 14 | 21 | 31 | 44 | 59 | 77 | 93 |
| 90 | 231 | 235 | 238 | 4.4 | 7.9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 7 | 12 | 19 | 29 | 44 | 63 | 86 |
| 95 | 236 | 240 | 244 | 4.5 | 7.9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 6 | 12 | 21 | 38 | 67 |

## FALL TO WINTER

| | | | | | | Winter Percentile and Score | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Achievement Norm Score | | | Fall-Winter Cond. Growth | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | 95 |
| Percentile | Fall | Winter | Spring | Mean | SD | 192 | 197 | 201 | 203 | 206 | 208 | 210 | 212 | 214 | 216 | 218 | 220 | 222 | 224 | 226 | 228 | 231 | 235 | 240 |
| 5 | 191 | 192 | 192 | 2.7 | 6.6 | 37 | 69 | 85 | 93 | 97 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| 10 | 196 | 197 | 197 | 2.6 | 6.6 | 14 | 40 | 62 | 77 | 87 | 93 | 96 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| 15 | 200 | 201 | 201 | 2.5 | 6.6 | 5 | 20 | 38 | 55 | 70 | 80 | 88 | 93 | 96 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| 20 | 202 | 203 | 204 | 2.5 | 6.6 | 2 | 13 | 27 | 44 | 59 | 71 | 81 | 88 | 93 | 96 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| 25 | 205 | 206 | 207 | 2.4 | 6.6 | 1 | 6 | 15 | 27 | 41 | 54 | 66 | 76 | 84 | 90 | 94 | 97 | 98 | 99 | 99 | 99 | 99 | 99 | 99 |
| 30 | 207 | 208 | 209 | 2.4 | 6.6 | 1 | 3 | 9 | 18 | 30 | 42 | 55 | 66 | 76 | 84 | 90 | 94 | 97 | 99 | 99 | 99 | 99 | 99 | 99 |
| 35 | 208 | 210 | 212 | 2.4 | 6.6 | 1 | 2 | 7 | 15 | 25 | 37 | 49 | 61 | 71 | 80 | 87 | 92 | 96 | 98 | 99 | 99 | 99 | 99 | 99 |
| 40 | 210 | 212 | 214 | 2.4 | 6.6 | 1 | 1 | 4 | 9 | 16 | 26 | 37 | 49 | 60 | 71 | 80 | 87 | 92 | 96 | 98 | 99 | 99 | 99 | 99 |
| 45 | 212 | 214 | 216 | 2.3 | 6.6 | 1 | 1 | 2 | 5 | 10 | 17 | 27 | 37 | 49 | 60 | 70 | 79 | 87 | 92 | 96 | 98 | 99 | 99 | 99 |
| 50 | 214 | 216 | 218 | 2.3 | 6.6 | 1 | 1 | 1 | 3 | 6 | 11 | 18 | 27 | 37 | 48 | 59 | 70 | 79 | 87 | 93 | 97 | 99 | 99 | 99 |
| 55 | 215 | 218 | 220 | 2.3 | 6.6 | 1 | 1 | 1 | 2 | 4 | 8 | 14 | 22 | 31 | 42 | 53 | 64 | 75 | 84 | 91 | 96 | 98 | 99 | 99 |
| 60 | 217 | 220 | 222 | 2.2 | 6.6 | 1 | 1 | 1 | 1 | 2 | 5 | 9 | 14 | 22 | 31 | 41 | 53 | 64 | 75 | 85 | 92 | 97 | 99 | 99 |
| 65 | 219 | 222 | 224 | 2.2 | 6.6 | 1 | 1 | 1 | 1 | 1 | 2 | 5 | 9 | 14 | 21 | 30 | 41 | 53 | 65 | 76 | 86 | 94 | 98 | 99 |
| 70 | 221 | 224 | 226 | 2.1 | 6.6 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 5 | 8 | 14 | 21 | 30 | 41 | 53 | 66 | 79 | 89 | 96 | 99 |
| 75 | 223 | 226 | 228 | 2.1 | 6.6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 5 | 8 | 13 | 21 | 30 | 42 | 55 | 69 | 83 | 93 | 99 |
| 80 | 225 | 228 | 231 | 2.1 | 6.6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 5 | 8 | 13 | 21 | 30 | 43 | 58 | 74 | 88 | 98 |
| 85 | 228 | 231 | 234 | 2.0 | 6.6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 6 | 10 | 17 | 27 | 40 | 58 | 77 | 94 |
| 90 | 231 | 235 | 238 | 2.0 | 6.6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 8 | 14 | 25 | 40 | 62 | 87 |
| 95 | 236 | 240 | 244 | 1.9 | 6.6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 8 | 16 | 33 | 65 |

## WINTER TO SPRING

| | | | | | | Spring Percentile and Score | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Achievement Norm Score | | | Winter-Spring Cond. Growth | | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | 95 |
| Percentile | Fall | Winter | Spring | Mean | SD | 192 | 197 | 201 | 204 | 207 | 209 | 212 | 214 | 216 | 218 | 220 | 222 | 224 | 226 | 228 | 231 | 234 | 238 | 244 |
| 5 | 191 | 192 | 192 | 2.8 | 7.0 | 33 | 65 | 83 | 92 | 96 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| 10 | 196 | 197 | 197 | 2.6 | 7.0 | 13 | 38 | 60 | 76 | 86 | 92 | 96 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| 15 | 200 | 201 | 201 | 2.4 | 7.0 | 5 | 20 | 38 | 56 | 70 | 81 | 88 | 93 | 96 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| 20 | 202 | 203 | 204 | 2.3 | 7.0 | 3 | 13 | 28 | 45 | 60 | 72 | 82 | 89 | 93 | 96 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| 25 | 205 | 206 | 207 | 2.2 | 7.0 | 1 | 6 | 16 | 29 | 43 | 57 | 69 | 79 | 86 | 91 | 95 | 97 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| 30 | 207 | 208 | 209 | 2.1 | 7.0 | 1 | 3 | 10 | 21 | 33 | 46 | 59 | 70 | 79 | 86 | 92 | 95 | 98 | 99 | 99 | 99 | 99 | 99 | 99 |
| 35 | 208 | 210 | 212 | 2.1 | 7.0 | 1 | 2 | 6 | 14 | 24 | 35 | 48 | 59 | 70 | 79 | 86 | 92 | 96 | 98 | 99 | 99 | 99 | 99 | 99 |
| 40 | 210 | 212 | 214 | 2.0 | 7.0 | 1 | 1 | 4 | 9 | 16 | 26 | 37 | 49 | 60 | 71 | 80 | 87 | 92 | 96 | 98 | 99 | 99 | 99 | 99 |
| 45 | 212 | 214 | 216 | 1.9 | 7.0 | 1 | 1 | 2 | 5 | 10 | 18 | 27 | 38 | 49 | 60 | 71 | 80 | 87 | 93 | 96 | 99 | 99 | 99 | 99 |
| 50 | 214 | 216 | 218 | 1.8 | 7.0 | 1 | 1 | 1 | 3 | 6 | 12 | 19 | 28 | 38 | 50 | 61 | 71 | 81 | 88 | 94 | 97 | 99 | 99 | 99 |
| 55 | 215 | 218 | 220 | 1.7 | 7.0 | 1 | 1 | 1 | 1 | 3 | 7 | 12 | 19 | 28 | 39 | 50 | 61 | 72 | 82 | 89 | 95 | 98 | 99 | 99 |
| 60 | 217 | 220 | 222 | 1.7 | 7.0 | 1 | 1 | 1 | 1 | 2 | 4 | 8 | 13 | 20 | 29 | 39 | 51 | 62 | 74 | 83 | 91 | 96 | 99 | 99 |
| 65 | 219 | 222 | 224 | 1.6 | 7.0 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 8 | 13 | 20 | 29 | 40 | 52 | 64 | 76 | 86 | 94 | 98 | 99 |
| 70 | 221 | 224 | 226 | 1.5 | 7.0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 5 | 8 | 13 | 20 | 30 | 41 | 53 | 66 | 79 | 89 | 96 | 99 |
| 75 | 223 | 226 | 228 | 1.4 | 7.0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 5 | 8 | 14 | 21 | 31 | 42 | 56 | 70 | 83 | 94 | 99 |
| 80 | 225 | 228 | 231 | 1.4 | 7.0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 5 | 8 | 14 | 22 | 32 | 45 | 60 | 76 | 90 | 98 |
| 85 | 228 | 231 | 234 | 1.2 | 7.0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 7 | 12 | 19 | 29 | 44 | 61 | 80 | 95 |
| 90 | 231 | 235 | 238 | 1.1 | 7.0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 8 | 14 | 24 | 39 | 61 | 87 |
| 95 | 236 | 240 | 244 | 1.0 | 7.0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 8 | 17 | 35 | 67 |

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