

Achievement and Growth Norms for English MAP Reading Fluency Foundational Skills

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1. Introduction

1.1. Purpose of the Study

This report documents the norming study procedure used to produce the achievement and growth user norms for English MAP[®] Reading Fluency[™] Foundational Skills that includes measures in three domains: Phonological Awareness, Phonics & Word Recognition, and Language Comprehension. This report also provides snapshots of the achievement and growth norms for each grade and domain that are available on score reports. The norming procedure used in this study was a model-based procedure employed in the course-specific MAP Growth Mathematics norming study (Thum & He, 2019).

For each domain, achievement and growth norms were developed for Grades K–3. These norms allow educators to compare achievement—and changes in achievement between test occasions (i.e., growth)—to students' performance in the same grade at a comparable instructional stage of the school year. In achievement norms, a student's performance on the MAP Reading Fluency test is associated with a percentile ranking that shows how well the student performed in a domain compared to students in the norming group. The relative evaluation of a student's growth from one period to another (e.g., from fall to spring) is provided by growth norms. The achievement norms cover three terms (fall, winter, and spring), and the growth norms cover fall-to-winter, winter-to-spring, and fall-to-spring growth within a grade level.

1.2. English MAP Reading Fluency Overview

MAP Reading Fluency is a multistage adaptive assessment that supports students on their path to reading comprehension by assessing and helping to improve both oral reading fluency and foundational reading skills. Students typically take the MAP Reading Fluency assessment three times a year in the fall, winter, and spring and receive easier or more difficult tasks based on their performance on previous tasks. There are both English and Spanish versions of the assessment.¹ The English assessment was piloted in 2016–2017, with an early adopter program released in 2017–2018. It became available to the public in 2018–2019.

While teachers can choose from various test forms, Adaptive Oral Reading is the default form that routes students to either the Oral Reading Fluency track if they are ready to read passages or to the Foundational Skills track if they are not. Teachers can also directly assign students to either track. Table 1.1 presents the measures assessed in each domain of the Foundational Skills track for the English version. As shown in the table, each Foundational Skills test event includes a subset of measures in Phonological Awareness and Phonics & Word Recognition, selected adaptively based on performance within a progression of skills.

All Foundational Skills items are scored dichotomously. The Rasch model was used for item calibration. Student ability estimates were put onto a scale with a mean of 500 and a standard deviation of 10 using the Winter 2020 ability estimates as the reference term. Scores in each domain can be compared across grades.

¹ The norms in this report are only applicable to the English version.

Table 1.1. Measures Assessed in Each Domain of Foundational Skills

Domain	Measure
Phonological Awareness	Rhyming Words Counting Syllables Onset-Rime Blending Initial Sound Matching Phoneme Blending Phoneme Counting Phoneme Addition/Deletion Phoneme Substitution
Phonics & Word Recognition	Letter Knowledge Letter-Sound Fluency Build Words: One Letter Word Families: Initial Letter Decoding: CVC Build Words: CVC Decoding: Single Syllable Build Words: Single Syllable Sentence Reading Fluency*
Language Comprehension	Picture Vocabulary Listening Comprehension

*Sentence Reading Fluency measure is not used in the students' Phonics & Word Recognition score.

2. Methodology

2.1. Norming Sample

This norming study used the Phonological Awareness, Phonics & Word Recognition, and Language Comprehension test events administered to Grades K–3 students in the 2018–2019 school year. This choice was made from the following considerations:

1. The participation rate in the spring testing of the 2019–2020 school year when the COVID-19 pandemic was at its onset was extremely low.
2. Research findings (e.g., Kuhfeld et al., 2022; Lewis et al., 2021) suggest that student learning in reading and mathematics was disrupted by the pandemic, particularly for younger students in the elementary grades. Although the student’s achievement loss due to pandemic is recovering, their academic gains in 2020–2021 school year were lower relative to a typical year and the rate of average gains stalled more between winter and spring (Lewis et al., 2021).
3. The 2018–2019 school year was the most recent academic year that was unaffected by COVID-19, thus serving as the most appropriate point of reference to understand student achievement and growth in early reading foundational skills under a typical educational setting.

The test events of interest were scored in early 2020 in an effort to calibrate and score the Foundational Skills measures (Bo & Simpson, 2020). Test scores with person infit statistics larger than 2 were excluded from use. Table 2.1 presents the number and percentage of test events by domain, term, and grade included in this study. In comparison, Grade 3 had the fewest test events, most likely because most Grade 3 students have progressed well beyond foundational reading skills. Table 2.2 presents the number and percentage of students in the norming study sample by gender and race. The *n*-counts differ from the totals in Table 2.1 because Table 2.2 counts unique students only once across terms. In general, the norming sample had slightly more male students than female students across all grades. Students in the norming sample came from 46 states.

Table 2.1. Number and Percentage of Test Events in Norming Sample

Domain	Term	Test Events by Grade							
		K		1		2		3	
		<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Phonological Awareness	Fall 2018	11,533	17.6	22,979	32.8	12,756	38.0	4,138	46.0
	Winter 2019	25,646	39.1	26,853	38.3	12,008	35.8	2,813	31.3
	Spring 2019	28,462	43.4	20,321	29.0	8,824	26.3	2,036	22.7
	Total	65,641	100.0	70,153	100.0	33,588	100.0	8,987	100.0
Phonics & Word Recognition	Fall 2018	11,652	17.7	23,070	32.8	12,795	38.0	4,145	46.0
	Winter 2019	25,752	39.0	26,930	38.3	12,046	35.8	2,822	31.3
	Spring 2019	28,603	43.3	20,384	29.0	8,847	26.3	2,041	22.7
	Total	66,007	100.0	70,384	100.0	33,688	100.0	9,008	100.0
Language Comprehension	Fall 2018	11,675	17.7	23,055	32.8	12,783	38.0	4,146	46.1
	Winter 2019	25,776	39.0	26,917	38.3	12,042	35.8	2,819	31.3
	Spring 2019	28,590	43.3	20,360	29.0	8,842	26.3	2,037	22.6
	Total	66,041	100.0	70,332	100.0	33,667	100.0	9,002	100.0

Table 2.2. Norming Sample Demographics

Demographic Subgroup	Students by Grade							
	K		1		2		3	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Gender								
Female	15,389	49.0	19,302	48.9	10,190	47.5	2,861	45.6
Male	15,991	50.9	20,108	51.0	11,235	52.4	3,412	54.3
Missing or Not Specified	12	–	23	0.1	13	0.1	5	0.1
Total	31,329	100.0	39,433	100.0	21,438	100.0	6,278	100.0
Race								
African American/Black	5,490	17.5	7,101	18.0	4,602	21.5	1,428	22.7
Asian	1,741	5.5	1,780	4.5	846	3.9	106	1.7
Hispanic	7,245	23.1	7,664	19.4	4,446	20.7	1,282	20.4
Native American	718	2.3	914	2.3	713	3.3	388	6.2
White	12,628	40.2	17,021	43.2	8,226	38.4	2,346	37.4
Missing or Not Specified	3,570	11.4	4,953	12.6	2,605	12.2	728	11.6
Total	31,392	100.0	39,433	100.0	21,438	100.0	6,278	100.0

2.2. Norming Procedure

The model-based approach described in Thum and He (2019) was used to develop both the achievement and growth user norms. Using a multivariate true score model that accounts for the known imprecision of scores from the fall, winter, and spring terms from students in the selected norming population, this approach provides students in each grade achievement norms in each term and growth norms for academic gains between different terms, including fall to winter, winter to spring, and fall to spring. The true score model is expressed as follows:

$$y_{qi} = \mu_{qi} + e_{qi} \tag{1}$$

where y_{qi} is the observed score for student i in each of q term ($q = 1$ to 3 for fall, winter, and spring, respectively); μ_{qi} is the true score for student i in each of q term; and e_{qi} is the error score for student i in each of q term. The imprecision of observed scores is considered in the analysis by introducing the standard error of measurement of each score (s_{qi}) into the model, such that:

$$Var(e_{qi}) = s_{qi}^2 \tag{2}$$

True scores of students are assumed to have a multivariate normal sampling distribution with means of $\boldsymbol{\gamma}_i$ and variances of \boldsymbol{T} in the user population. Their parameter estimates $\hat{\boldsymbol{\gamma}}$, $Var(\hat{\boldsymbol{\gamma}})$, and $\hat{\boldsymbol{T}}$, which can be obtained by standard statistics packages such as SAS via PROC MIXED, define the joint distribution of predicted fall, winter, and spring scores in Equation 3 in the user norming population:

$$\hat{\boldsymbol{\mu}}_i \sim MVN[\hat{\boldsymbol{\gamma}}, Var(\hat{\boldsymbol{\gamma}}) + \hat{\boldsymbol{T}}] \tag{3}$$

The joint distribution provides the basis to build achievement and growth norms. The achievement norms for the scores of each term in each grade can be derived from the predicted marginal distributions, as are the marginal growth norms. The conditional growth for students on a given term can be obtained as the predicted distribution.

3. Results

3.1. Descriptive Statistics of Test Scores

Table 3.1 presents descriptive statistics of the test scores by domain, term, and grade in the norming sample, including the mean (average) test score, standard deviation (SD), and number of test events (*N*). For each domain, test scores in general increased across terms and grades. As students advanced to a higher grade (e.g., from Grades 2 to Grade 3), less cross-grade and within-grade growth was observed.

Table 3.1. Descriptive Statistics of Test Scores in the Norming Sample

Domain	Term	Grade K			Grade 1			Grade 2			Grade 3		
		Mean	SD	<i>N</i>	Mean	SD	<i>N</i>	Mean	SD	<i>N</i>	Mean	SD	<i>N</i>
Phonological Awareness	Fall 2018	488.65	7.53	11,533	499.60	8.30	22,979	503.32	7.96	12,756	504.45	8.29	4,138
	Winter 2019	494.42	8.57	25,646	502.76	8.62	26,853	504.76	8.62	12,008	505.77	8.68	2,813
	Spring 2019	498.31	9.05	28,462	503.83	8.66	20,321	505.49	9.21	8,824	505.96	9.32	2,036
Phonics & Word Recognition	Fall 2018	487.01	7.53	11,652	499.83	7.94	23,070	504.73	7.65	12,795	506.42	7.83	4,145
	Winter 2019	494.02	8.12	25,752	503.00	7.86	26,930	505.93	8.10	12,046	506.72	8.34	2,822
	Spring 2019	498.29	8.23	28,603	504.09	7.80	20,384	506.27	8.41	8,847	506.91	8.72	2,041
Language Comprehension	Fall 2018	492.36	8.14	11,675	499.38	9.30	23,055	503.04	9.20	12,783	504.59	9.51	4,146
	Winter 2019	495.30	8.99	25,776	501.56	9.34	26,917	503.92	9.48	12,042	505.12	9.60	2,819
	Spring 2019	498.50	9.25	28,590	502.86	9.34	20,360	504.62	9.65	8,842	504.76	10.36	2,037

3.2. Pearson Correlation Coefficients

Table 3.2 presents the number of test events and the corresponding Pearson correlation coefficients of scores across different terms by domain and grade after listwise deletion (i.e., the calculation was conducted only using students who had scores in all three terms). These coefficients range between 0.48 and 0.68 for Phonological Awareness, 0.55 and 0.82 for Phonics & Word Recognition, and 0.54 and 0.63 for Language Comprehension. These results suggest that, in general, the scores in different terms were moderately correlated.

Table 3.2. Person Correlation Coefficients (*r*) among 2018–2019 Fall, Winter, and Spring Scores

Domain	Grade	<i>N</i>	<i>r</i>		
			Fall, Winter	Winter, Spring	Fall, Spring
Phonological Awareness	K	9,466	0.53	0.67	0.48
	1	8,265	0.60	0.65	0.56
	2	2,898	0.65	0.65	0.57
	3	680	0.68	0.72	0.62
Phonics & Word Recognition	K	9,282	0.63	0.76	0.55
	1	8,188	0.72	0.77	0.66
	2	2,880	0.79	0.78	0.73
	3	675	0.82	0.81	0.76
Language Comprehension	K	9,495	0.56	0.60	0.54
	1	8,258	0.57	0.59	0.55
	2	2,894	0.59	0.61	0.58
	3	678	0.63	0.57	0.59

3.3. Normality Assumption

The reasonableness of the joint normality assumption of scores is important for inferences based on the multivariate true score models. As such, a series of measures and tools were employed to evaluate normality, such as Quantile-Quantile (Q-Q) plots, cumulative distribution function (CDF) curves for scores, and residuals from model estimation. Due to space limitations, this report presents a series of graphs—including histograms, Q-Q plots, and CDF curves—based on Phonological Awareness scores (left panel of the figures) and residuals from model estimation (right panel of the figures) for Grade K students in Figure 3.1, Figure 3.2, and Figure 3.3. Figure 3.4 presents the scatterplot matrix among fall, winter, and spring Phonological Awareness scores for Grade K students. While the Q-Q plots indicate some deviations from the straight line at the tails, the figures suggest that normality assumptions of the model seem reasonable. The figures for other domains were similar to those for the Phonological Awareness scores for Grade K. Overall, the model normality assumption was met for all domains and grades of interest in this norming study.

Figure 3.1. Histograms, Q-Q Plots, and CDF Curves for Phonological Awareness Scores—Grade K, Fall 2018

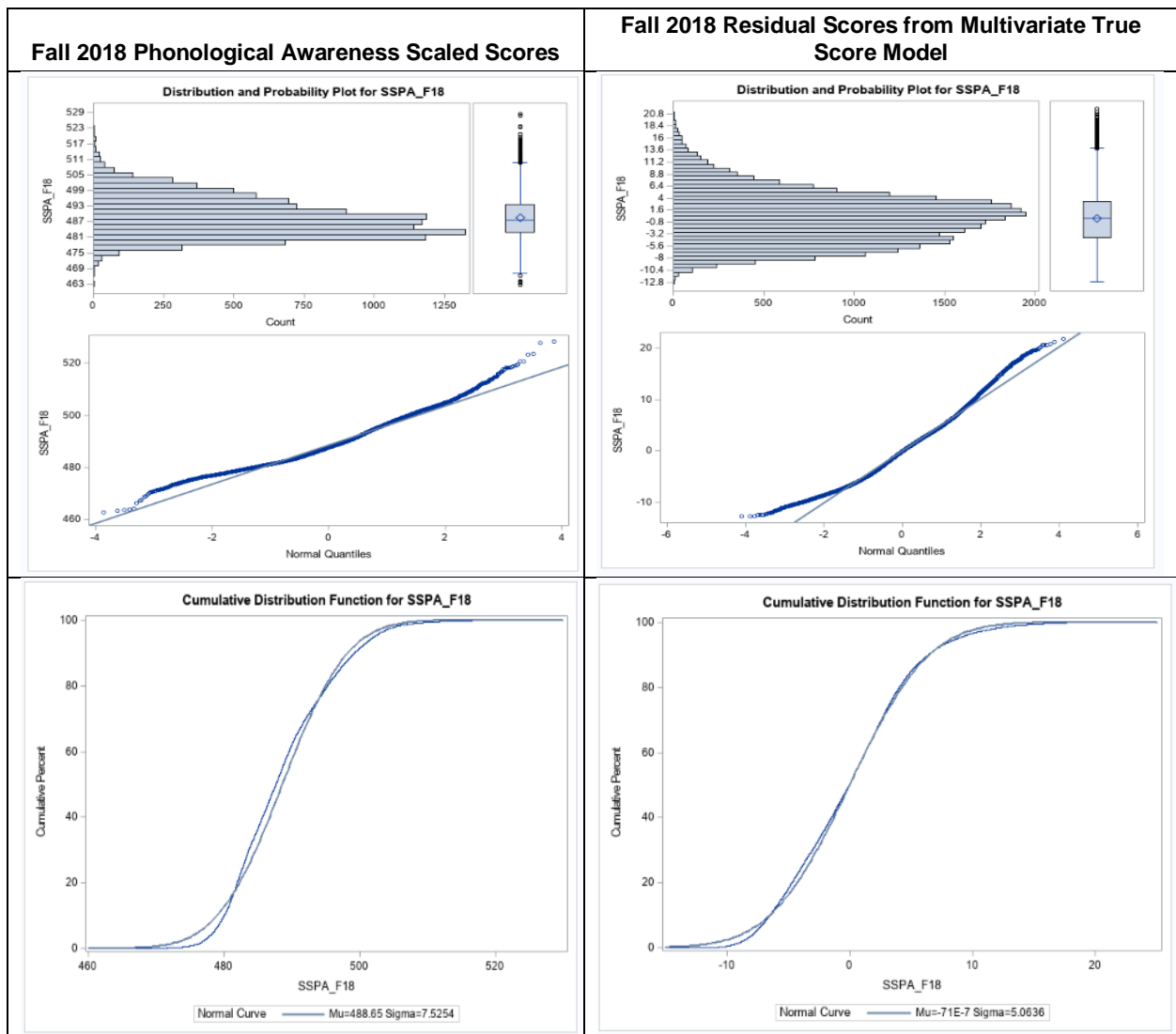


Figure 3.2. Histograms, Q-Q Plots, and CDF Curves for Phonological Awareness Scores—Grade K, Winter 2019

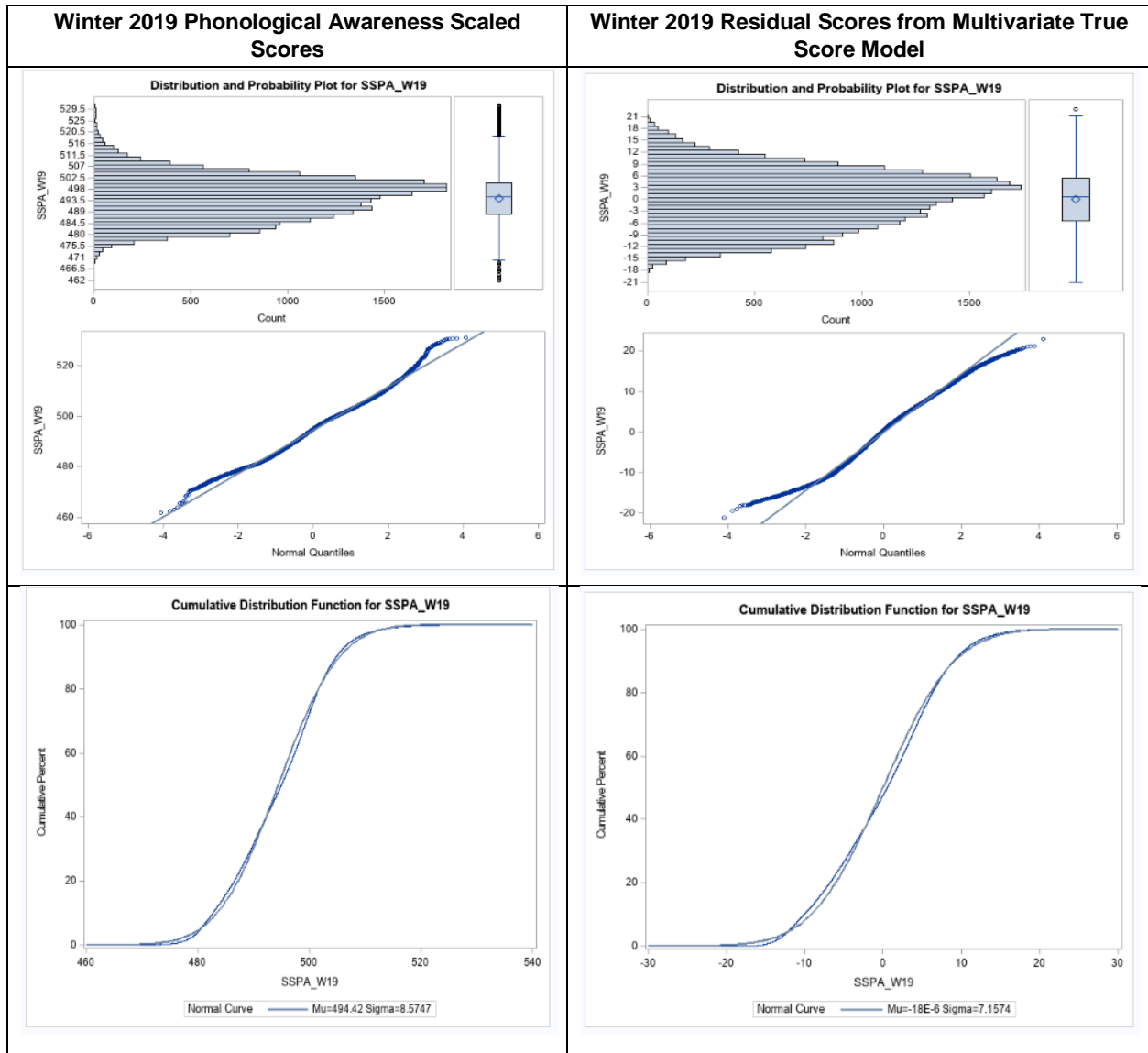


Figure 3.3. Histograms, Q-Q Plots, and CDFs for Phonological Awareness Scores—Grade K, Spring 2019

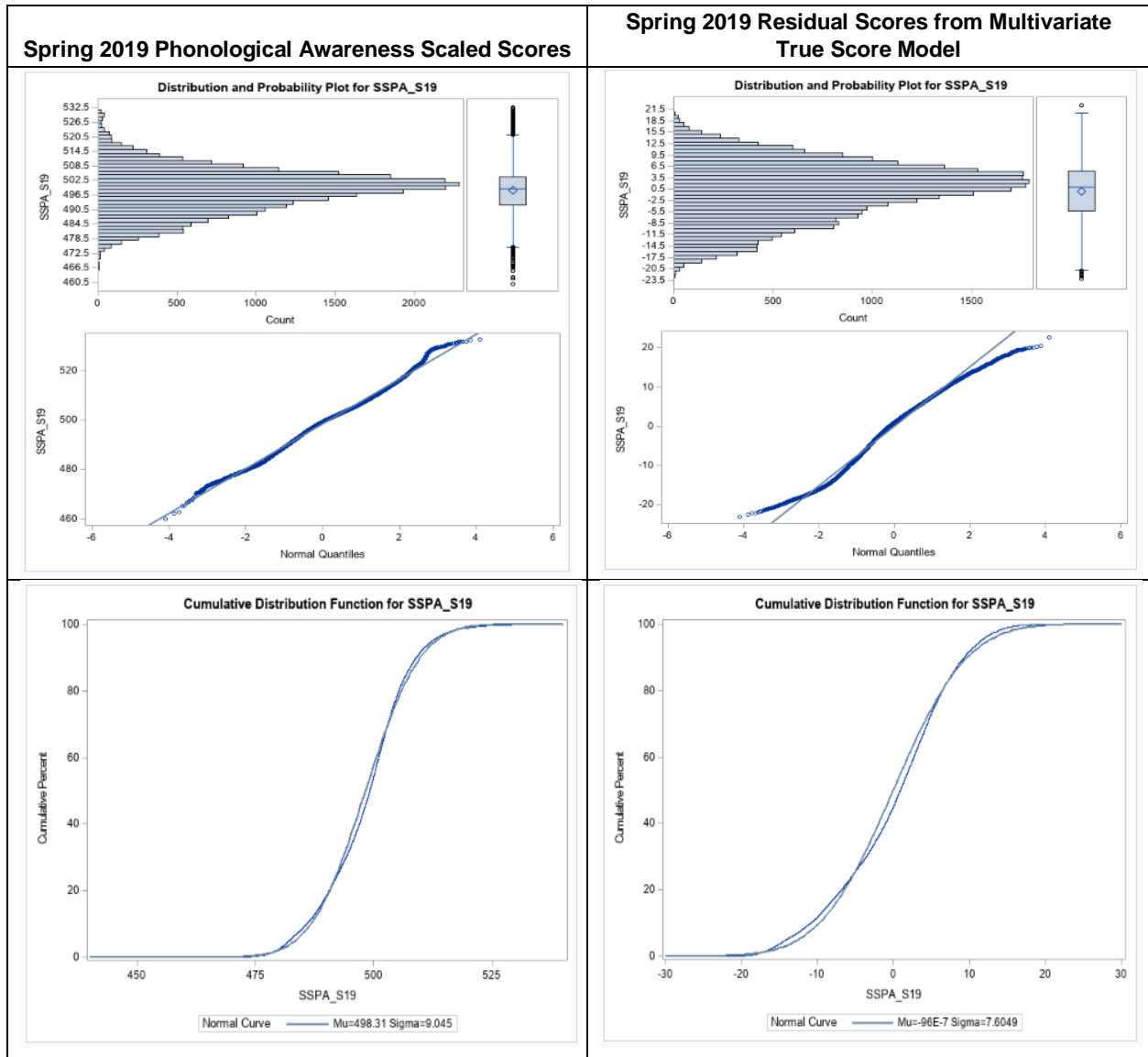
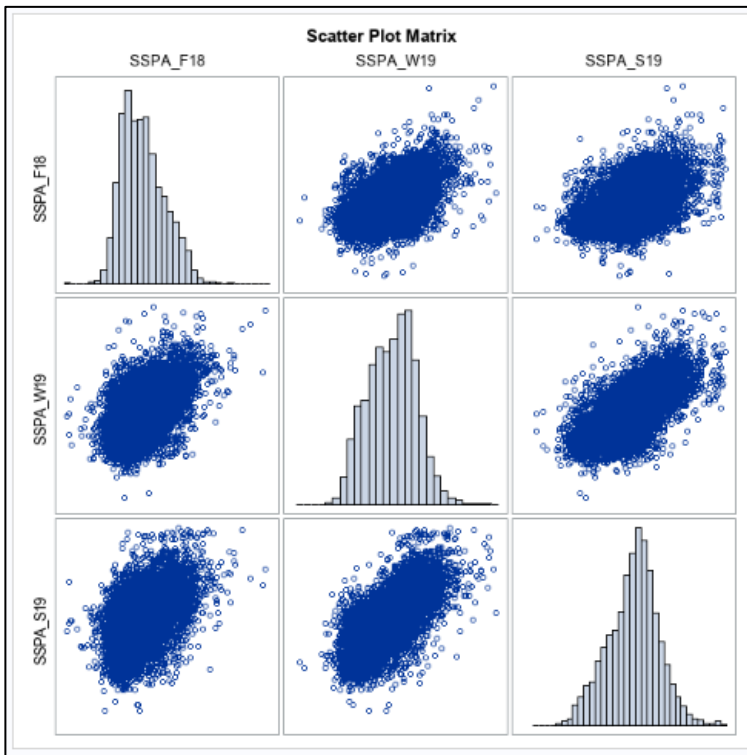
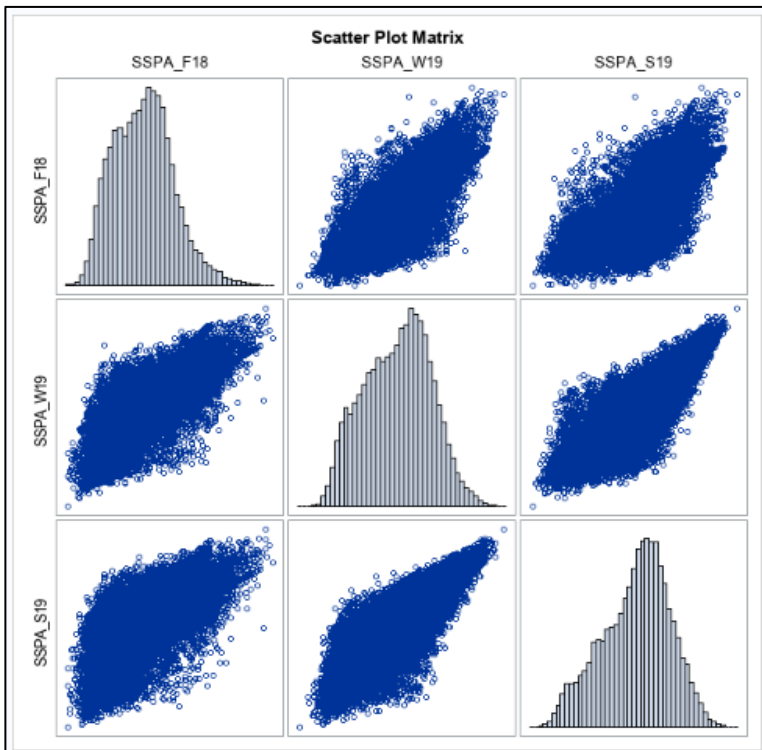


Figure 3.4. Scatterplot Matrix among Fall 2018, Winter 2019, and Spring 2019 Phonological Awareness Scores—Grade K

Scatterplot Matrix Based on PA Scaled Scores



Scatterplot Matrix Based on Multivariate True Score Model Residuals



3.4. Achievement and Growth Norms

Table 3.3 – Table 3.14 present snapshots of the achievement and growth norms for each domain in Grades K–3. Panels A, B, and C in each table present the achievement and between-term growth norms in a domain for the same grade. Here’s how to interpret the charts:

- The grey columns indicate the percentile rank ranging from 5 to 95 at an interval of 5. For ease of presentation, only a selective group of percentiles are provided. Users should instead refer to their score reports for their unique normative-referenced performance information.
- The blue columns present the achievement norm scores for each term. These stay the same across panels in a table.
- The green columns present the expected between-term growth score for a specific percentile rank score and the standard deviation (SD) of the between-term growth. These differ across panels for fall-to-winter (Panel A), winter-to-spring (Panel B), and fall-to-spring (Panel C) growth.
- The yellow and mixed-colored boxes permit a normative evaluation of the actual gain a student may have made between different terms.
 - The yellow boxes indicate the corresponding winter or spring achievement norms and the corresponding percentiles.
 - The mixed-colored boxes indicate the growth percentiles associated with the between-term growth scores.

Using a hypothetical Grade K student who scores 484, 489, and 494 in Language Comprehension domain for fall, winter, and spring, respectively, to illustrate how to interpret these tables, these scores place this student at the 15th, 25th, and 30th percentiles in fall, winter, and spring, respectively based on the grey column in Table 3.3. In other words, this student performs better than 15%, 25%, and 30% of the other Grade K students who also took the same test in each term, respectively.

As mentioned above, the yellow and mixed-colored boxes permit a normative evaluation of the actual gain a student may have made between different terms. This hypothetical student has improved 5 points from fall to winter (i.e., 484 → 489). Locating the intersection between the row where the achievement norm score in fall is 484 (in blue) and the column where the winter score is 489 (in yellow) in Panel A, the 5 fall-to-winter gain puts this student at the 53rd percentile in the fall-to-winter growth scale (in mixed-color). In other words, this student’s progress is better than 53% of all other Grade K students in the norming sample who also scored 484 in the fall (i.e., students in the 15th percentile). We can also tell that this student’s progress is above average based on the fall-to-winter expected growth for a student who scores 484 in the fall (i.e., the 15th percentile), according to the green columns in Panel A. The average gain is 4.7 points with an associated standard deviation of growth of 5.2, thus putting the student’s gain of 5 points above average. Similar interpretations for winter-to-spring and fall-to-spring growth can be made based on Panel B and Panel C, respectively.

Table 3.3. Snapshot of Norms—Language Comprehension, Grade K

A

		Winter Percentile and Score																						
Percentile	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
	Fall	Winter	Spring	Mean	SD	482	485	487	488	489	490	491	492	493	494	495	496	497	498	499	500	502	503	506
5	480	482	485	5.6	5.2	25	43	57	67	75	81	86	90	93	95	96	98	99	99	99	99	99	99	99
10	483	485	488	5.0	5.2	15	30	42	53	62	70	77	82	86	90	93	95	96	98	99	99	99	99	99
15	484	487	490	4.7	5.2	10	22	33	44	53	61	69	75	80	85	89	92	94	96	98	99	99	99	99
20	485	488	491	4.4	5.2	7	17	27	36	45	54	61	68	74	80	84	88	92	94	96	98	99	99	99
25	487	489	492	4.1	5.2	5	13	22	30	39	47	55	62	69	75	80	85	89	92	95	97	98	99	99
30	488	490	494	3.9	5.2	4	10	17	25	33	41	49	56	63	70	76	81	86	90	93	96	98	99	99
35	488	491	495	3.7	5.2	3	8	14	21	29	36	44	51	58	65	71	77	82	87	91	94	97	99	99
40	489	492	495	3.5	5.2	2	6	11	18	24	31	39	46	53	60	67	73	79	84	88	92	96	98	99
45	490	493	496	3.3	5.2	1	5	9	15	21	27	34	41	48	55	62	68	75	81	86	90	94	97	99
50	491	494	497	3.1	5.2	1	4	7	12	17	23	29	36	43	50	57	64	71	77	83	88	93	96	99
55	492	495	498	2.9	5.2	1	3	6	10	14	20	25	32	38	45	52	59	66	73	80	86	91	95	99
60	493	496	499	2.7	5.2	1	2	4	8	12	16	21	27	34	40	47	54	62	69	76	82	89	94	98
65	494	497	500	2.5	5.2	1	2	3	6	9	13	18	23	29	35	42	49	56	64	72	79	86	92	97
70	494	498	501	2.3	5.2	1	1	2	5	7	11	15	19	24	30	37	44	51	59	67	75	83	90	96
75	495	499	502	2.1	5.2	1	1	2	3	5	8	11	15	20	25	31	38	45	53	61	70	79	87	95
80	497	500	503	1.8	5.2	1	1	1	2	4	6	9	12	16	20	26	32	39	46	55	64	73	83	93
85	498	502	505	1.5	5.2	1	1	1	1	2	4	6	8	12	15	20	25	32	39	47	56	67	78	90
90	499	503	507	1.2	5.2	1	1	1	1	1	2	4	5	8	10	14	18	24	30	38	47	58	70	85
95	502	506	509	1.0	5.2	1	1	1	1	1	1	2	2	4	5	7	10	14	19	25	33	43	57	75

B

		Spring Percentile and Score																						
Percentile	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
	Fall	Winter	Spring	Mean	SD	485	488	490	491	492	494	495	495	496	497	498	499	500	501	502	503	505	507	509
5	480	482	485	5.7	4.5	29	51	66	77	84	89	93	95	97	98	99	99	99	99	99	99	99	99	99
10	483	485	488	5.2	4.5	15	33	48	61	71	78	84	89	92	95	97	98	99	99	99	99	99	99	99
15	484	487	490	4.8	4.5	9	23	36	48	59	68	76	82	87	91	94	96	97	99	99	99	99	99	99
20	485	488	491	4.5	4.5	6	16	27	39	49	59	67	75	81	86	90	93	96	97	99	99	99	99	99
25	487	489	492	4.2	4.5	4	11	21	31	41	50	59	67	75	81	86	90	93	96	98	99	99	99	99
30	488	490	494	4.0	4.5	2	8	16	24	34	43	52	60	68	75	81	86	90	94	96	98	99	99	99
35	488	491	495	3.8	4.5	2	6	12	19	27	36	45	53	61	69	76	82	87	91	94	97	99	99	99
40	489	492	495	3.6	4.5	1	4	9	15	22	30	38	47	55	63	70	77	83	88	92	95	98	99	99
45	490	493	496	3.4	4.5	1	3	6	11	18	25	32	40	48	56	64	72	78	84	90	94	97	99	99
50	491	494	497	3.2	4.5	1	2	5	9	14	20	27	34	42	50	58	66	73	80	86	91	95	98	99
55	492	495	498	3.0	4.5	1	1	3	6	11	16	22	28	36	44	52	60	68	76	83	89	94	97	99
60	493	496	499	2.8	4.5	1	1	2	5	8	12	17	23	30	37	45	54	62	70	78	85	91	96	99
65	494	497	500	2.6	4.5	1	1	2	3	6	9	13	18	24	31	39	47	55	64	73	81	88	94	99
70	494	498	501	2.4	4.5	1	1	1	2	4	6	10	14	19	25	32	40	48	57	66	76	84	92	98
75	495	499	502	2.2	4.5	1	1	1	1	3	4	7	10	14	19	26	33	41	50	59	69	79	89	97
80	497	500	503	1.9	4.5	1	1	1	1	2	3	5	7	10	14	19	25	33	41	51	61	73	84	94
85	498	502	505	1.6	4.5	1	1	1	1	1	2	3	4	6	9	13	18	24	32	41	52	64	78	91
90	499	503	507	1.2	4.5	1	1	1	1	1	1	1	2	3	5	8	11	16	22	29	39	52	67	85
95	502	506	509	1.0	4.5	1	1	1	1	1	1	1	1	2	3	5	7	11	16	23	34	49	72	92

C

		Spring Percentile and Score																						
Percentile	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
	Fall	Winter	Spring	Mean	SD	485	488	490	491	492	494	495	495	496	497	498	499	500	501	502	503	505	507	509
5	480	482	485	8.7	5.2	25	43	57	67	75	82	86	90	93	95	97	98	99	99	99	99	99	99	99
10	483	485	488	8.2	5.2	15	30	43	54	63	71	77	82	86	90	93	95	97	98	99	99	99	99	99
15	484	487	490	7.8	5.2	10	22	33	44	53	62	69	75	80	85	89	92	94	96	98	99	99	99	99
20	485	488	491	7.5	5.2	7	17	27	36	46	54	62	69	75	80	85	88	92	94	96	98	99	99	99
25	487	489	492	7.3	5.2	5	13	21	30	39	47	55	62	69	75	80	85	89	92	95	97	98	99	99
30	488	490	494	7.1	5.2	4	10	17	25	33	41	49	57	64	70	76	81	86	90	93	96	98	99	99
35	488	491	495	6.9	5.2	3	8	14	21	29	36	44	51	58	65	71	77	82	87	91	94	97	99	99
40	489	492	495	6.7	5.2	2	6	11	18	24	31	39	46	53	60	67	73	79	84	89	93	96	98	99
45	490	493	496	6.5	5.2	1	5	9	14	20	27	34	41	48	55	62	69	75	81	86	91	94	97	99
50	491	494	497	6.3	5.2	1	4	7	12	17	23	29	36	43	50	57	64	71	77	83	88	93	97	99
55	492	495	498	6.1	5.2	1	3	6	9	14	19	25	32	38	45	52	59	66	73	80	86	91	95	99
60	493	496	499	5.9	5.2	1	2	4	8	11	16	21	27	33	40	47	54	62	69	76	83	89	94	98
65	494	497	500	5.7	5.2	1	1	3	6	9	13	18	23	29	35	42	49	56	64	72	79	86	92	97
70	494	498	501	5.5	5.2	1	1	2	4	7	10	14	19	24	30	37	43	51	59	67	75	83	90	96
75	495	499	502	5.3	5.2	1	1	2	3	5	8	11	15	20	25	31	38	45	53	61	70	79	87	95
80	497	500	503	5.1	5.2	1	1	1	2	4	6	8	12	16	20	25	32	38	46	55	64	73	83	93
85	498	502	505	4.8	5.2	1	1	1	1	2	4	6	8	11	15	20	25	31	39	47	56	67	78	90
90	499	503	507	4.4	5.2	1	1	1	1	1	2	3	5	7	10	14	18	23	30	37	46	57	70	85
95	502	506	509	3.9	5.2	1	1	1	1	1	1	1	2	4	5	7	10	14	18	25	33	43	57	75

Table 3.4. Snapshot of Norms—Language Comprehension, Grade 1

A

Percentile	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																		
	Fall	Winter	Spring	Mean	SD	488	491	492	494	495	496	497	498	499	500	501	502	503	504	505	506	508	509	512
5	485	488	490	5.5	4.7	27	49	64	74	82	87	91	94	96	98	98	99	99	99	99	99	99	99	99
10	488	491	493	4.8	4.7	15	32	47	59	68	76	82	87	91	94	96	97	98	99	99	99	99	99	99
15	490	492	494	4.4	4.7	9	22	35	47	57	66	74	80	85	89	92	95	97	98	99	99	99	99	99
20	491	494	496	4.1	4.7	6	16	27	38	48	57	66	73	79	84	88	92	95	97	98	99	99	99	99
25	492	495	497	3.8	4.7	4	12	21	31	40	50	58	66	73	79	84	88	92	95	97	98	99	99	99
30	493	496	498	3.5	4.7	3	9	16	25	34	42	51	59	67	73	79	85	89	93	95	97	99	99	99
35	495	497	499	3.3	4.7	2	6	13	20	28	36	44	53	60	68	74	80	86	90	93	96	98	99	99
40	495	498	500	3.0	4.7	1	5	10	16	23	30	38	46	54	62	69	76	82	87	91	95	97	99	99
45	496	499	501	2.8	4.7	1	3	7	12	18	25	33	40	48	56	64	71	77	83	88	93	96	98	99
50	497	500	502	2.6	4.7	1	2	5	10	15	21	28	35	42	50	58	65	73	79	85	90	95	98	99
55	498	501	503	2.4	4.7	1	2	4	7	12	17	23	29	37	44	52	60	67	75	82	88	93	97	99
60	499	502	504	2.1	4.7	1	1	3	5	9	13	18	24	31	38	46	54	62	70	77	84	91	95	99
65	500	503	505	1.9	4.7	1	1	2	4	7	10	15	20	26	32	40	47	56	64	72	80	88	94	98
70	501	504	506	1.7	4.7	1	1	1	3	5	8	11	16	21	27	33	41	49	58	66	75	84	91	97
75	502	505	507	1.4	4.7	1	1	1	2	3	5	8	12	16	21	27	34	42	51	60	69	79	88	96
80	504	506	508	1.1	4.7	1	1	1	1	2	4	6	8	12	16	21	27	34	43	52	62	73	84	94
85	505	508	509	1.0	4.7	1	1	1	1	1	2	3	5	8	11	15	20	26	34	43	53	65	78	91
90	507	509	511	1.0	4.7	1	1	1	1	1	2	3	4	6	9	13	18	24	32	41	53	68	85	
95	509	512	514	1.0	4.7	1	1	1	1	1	1	1	1	2	3	4	6	9	13	18	26	37	51	73

B

Percentile	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																		
	Fall	Winter	Spring	Mean	SD	490	493	494	496	497	498	499	500	501	502	503	504	505	506	507	508	509	511	514
5	485	488	490	4.0	3.9	32	58	74	84	91	95	97	98	99	99	99	99	99	99	99	99	99	99	99
10	488	491	493	3.6	3.9	15	35	53	67	77	85	90	94	96	98	99	99	99	99	99	99	99	99	99
15	490	492	494	3.3	3.9	8	22	38	52	64	74	82	88	92	95	97	98	99	99	99	99	99	99	99
20	491	494	496	3.0	3.9	4	14	27	40	53	63	73	80	86	91	94	96	98	99	99	99	99	99	99
25	492	495	497	2.8	3.9	2	9	19	31	42	53	63	72	79	85	90	94	96	98	99	99	99	99	99
30	493	496	498	2.6	3.9	1	6	14	23	33	44	54	64	72	79	85	90	94	96	98	99	99	99	99
35	495	497	499	2.5	3.9	1	4	9	17	26	36	46	55	64	73	80	86	91	94	97	99	99	99	99
40	495	498	500	2.3	3.9	1	2	6	12	20	28	38	47	57	65	74	81	87	91	95	98	99	99	99
45	496	499	501	2.1	3.9	1	2	4	9	15	22	30	39	49	58	67	75	82	88	93	96	98	99	99
50	497	500	502	2.0	3.9	1	1	3	6	11	17	24	32	41	50	59	68	76	84	90	94	97	99	99
55	498	501	503	1.8	3.9	1	1	2	4	7	12	18	25	33	42	52	61	70	78	85	91	96	99	99
60	499	502	504	1.7	3.9	1	1	1	3	5	9	13	19	27	35	44	53	63	72	80	88	94	98	99
65	500	503	505	1.5	3.9	1	1	1	2	3	6	9	14	20	27	36	45	55	65	74	83	91	96	99
70	501	504	506	1.3	3.9	1	1	1	1	2	4	6	10	15	21	28	36	46	56	67	77	87	94	99
75	502	505	507	1.1	3.9	1	1	1	1	1	2	4	6	10	15	21	28	37	47	58	69	81	91	98
80	504	506	508	1.0	3.9	1	1	1	1	1	1	2	4	6	9	14	20	27	37	48	60	73	86	96
85	505	508	509	1.0	3.9	1	1	1	1	1	1	1	2	3	5	8	13	18	26	36	48	62	78	92
90	507	509	511	1.0	3.9	1	1	1	1	1	1	1	1	1	2	4	6	10	15	23	33	47	65	85
95	509	512	514	1.0	3.9	1	1	1	1	1	1	1	1	1	1	2	3	6	9	16	26	42	69	

C

Percentile	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																		
	Fall	Winter	Spring	Mean	SD	490	493	494	496	497	498	499	500	501	502	503	504	505	506	507	508	509	511	514
5	485	488	490	7.9	4.9	26	46	61	71	79	85	89	92	95	97	98	99	99	99	99	99	99	99	99
10	488	491	493	7.2	4.9	15	31	45	56	66	74	80	85	89	92	95	96	98	99	99	99	99	99	99
15	490	492	494	6.7	4.9	10	22	34	46	56	64	72	78	83	87	91	94	96	97	98	99	99	99	99
20	491	494	496	6.3	4.9	6	16	27	37	47	56	64	71	77	82	87	90	93	96	97	99	99	99	99
25	492	495	497	5.9	4.9	4	12	21	31	40	49	57	64	71	77	82	87	91	94	96	98	99	99	99
30	493	496	498	5.6	4.9	3	9	17	25	34	42	50	58	65	72	78	83	88	91	94	97	98	99	99
35	495	497	499	5.3	4.9	2	7	13	20	28	36	44	52	59	66	73	79	84	89	92	95	98	99	99
40	495	498	500	5.1	4.9	2	5	10	17	24	31	38	46	54	61	68	74	80	86	90	94	97	99	99
45	496	499	501	4.8	4.9	1	4	8	13	19	26	33	41	48	56	63	70	76	82	87	92	95	98	99
50	497	500	502	4.6	4.9	1	3	6	11	16	22	28	35	43	50	57	65	72	78	84	90	94	97	99
55	498	501	503	4.3	4.9	1	2	5	8	13	18	24	30	37	45	52	59	67	74	81	87	92	96	99
60	499	502	504	4.1	4.9	1	1	3	6	10	15	20	26	32	39	46	54	62	69	77	84	90	95	99
65	500	503	505	3.8	4.9	1	1	3	5	8	11	16	21	27	34	41	48	56	64	72	80	87	93	98
70	501	504	506	3.5	4.9	1	1	2	3	6	9	13	17	22	28	35	42	50	58	67	75	83	91	97
75	502	505	507	3.2	4.9	1	1	1	2	4	6	9	13	18	23	29	36	43	52	60	70	79	88	96
80	504	506	508	2.9	4.9	1	1	1	2	3	4	7	10	13	18	23	29	36	44	53	63	73	84	94
85	505	508	509	2.5	4.9	1	1	1	1	2	3	4	7	9	13	17	22	29	36	45	54	66	78	90
90	507	509	511	2.0	4.9	1	1	1	1	1	1	2	4	6	8	11	15	20	26	34	44	55	69	85
95	509	512	514	2.0	4.9	1	1	1	1	1	1	1	1	2	4	5	8	11	15	21	29	39	54	74

Table 3.5. Snapshot of Norms—Language Comprehension, Grade 2

A

Percentile	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
	Fall	Winter	Spring	Mean	SD	490	493	494	496	497	498	499	500	501	502	503	504	505	506	507	508	510	512	514
5	489	490	491	3.5	4.6	29	51	67	77	85	90	93	96	97	98	99	99	99	99	99	99	99	99	
10	492	493	494	3.0	4.6	15	33	49	61	71	79	85	89	93	95	97	98	99	99	99	99	99	99	
15	493	494	496	2.7	4.6	9	23	36	49	59	69	76	82	87	91	94	96	98	99	99	99	99	99	
20	495	496	497	2.5	4.6	6	16	27	39	50	59	68	75	81	86	90	93	96	97	99	99	99	99	
25	496	497	498	2.3	4.6	4	11	21	31	41	51	60	68	75	81	86	90	93	96	98	99	99	99	
30	497	498	500	2.1	4.6	2	8	16	24	34	43	52	60	68	75	81	86	91	94	96	98	99	99	
35	498	499	501	1.9	4.6	1	6	12	19	27	36	45	53	62	69	76	82	87	91	95	97	99	99	
40	499	500	502	1.7	4.6	1	4	9	15	22	30	38	47	55	63	70	77	83	88	92	96	98	99	
45	500	501	503	1.6	4.6	1	3	6	11	17	24	32	40	48	57	64	72	79	85	90	94	97	99	
50	501	502	504	1.4	4.6	1	2	5	8	14	20	26	34	42	50	58	66	74	81	87	92	96	98	
55	502	503	504	1.3	4.6	1	1	3	6	10	15	21	28	36	44	52	60	68	76	83	89	94	97	
60	503	504	505	1.1	4.6	1	1	2	4	8	12	17	23	30	37	45	53	62	70	78	85	91	96	
65	503	505	506	1.0	4.6	1	1	1	3	6	9	13	18	24	31	39	47	55	64	73	81	88	95	
70	504	506	507	1.0	4.6	1	1	1	2	4	6	10	14	19	25	32	40	48	57	66	76	85	92	
75	506	507	509	1.0	4.6	1	1	1	1	2	4	7	10	14	19	25	32	40	49	59	69	80	89	
80	507	508	510	1.0	4.6	1	1	1	1	1	3	4	7	10	14	19	25	32	41	51	61	73	84	
85	508	510	511	1.0	4.6	1	1	1	1	1	1	2	4	6	9	13	18	24	31	41	51	64	78	
90	510	512	513	1.0	4.6	1	1	1	1	1	1	1	2	3	5	7	11	15	21	29	39	51	67	
95	512	514	516	1.0	4.6	1	1	1	1	1	1	1	1	1	2	3	4	7	10	15	23	33	49	

B

Percentile	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
	Fall	Winter	Spring	Mean	SD	491	494	496	497	498	500	501	502	503	504	504	505	506	507	509	510	511	513	516
5	489	490	491	3.1	3.9	32	60	77	87	92	96	98	99	99	99	99	99	99	99	99	99	99	99	
10	492	493	494	2.7	3.9	14	36	55	69	79	87	92	95	97	98	99	99	99	99	99	99	99	99	
15	493	494	496	2.5	3.9	7	22	39	54	66	76	84	89	93	96	98	99	99	99	99	99	99	99	
20	495	496	497	2.3	3.9	4	14	27	41	54	65	74	82	88	92	95	97	98	99	99	99	99	99	
25	496	497	498	2.1	3.9	2	9	19	31	43	54	65	74	81	87	91	95	97	98	99	99	99	99	
30	497	498	500	1.9	3.9	1	5	13	22	33	44	55	65	74	81	87	91	95	97	99	99	99	99	
35	498	499	501	1.8	3.9	1	3	9	16	25	35	46	56	65	74	81	87	92	95	97	99	99	99	
40	499	500	502	1.6	3.9	1	2	6	11	19	28	37	47	57	66	75	82	88	93	96	98	99	99	
45	500	501	503	1.5	3.9	1	1	4	8	14	21	30	39	49	58	68	76	83	89	94	97	99	99	
50	501	502	504	1.4	3.9	1	1	2	5	10	16	23	31	40	50	60	69	77	85	91	95	98	99	
55	502	503	504	1.2	3.9	1	1	1	3	7	11	17	24	33	42	51	61	71	79	86	92	96	99	
60	503	504	505	1.1	3.9	1	1	1	2	4	8	12	18	25	34	43	53	63	72	81	89	94	98	
65	503	505	506	1.0	3.9	1	1	1	1	3	5	8	13	19	26	35	44	54	65	75	84	92	97	
70	504	506	507	1.0	3.9	1	1	1	1	2	3	5	9	13	19	27	35	45	56	67	78	87	95	
75	506	507	509	1.0	3.9	1	1	1	1	1	2	3	5	9	13	19	27	35	46	57	70	81	91	
80	507	508	510	1.0	3.9	1	1	1	1	1	1	2	3	5	8	12	18	26	35	46	59	73	86	
85	508	510	511	1.0	3.9	1	1	1	1	1	1	1	1	3	4	7	11	17	24	34	46	61	78	
90	510	512	513	1.0	3.9	1	1	1	1	1	1	1	1	1	2	3	5	8	13	21	31	45	64	
95	512	514	516	1.0	3.9	1	1	1	1	1	1	1	1	1	1	1	2	4	8	14	24	40	68	

C

Percentile	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
	Fall	Winter	Spring	Mean	SD	491	494	496	497	498	500	501	502	503	504	504	505	506	507	509	510	511	513	516
5	489	490	491	4.9	4.7	28	51	66	76	84	89	93	95	97	98	99	99	99	99	99	99	99	99	
10	492	493	494	4.4	4.7	15	33	48	60	70	78	84	89	92	95	97	98	99	99	99	99	99	99	
15	493	494	496	4.1	4.7	9	23	36	48	59	68	75	82	87	91	93	96	97	98	99	99	99	99	
20	495	496	497	3.9	4.7	6	16	27	39	49	59	67	74	81	86	90	93	95	97	98	99	99	99	
25	496	497	498	3.7	4.7	4	11	21	31	41	50	59	67	74	80	85	90	93	96	97	99	99	99	
30	497	498	500	3.5	4.7	2	8	16	24	34	43	52	60	68	75	81	86	90	93	96	98	99	99	
35	498	499	501	3.3	4.7	2	6	12	19	27	36	45	53	61	69	75	81	87	91	94	97	98	99	
40	499	500	502	3.1	4.7	1	4	9	15	22	30	38	47	55	63	70	77	83	88	92	95	98	99	
45	500	501	503	3.0	4.7	1	3	7	12	18	25	32	40	48	56	64	71	78	84	89	94	97	99	
50	501	502	504	2.8	4.7	1	2	5	9	14	20	27	34	42	50	58	66	73	80	86	91	95	98	
55	502	503	504	2.6	4.7	1	1	3	7	11	16	22	29	36	44	52	60	68	75	82	88	93	97	
60	503	504	505	2.5	4.7	1	1	2	5	8	12	17	23	30	38	45	54	62	70	78	85	91	96	
65	503	505	506	2.3	4.7	1	1	2	3	6	9	13	19	25	31	39	47	55	64	73	81	88	94	
70	504	506	507	2.1	4.7	1	1	1	2	4	7	10	14	19	25	32	40	48	57	66	76	84	92	
75	506	507	509	2.0	4.7	1	1	1	1	3	5	7	10	15	20	26	33	41	50	59	69	79	89	
80	507	508	510	2.0	4.7	1	1	1	1	2	3	5	7	10	14	20	26	33	41	51	62	73	84	
85	508	510	511	2.0	4.7	1	1	1	1	1	2	3	4	7	10	13	18	25	32	41	52	64	78	
90	510	512	513	2.0	4.7	1	1	1	1	1	1	1	2	3	5	8	11	16	22	30	40	52	67	
95	512	514	516	2.0	4.7	1	1	1	1	1	1	1	1	1	2	3	5	7	11	16	24	34	50	

Table 3.6. Snapshot of Norms—Language Comprehension, Grade 3

A

Percentile	Achievement Norm Score			Fall-Winter Cond. Growth		Winter Percentile and Score																		
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
						491	493	495	497	498	499	500	501	502	503	504	505	506	507	508	510	511	513	516
5	490	491	490	3.0	4.0	32	59	76	86	92	95	97	99	99	99	99	99	99	99	99	99	99	99	99
10	492	493	493	2.6	4.0	15	36	54	68	79	86	91	95	97	98	99	99	99	99	99	99	99	99	99
15	494	495	495	2.3	4.0	7	22	38	53	65	75	83	89	93	95	97	99	99	99	99	99	99	99	99
20	496	497	497	2.1	4.0	4	14	27	41	53	64	74	81	87	91	95	97	98	99	99	99	99	99	99
25	497	498	498	1.9	4.0	2	9	19	31	42	54	64	73	80	86	91	94	97	98	99	99	99	99	99
30	498	499	499	1.7	4.0	1	6	13	23	33	44	55	64	73	80	86	91	94	97	98	99	99	99	99
35	499	500	500	1.6	4.0	1	4	9	16	26	35	46	56	65	73	81	87	91	95	97	99	99	99	99
40	500	501	502	1.4	4.0	1	2	6	12	19	28	37	47	57	66	74	81	87	92	96	98	99	99	99
45	501	502	503	1.3	4.0	1	1	4	8	14	21	30	39	49	58	67	75	83	89	93	97	99	99	99
50	502	503	504	1.1	4.0	1	1	2	5	10	16	23	32	41	50	60	69	77	84	90	95	98	99	99
55	503	504	505	1.0	4.0	1	1	2	4	7	12	17	25	33	42	51	61	70	79	86	92	96	99	99
60	504	505	506	1.0	4.0	1	1	1	2	5	8	13	19	26	34	43	53	63	72	81	88	94	98	99
65	505	506	507	1.0	4.0	1	1	1	1	3	5	9	13	19	27	35	44	54	65	75	84	91	97	99
70	506	507	508	1.0	4.0	1	1	1	1	2	3	6	9	14	20	27	36	45	56	67	77	87	94	99
75	507	508	509	1.0	4.0	1	1	1	1	1	2	3	6	9	14	20	27	36	46	58	70	81	91	98
80	508	510	511	1.0	4.0	1	1	1	1	1	1	2	3	5	9	13	19	26	36	47	59	73	86	96
85	510	511	512	1.0	4.0	1	1	1	1	1	1	1	2	3	5	8	12	17	25	35	47	62	78	93
90	512	513	514	1.0	4.0	1	1	1	1	1	1	1	1	1	2	3	6	9	14	21	32	46	64	85
95	515	516	517	1.0	4.0	1	1	1	1	1	1	1	1	1	1	1	3	5	8	14	24	41	68	

B

Percentile	Achievement Norm Score			Winter-Spring Cond. Growth		Spring Percentile and Score																			
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	
						490	493	495	497	498	499	500	502	503	504	505	506	507	508	509	511	512	514	517	
5	490	491	490	1.8	4.7	30	55	71	81	88	93	95	97	98	99	99	99	99	99	99	99	99	99	99	
10	492	493	493	1.5	4.7	15	34	51	64	75	82	88	92	95	97	98	99	99	99	99	99	99	99	99	
15	494	495	495	1.3	4.7	8	23	37	51	62	72	79	85	90	93	96	97	99	99	99	99	99	99	99	
20	496	497	497	1.2	4.7	5	15	27	40	51	61	70	78	84	89	92	95	97	98	99	99	99	99	99	
25	497	498	498	1.0	4.7	3	10	20	31	42	52	62	70	77	83	88	92	95	97	98	99	99	99	99	
30	498	499	499	1.0	4.7	2	7	15	24	34	44	53	62	70	77	83	88	92	95	97	99	99	99	99	
35	499	500	500	1.0	4.7	1	5	10	18	27	36	45	54	63	71	78	84	89	93	96	98	99	99	99	
40	500	501	502	1.0	4.7	1	3	7	13	21	29	38	47	56	64	72	79	85	90	94	97	99	99	99	
45	501	502	503	1.0	4.7	1	2	5	10	16	23	31	40	48	57	66	73	80	86	91	95	98	99	99	
50	502	503	504	1.0	4.7	1	1	4	7	12	18	25	33	41	50	59	67	75	82	88	93	97	99	99	
55	503	504	505	1.0	4.7	1	1	2	5	9	14	20	27	35	43	52	60	69	77	84	90	95	98	99	
60	504	505	506	1.0	4.7	1	1	2	3	6	10	15	21	28	36	44	53	62	71	79	87	93	97	99	
65	505	506	507	1.0	4.7	1	1	1	2	4	7	11	16	22	29	37	46	55	64	74	82	90	95	99	
70	506	507	508	1.0	4.7	1	1	1	1	3	5	8	12	17	23	30	38	47	57	67	76	86	93	98	
75	507	508	509	1.0	4.7	1	1	1	1	2	3	5	8	12	17	23	30	39	48	58	69	80	90	97	
80	508	510	511	1.0	4.7	1	1	1	1	1	2	3	5	8	11	16	22	30	39	49	60	73	85	95	
85	510	511	512	1.0	4.7	1	1	1	1	1	1	2	3	4	7	10	15	21	29	38	49	63	78	92	
90	512	513	514	1.0	4.7	1	1	1	1	1	1	1	1	1	2	3	5	8	12	18	26	36	49	66	85
95	515	516	517	1.0	4.7	1	1	1	1	1	1	1	1	1	1	2	3	5	8	12	19	29	45	70	

C

Percentile	Achievement Norm Score			Fall-Spring Cond. Growth		Spring Percentile and Score																		
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
						490	493	495	497	498	499	500	502	503	504	505	506	507	508	509	511	512	514	517
5	490	491	490	3.4	5.1	28	51	66	77	84	89	93	95	97	98	99	99	99	99	99	99	99	99	99
10	492	493	493	3.0	5.1	15	33	48	61	70	78	84	89	92	95	97	98	99	99	99	99	99	99	99
15	494	495	495	2.8	5.1	9	23	36	48	59	68	76	82	87	91	94	96	97	99	99	99	99	99	99
20	496	497	497	2.5	5.1	6	16	27	39	49	59	67	75	81	86	90	93	95	97	98	99	99	99	99
25	497	498	498	2.4	5.1	4	11	21	31	41	50	59	67	74	80	86	90	93	96	97	99	99	99	99
30	498	499	499	2.2	5.1	2	8	16	24	34	43	52	60	68	75	81	86	90	94	96	98	99	99	99
35	499	500	500	2.0	5.1	2	6	12	19	27	36	45	53	61	69	76	82	87	91	94	97	99	99	99
40	500	501	502	2.0	5.1	1	4	9	15	22	30	38	47	55	63	70	77	83	88	92	95	98	99	99
45	501	502	503	2.0	5.1	1	3	7	12	18	25	32	40	48	56	64	72	78	84	89	94	97	99	99
50	502	503	504	2.0	5.1	1	2	5	9	14	20	27	34	42	50	58	66	73	80	86	91	95	98	99
55	503	504	505	2.0	5.1	1	1	3	6	11	16	22	29	36	44	52	60	68	75	82	89	94	97	99
60	504	505	506	2.0	5.1	1	1	2	5	8	12	17	23	30	37	45	54	62	70	78	85	91	96	99
65	505	506	507	2.0	5.1	1	1	2	3	6	9	13	19	25	31	39	47	55	64	73	81	88	94	99
70	506	507	508	2.0	5.1	1	1	1	2	4	7	10	14	19	25	32	40	48	57	66	76	84	92	98
75	507	508	509	2.0	5.1	1	1	1	1	3	4	7	10	15	20	26	33	41	50	59	69	79	89	96
80	508	510	511	2.0	5.1	1	1	1	1	2	3	5	7	10	14	19	26	33	41	51	62	73	84	94
85	510	511	512	2.0	5.1	1	1	1	1	1	2	3	4	7	9	13	18	24	32	41	52	64	78	91
90	512	513	514	2.0	5.1	1	1	1	1	1	1	1	2	3	5	8	11	16	22	30	40	52	67	85
95	515	516	517	2.0	5.1	1	1	1	1	1	1	1	1	1	2	3	5	7	11	16	23	34	49	72

Table 3.7. Snapshot of Norms—Phonological Awareness, Grade K

A

		Winter Percentile and Score																						
Percentile	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
	Fall	Winter	Spring	Mean	SD	481	484	486	488	489	490	491	492	493	494	495	496	497	498	499	501	502	504	507
5	477	481	485	8.7	6.0	22	39	51	61	69	76	81	85	89	92	94	96	97	98	99	99	99	99	99
10	480	484	488	8.1	6.0	14	28	39	49	58	65	72	77	82	86	89	92	94	96	98	99	99	99	99
15	481	486	490	7.6	6.0	10	21	32	41	50	57	64	71	76	81	85	89	92	94	96	98	99	99	99
20	483	488	492	7.3	6.0	8	17	26	35	43	51	58	65	71	76	81	85	89	92	94	97	98	99	99
25	484	489	493	7.0	6.0	6	13	22	30	38	45	53	59	66	72	77	82	86	90	93	95	97	99	99
30	485	490	494	6.7	6.0	4	11	18	26	33	40	48	54	61	67	73	78	83	87	91	94	96	98	99
35	486	491	495	6.5	6.0	3	9	15	22	29	36	43	50	56	63	69	74	80	84	89	92	95	98	99
40	487	492	496	6.3	6.0	3	7	13	19	25	32	39	45	52	58	65	71	76	82	86	91	94	97	99
45	488	493	497	6.0	6.0	2	6	11	16	22	28	35	41	48	54	61	67	73	79	84	89	93	96	99
50	488	494	498	5.8	6.0	2	5	9	14	19	25	31	37	44	50	57	63	69	75	81	86	91	95	98
55	489	495	499	5.6	6.0	1	4	7	11	16	22	27	33	39	46	52	59	66	72	78	84	89	94	98
60	490	496	500	5.4	6.0	1	3	6	10	14	19	24	29	35	42	48	55	61	68	75	81	87	93	97
65	491	497	502	5.2	6.0	1	2	5	8	11	16	20	26	31	37	44	50	57	64	71	78	85	91	97
70	492	498	503	4.9	6.0	1	2	4	6	9	13	17	22	27	33	39	46	53	60	67	75	82	89	96
75	493	499	504	4.7	6.0	1	1	3	5	7	11	14	19	23	29	34	41	48	55	62	70	78	87	94
80	494	501	505	4.4	6.0	1	1	2	4	6	8	11	15	19	24	29	35	42	49	57	65	74	83	93
85	495	502	507	4.0	6.0	1	1	1	2	4	6	9	12	15	19	24	30	36	43	50	59	69	79	90
90	497	504	509	3.6	6.0	1	1	1	2	3	4	6	8	11	14	18	23	28	35	42	51	61	73	86
95	500	507	512	3.0	6.0	1	1	1	1	1	2	3	4	6	8	11	15	19	24	31	39	49	62	78

B

		Spring Percentile and Score																							
Percentile	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	
	Fall	Winter	Spring	Mean	SD	485	488	490	492	493	494	495	496	497	498	499	500	502	503	504	505	507	509	512	
5	477	481	485	6.8	5.3	27	48	63	73	81	87	91	94	96	97	98	99	99	99	99	99	99	99	99	
10	480	484	488	6.3	5.3	15	32	46	58	68	75	82	86	90	93	95	97	98	99	99	99	99	99	99	
15	481	486	490	5.9	5.3	9	22	35	47	57	66	73	79	84	89	92	94	96	98	99	99	99	99	99	
20	483	488	492	5.5	5.3	6	16	27	38	48	57	65	72	78	84	88	91	94	96	98	99	99	99	99	
25	484	489	493	5.3	5.3	4	12	21	31	40	49	58	65	72	78	84	88	92	94	97	98	99	99	99	
30	485	490	494	5.0	5.3	3	9	16	25	34	42	51	59	66	73	79	84	89	92	95	97	99	99	99	
35	486	491	495	4.8	5.3	2	7	13	20	28	36	44	52	60	67	74	80	85	89	93	96	98	99	99	
40	487	492	496	4.6	5.3	1	5	10	16	23	31	38	46	54	62	69	75	81	86	91	94	97	99	99	
45	488	493	497	4.4	5.3	1	4	8	13	19	26	33	40	48	56	63	70	77	83	88	92	96	98	99	
50	488	494	498	4.2	5.3	1	3	6	10	15	21	28	35	42	50	58	65	72	79	85	90	94	98	99	
55	489	495	499	4.0	5.3	1	2	4	8	12	17	23	30	37	44	52	60	67	74	81	87	93	97	99	
60	490	496	500	3.7	5.3	1	1	3	6	9	14	19	25	31	38	46	54	62	70	77	84	90	95	99	
65	491	497	502	3.5	5.3	1	1	2	4	7	11	15	20	26	33	40	48	56	64	72	80	87	94	98	
70	492	498	503	3.3	5.3	1	1	1	3	5	8	12	16	21	27	34	41	49	58	66	75	84	91	97	
75	493	499	504	3.1	5.3	1	1	1	2	4	6	9	12	17	22	28	35	42	51	60	69	79	88	96	
80	494	501	505	2.8	5.3	1	1	1	1	2	4	6	9	12	17	22	28	35	43	52	62	73	84	94	
85	495	502	507	2.5	5.3	1	1	1	1	1	2	4	6	8	12	16	21	27	35	43	54	65	78	91	
90	497	504	509	2.1	5.3	1	1	1	1	1	1	2	3	5	7	10	14	19	25	33	42	54	68	85	
95	500	507	512	1.5	5.3	1	1	1	1	1	1	1	1	1	2	3	4	6	9	14	19	27	37	52	73

C

		Spring Percentile and Score																						
Percentile	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
	Fall	Winter	Spring	Mean	SD	485	488	490	492	493	494	495	496	497	498	499	500	502	503	504	505	507	509	512
5	477	481	485	13.5	6.7	19	34	45	54	62	69	75	79	84	87	90	92	95	96	97	98	99	99	99
10	480	484	488	12.7	6.7	13	25	35	44	52	60	66	72	77	81	85	88	91	94	96	97	98	99	99
15	481	486	490	12.2	6.7	10	20	29	38	46	53	60	66	71	76	81	85	88	91	94	96	98	99	99
20	483	488	492	11.8	6.7	8	16	25	33	41	48	54	61	66	72	77	81	85	89	92	95	97	98	99
25	484	489	493	11.4	6.7	6	14	21	29	36	43	50	56	62	68	73	78	82	86	90	93	96	98	99
30	485	490	494	11.1	6.7	5	12	19	25	32	39	46	52	58	64	70	75	80	84	88	92	95	97	99
35	486	491	495	10.8	6.7	4	10	16	23	29	36	42	48	54	60	66	72	77	82	86	90	94	97	99
40	487	492	496	10.5	6.7	3	8	14	20	26	32	39	45	51	57	63	69	74	79	84	88	92	96	99
45	488	493	497	10.3	6.7	3	7	12	18	23	29	35	41	47	53	59	65	71	77	82	87	91	95	98
50	488	494	498	10.0	6.7	2	6	11	15	21	26	32	38	44	50	56	62	68	74	79	85	90	94	98
55	489	495	499	9.7	6.7	2	5	9	13	18	24	29	35	41	47	53	59	65	71	77	83	88	93	97
60	490	496	500	9.4	6.7	2	4	8	12	16	21	26	32	37	43	49	55	62	68	74	80	86	92	97
65	491	497	502	9.2	6.7	1	4	6	10	14	18	23	28	34	40	46	52	58	65	71	78	84	90	96
70	492	498	503	8.9	6.7	1	3	5	8	12	16	20	25	30	36	42	48	54	61	68	75	82	88	95
75	493	499	504	8.5	6.7	1	2	4	7	10	14	18	22	27	32	38	44	50	57	64	71	79	86	94
80	494	501	505	8.2	6.7	1	2	3	6	8	11	15	19	23	28	34	39	46	52	60	67	75	84	92
85	495	502	507	7.8	6.7	1	1	3	4	6	9	12	16	19	24	29	34	40	47	54	62	71	80	90
90	497	504	509	7.2	6.7	1	1	2	3	5	7	9	12	15	19	23	28	34	40	48	56	65	75	87
95	500	507	512	6.5	6.7	1	1	1	2	3	4	6	8	10	13	17	21	26	31	38	46	55	67	81

Table 3.8. Snapshot of Norms—Phonological Awareness, Grade 1

A

Percentile	Achievement Norm Score		Fall-Winter Cond. Growth		Winter Percentile and Score																		
					5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
	Fall	Winter	Spring	Mean	SD	490	493	495	496	498	499	500	501	502	503	503	504	505	506	507	509	510	512
5	487	490	492	7.0	5.0	26	46	60	71	79	84	89	92	95	96	98	99	99	99	99	99	99	
10	489	493	495	6.3	5.0	15	31	45	56	65	73	79	85	89	92	94	96	98	99	99	99	99	
15	491	495	497	5.8	5.0	10	22	34	45	55	64	71	77	83	87	91	93	96	97	98	99	99	
20	493	496	498	5.4	5.0	7	16	27	37	47	56	64	71	77	82	86	90	93	95	97	98	99	
25	494	498	499	5.1	5.0	5	12	21	31	40	48	57	64	71	77	82	87	90	93	96	98	99	
30	495	499	501	4.8	5.0	3	9	17	25	34	42	50	58	65	72	78	83	87	91	94	97	98	
35	496	500	502	4.5	5.0	2	7	13	21	28	36	44	52	59	66	73	79	84	88	92	95	97	
40	497	501	503	4.3	5.0	2	5	11	17	24	31	39	46	54	61	68	74	80	85	90	94	96	
45	498	502	503	4.0	5.0	1	4	8	13	20	26	33	41	48	55	63	70	76	82	87	92	95	
50	499	503	504	3.8	5.0	1	3	6	11	16	22	29	35	43	50	57	65	72	78	84	89	94	
55	500	503	505	3.5	5.0	1	2	5	8	13	18	24	31	37	45	52	59	67	74	81	87	92	
60	501	504	506	3.3	5.0	1	2	4	7	10	15	20	26	32	39	46	54	62	69	76	83	90	
65	502	505	507	3.0	5.0	1	1	3	5	8	12	16	21	27	34	41	48	56	64	72	80	87	
70	503	506	508	2.8	5.0	1	1	2	4	6	9	13	17	23	29	35	42	50	58	67	75	83	
75	504	507	509	2.5	5.0	1	1	1	2	4	7	10	13	18	23	29	36	44	52	60	70	79	
80	505	509	511	2.1	5.0	1	1	1	2	3	5	7	10	14	18	23	30	37	45	53	63	73	
85	506	510	512	1.8	5.0	1	1	1	1	2	3	5	7	10	13	17	23	29	36	45	55	66	
90	508	512	514	1.3	5.0	1	1	1	1	1	2	3	4	6	8	11	16	21	27	35	44	56	
95	511	515	517	1.0	5.0	1	1	1	1	1	1	1	2	2	4	6	8	11	16	22	29	40	

B

Percentile	Achievement Norm Score		Winter-Spring Cond. Growth		Spring Percentile and Score																		
					5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
	Fall	Winter	Spring	Mean	SD	492	495	497	498	499	501	502	503	503	504	505	506	507	508	509	511	512	514
5	487	490	492	4.6	4.6	28	50	65	76	83	89	92	95	97	98	99	99	99	99	99	99	99	
10	489	493	495	4.0	4.6	15	33	48	60	70	78	84	88	92	94	96	98	99	99	99	99	99	
15	491	495	497	3.6	4.6	9	23	36	48	58	67	75	81	86	90	93	96	97	98	99	99	99	
20	493	496	498	3.3	4.6	6	16	27	38	49	58	67	74	80	85	89	93	95	97	98	99	99	
25	494	498	499	3.0	4.6	4	11	21	31	41	50	59	67	74	80	85	89	93	95	97	99	99	
30	495	499	501	2.8	4.6	2	8	16	25	34	43	52	60	67	74	80	86	90	93	96	98	99	
35	496	500	502	2.5	4.6	2	6	12	19	28	36	45	53	61	68	75	81	86	91	94	97	98	
40	497	501	503	2.3	4.6	1	4	9	15	22	30	38	46	55	62	70	76	82	88	92	95	98	
45	498	502	503	2.1	4.6	1	3	7	12	18	25	32	40	48	56	64	71	78	84	89	93	97	
50	499	503	504	1.9	4.6	1	2	5	9	14	20	27	34	42	50	58	66	73	80	86	91	95	
55	500	503	505	1.7	4.6	1	1	4	7	11	16	22	29	36	44	52	60	68	75	82	88	93	
60	501	504	506	1.5	4.6	1	1	2	5	8	13	18	24	30	38	45	54	62	70	78	85	91	
65	502	505	507	1.3	4.6	1	1	2	3	6	9	14	19	25	32	39	47	55	64	73	81	88	
70	503	506	508	1.0	4.6	1	1	1	2	4	7	10	15	20	26	33	40	49	57	66	76	84	
75	504	507	509	1.0	4.6	1	1	1	2	3	5	7	11	15	20	26	33	41	50	59	69	79	
80	505	509	511	1.0	4.6	1	1	1	1	2	3	5	7	11	15	20	26	33	42	51	62	73	
85	506	510	512	1.0	4.6	1	1	1	1	1	2	3	5	7	10	14	19	25	33	42	52	64	
90	508	512	514	1.0	4.6	1	1	1	1	1	1	2	4	6	8	12	16	23	30	40	52	67	
95	511	515	517	1.0	4.6	1	1	1	1	1	1	1	1	2	3	5	8	11	17	24	35	50	

C

Percentile	Achievement Norm Score		Fall-Spring Cond. Growth		Spring Percentile and Score																		
					5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
	Fall	Winter	Spring	Mean	SD	492	495	497	498	499	501	502	503	503	504	505	506	507	508	509	511	512	514
5	487	490	492	9.6	5.5	23	41	54	64	72	79	84	88	91	93	95	97	98	99	99	99	99	
10	489	493	495	8.7	5.5	15	29	41	51	60	68	74	80	84	88	91	94	96	97	98	99	99	
15	491	495	497	8.2	5.5	10	22	32	42	51	59	67	73	78	83	87	90	93	95	97	98	99	
20	493	496	498	7.7	5.5	7	17	26	36	44	52	60	67	73	78	83	87	90	93	95	97	99	
25	494	498	499	7.3	5.5	5	13	22	30	38	46	54	61	67	73	79	83	87	91	94	96	98	
30	495	499	501	6.9	5.5	4	10	18	25	33	41	48	55	62	68	74	80	84	88	92	95	97	
35	496	500	502	6.6	5.5	3	8	15	22	29	36	43	50	57	64	70	76	81	86	90	93	96	
40	497	501	503	6.3	5.5	2	7	12	18	25	32	39	46	53	59	66	72	78	83	87	92	95	
45	498	502	503	6.0	5.5	2	5	10	15	21	28	34	41	48	55	61	68	74	80	85	90	94	
50	499	503	504	5.7	5.5	1	4	8	13	18	24	30	37	43	50	57	63	70	76	82	87	92	
55	500	503	505	5.4	5.5	1	3	6	11	15	20	26	32	39	45	52	59	66	72	79	85	90	
60	501	504	506	5.1	5.5	1	2	5	9	13	17	23	28	34	41	48	54	61	68	75	82	88	
65	502	505	507	4.8	5.5	1	2	4	7	10	14	19	24	30	36	43	50	57	64	71	79	85	
70	503	506	508	4.4	5.5	1	1	3	5	8	12	16	21	26	32	38	45	52	59	67	75	82	
75	504	507	509	4.1	5.5	1	1	2	4	6	9	13	17	22	27	33	39	46	54	62	70	79	
80	505	509	511	3.7	5.5	1	1	2	3	5	7	10	13	17	22	27	34	40	48	56	65	74	
85	506	510	512	3.2	5.5	1	1	1	2	3	5	7	10	13	17	22	27	34	41	49	58	68	
90	508	512	514	2.6	5.5	1	1	1	1	2	3	5	7	9	12	16	20	26	32	40	49	59	
95	511	515	517	2.0	5.5	1	1	1	1	1	1	2	3	5	7	9	12	16	21	28	36	46	

Table 3.9. Snapshot of Norms—Phonological Awareness, Grade 2

A

Percentile	Achievement Norm Score		Fall-Winter Cond. Growth		Winter Percentile and Score																			
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
	493	495	496	4.3	4.8	493	495	497	498	500	501	502	503	504	504	505	506	507	508	509	511	512	514	514
5	491	493	493	4.3	4.8	26	46	61	71	79	85	89	93	95	97	98	99	99	99	99	99	99	99	99
10	494	495	496	3.8	4.8	15	31	45	56	66	74	80	85	89	92	95	96	98	99	99	99	99	99	99
15	495	497	498	3.5	4.8	10	22	35	46	56	64	72	78	83	87	91	94	96	97	98	99	99	99	99
20	497	498	499	3.2	4.8	6	16	27	37	47	56	64	71	77	82	87	90	93	96	97	99	99	99	99
25	498	500	501	3.0	4.8	4	12	21	31	40	49	57	64	71	77	82	87	91	94	96	98	99	99	99
30	499	501	502	2.8	4.8	3	9	17	25	34	42	50	58	65	72	78	83	88	91	94	97	98	99	99
35	500	502	503	2.6	4.8	2	7	13	20	28	36	44	52	59	67	73	79	84	89	92	95	98	99	99
40	501	503	504	2.5	4.8	2	5	10	17	23	31	38	46	54	61	68	74	80	86	90	94	97	99	99
45	502	504	505	2.3	4.8	1	4	8	13	19	26	33	41	48	56	63	70	76	82	87	92	95	98	99
50	502	504	506	2.1	4.8	1	3	6	11	16	22	28	35	43	50	57	65	72	78	84	90	94	97	99
55	503	505	507	1.9	4.8	1	2	5	8	13	18	24	30	37	45	52	59	67	74	81	87	92	96	99
60	504	506	508	1.8	4.8	1	1	3	6	10	14	20	26	32	39	46	54	62	69	77	84	90	95	99
65	505	507	509	1.6	4.8	1	1	2	5	8	11	16	21	27	34	41	48	56	64	72	80	87	93	98
70	506	508	510	1.4	4.8	1	1	2	3	6	9	12	17	22	28	35	42	50	58	67	75	83	91	97
75	507	509	511	1.2	4.8	1	1	1	2	4	6	9	13	18	23	29	36	43	52	60	70	79	88	96
80	508	511	512	1.0	4.8	1	1	1	2	3	4	7	10	13	18	23	29	36	44	53	63	73	84	94
85	509	512	514	1.0	4.8	1	1	1	1	2	3	4	6	9	13	17	22	28	36	45	54	66	78	90
90	511	514	515	1.0	4.8	1	1	1	1	1	1	2	4	6	8	11	15	20	26	34	44	55	69	85
95	513	516	518	1.0	4.8	1	1	1	1	1	1	1	2	4	5	8	11	15	21	29	39	54	74	

B

Percentile	Achievement Norm Score		Winter-Spring Cond. Growth		Spring Percentile and Score																			
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
	493	496	498	3.6	4.8	493	496	498	499	501	502	503	504	505	506	507	508	509	510	511	512	514	515	518
5	491	493	493	3.6	4.8	28	50	65	75	83	88	92	95	97	98	99	99	99	99	99	99	99	99	99
10	494	495	496	3.1	4.8	15	32	47	60	69	77	83	88	92	94	96	98	99	99	99	99	99	99	99
15	495	497	498	2.8	4.8	9	23	36	48	58	67	75	81	86	90	93	95	97	98	99	99	99	99	99
20	497	498	499	2.5	4.8	6	16	27	38	49	58	66	74	80	85	89	92	95	97	98	99	99	99	99
25	498	500	501	2.3	4.8	4	12	21	31	41	50	59	67	74	80	85	89	93	95	97	99	99	99	99
30	499	501	502	2.1	4.8	3	8	16	25	34	43	51	60	67	74	80	85	90	93	96	98	99	99	99
35	500	502	503	1.9	4.8	2	6	12	20	28	36	45	53	61	68	75	81	86	90	94	97	98	99	99
40	501	503	504	1.7	4.8	1	4	9	15	22	30	38	46	55	62	70	76	82	87	92	95	98	99	99
45	502	504	505	1.5	4.8	1	3	7	12	18	25	32	40	48	56	64	71	78	84	89	93	96	99	99
50	502	504	506	1.3	4.8	1	2	5	9	14	20	27	34	42	50	58	66	73	80	86	91	95	98	99
55	503	505	507	1.2	4.8	1	1	4	7	11	16	22	29	36	44	52	60	68	75	82	88	93	97	99
60	504	506	508	1.0	4.8	1	1	3	5	8	13	18	24	31	38	46	54	62	70	78	85	91	96	99
65	505	507	509	1.0	4.8	1	1	2	4	6	10	14	19	25	32	39	47	55	64	72	81	88	94	98
70	506	508	510	1.0	4.8	1	1	1	2	4	7	11	15	20	26	33	40	49	57	66	76	84	92	98
75	507	509	511	1.0	4.8	1	1	1	2	3	5	8	11	15	20	27	34	41	50	60	69	79	89	96
80	508	511	512	1.0	4.8	1	1	1	1	2	3	5	8	11	15	20	26	34	42	51	62	73	84	94
85	509	512	514	1.0	4.8	1	1	1	1	1	2	3	5	7	10	14	19	25	33	42	52	64	78	91
90	511	514	515	1.0	4.8	1	1	1	1	1	1	1	2	4	6	9	12	17	23	31	41	53	68	85
95	513	516	518	1.0	4.8	1	1	1	1	1	1	1	1	1	2	3	5	8	12	17	25	35	50	72

C

Percentile	Achievement Norm Score		Fall-Spring Cond. Growth		Spring Percentile and Score																			
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
	493	496	498	6.1	5.5	493	496	498	499	501	502	503	504	505	506	507	508	509	510	511	512	514	515	518
5	491	493	493	6.1	5.5	24	41	54	64	73	79	84	88	91	94	95	97	98	99	99	99	99	99	99
10	494	495	496	5.5	5.5	15	29	41	51	60	68	74	80	84	88	91	94	96	97	98	99	99	99	99
15	495	497	498	5.1	5.5	10	22	33	43	52	60	67	73	78	83	87	90	93	95	97	98	99	99	99
20	497	498	499	4.8	5.5	7	17	26	36	44	53	60	67	73	78	83	87	90	93	96	97	99	99	99
25	498	500	501	4.5	5.5	5	13	22	30	38	46	54	61	67	73	79	83	87	91	94	96	98	99	99
30	499	501	502	4.3	5.5	4	10	18	25	33	41	48	56	62	69	74	80	84	88	92	95	97	99	99
35	500	502	503	4.1	5.5	3	8	15	22	29	36	43	50	57	64	70	76	81	86	90	93	96	98	99
40	501	503	504	3.9	5.5	2	7	12	18	25	32	39	46	53	59	66	72	78	83	88	92	95	98	99
45	502	504	505	3.6	5.5	2	5	10	15	21	28	34	41	48	55	61	68	74	80	85	90	94	97	99
50	502	504	506	3.4	5.5	1	4	8	13	18	24	30	37	43	50	57	64	70	76	82	87	92	96	99
55	503	505	507	3.2	5.5	1	3	6	10	15	20	26	32	39	45	52	59	66	73	79	85	90	95	98
60	504	506	508	3.0	5.5	1	2	5	8	13	17	23	28	34	41	48	54	61	68	75	82	88	93	98
65	505	507	509	2.8	5.5	1	2	4	7	10	14	19	24	30	36	43	50	57	64	71	79	85	92	97
70	506	508	510	2.6	5.5	1	1	3	5	8	12	16	20	26	32	38	45	52	59	67	75	82	90	96
75	507	509	511	2.4	5.5	1	1	2	4	6	9	13	17	21	27	33	39	46	54	62	70	79	87	95
80	508	511	512	2.1	5.5	1	1	1	3	5	7	10	13	17	22	27	33	40	48	56	64	74	83	93
85	509	512	514	2.0	5.5	1	1	1	2	3	5	7	10	13	17	22	27	33	41	49	58	68	79	90
90	511	514	515	2.0	5.5	1	1	1	1	2	3	4	6	9	12	16	20	26	32	40	49	59	71	85
95	513	516	518	2.0	5.5	1	1	1	1	1	1	2	3	5	7	9	12	16	21	28	36	46	59	77

Table 3.10. Snapshot of Norms—Phonological Awareness, Grade 3

A

Percentile	Achievement Norm Score			Fall-Winter Cond. Growth		Winter Percentile and Score																			
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	
						494	496	498	499	501	502	503	504	505	505	506	507	508	509	510	512	513	515	517	
5	492	494	493	4.4	4.6	28	49	64	74	82	87	91	94	96	98	99	99	99	99	99	99	99	99	99	
10	495	496	496	3.9	4.6	15	32	47	59	68	76	82	87	91	94	96	97	98	99	99	99	99	99	99	
15	496	498	498	3.6	4.6	9	22	35	47	57	66	74	80	85	89	92	95	97	98	99	99	99	99	99	
20	498	499	500	3.3	4.6	6	16	27	38	48	57	66	73	79	84	89	92	95	97	98	99	99	99	99	
25	499	501	501	3.1	4.6	4	12	21	31	40	50	58	66	73	79	84	89	92	95	97	98	99	99	99	
30	500	502	502	2.8	4.6	3	9	16	25	34	42	51	59	67	73	79	85	89	93	95	97	99	99	99	
35	501	503	503	2.6	4.6	2	6	12	20	28	36	44	53	60	68	74	80	86	90	93	96	98	99	99	
40	502	504	504	2.5	4.6	1	5	10	16	23	30	38	46	54	62	69	76	82	87	91	95	97	99	99	
45	503	505	505	2.3	4.6	1	3	7	12	18	25	33	40	48	56	64	71	77	83	89	93	96	98	99	
50	503	505	506	2.1	4.6	1	2	5	10	15	21	27	35	42	50	58	65	73	79	85	91	95	98	99	
55	504	506	507	1.9	4.6	1	2	4	7	12	17	23	29	37	44	52	60	67	75	82	88	93	97	99	
60	505	507	508	1.7	4.6	1	1	3	5	9	13	18	24	31	38	46	54	62	70	77	84	91	96	99	
65	506	508	509	1.6	4.6	1	1	2	4	7	10	15	20	26	32	40	47	56	64	72	80	88	94	98	
70	507	509	510	1.4	4.6	1	1	1	3	5	8	11	15	21	27	33	41	49	58	66	75	84	92	97	
75	508	510	511	1.2	4.6	1	1	1	2	3	5	8	12	16	21	27	34	42	51	60	69	79	88	96	
80	509	512	513	1.0	4.6	1	1	1	1	2	3	5	8	12	16	21	27	34	43	52	62	73	84	94	
85	511	513	514	1.0	4.6	1	1	1	1	1	2	3	5	8	11	15	20	26	34	43	53	65	78	91	
90	512	515	516	1.0	4.6	1	1	1	1	1	1	2	3	4	6	9	13	18	24	32	41	53	68	85	
95	515	517	519	1.0	4.6	1	1	1	1	1	1	1	1	2	3	4	6	9	13	18	26	36	51	73	

B

Percentile	Achievement Norm Score			Winter-Spring Cond. Growth		Spring Percentile and Score																			
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	
						493	496	498	500	501	502	503	504	505	506	507	508	509	510	511	513	514	516	519	
5	492	494	493	2.2	4.6	30	53	69	79	87	91	94	97	98	99	99	99	99	99	99	99	99	99	99	
10	495	496	496	1.9	4.6	15	34	50	63	73	81	86	91	94	96	98	99	99	99	99	99	99	99	99	
15	496	498	498	1.6	4.6	9	23	37	50	61	70	78	84	89	92	95	97	98	99	99	99	99	99	99	
20	498	499	500	1.5	4.6	5	15	27	39	50	60	69	76	83	87	91	94	96	98	99	99	99	99	99	
25	499	501	501	1.3	4.6	3	11	20	31	41	51	61	69	76	82	87	91	94	97	98	99	99	99	99	
30	500	502	502	1.2	4.6	2	7	15	24	34	43	53	61	69	76	82	87	91	95	97	98	99	99	99	
35	501	503	503	1.0	4.6	1	5	11	19	27	36	45	54	62	70	77	83	88	92	95	97	99	99	99	
40	502	504	504	1.0	4.6	1	3	8	14	21	29	38	47	55	64	71	78	84	89	93	96	98	99	99	
45	503	505	505	1.0	4.6	1	2	6	11	17	24	32	40	48	57	65	73	80	86	91	95	97	99	99	
50	503	505	506	1.0	4.6	1	2	4	8	13	19	26	33	42	50	58	67	74	81	87	92	96	99	99	
55	504	506	507	1.0	4.6	1	1	3	6	10	15	21	27	35	43	52	60	68	76	83	90	94	98	99	
60	505	507	508	1.0	4.6	1	1	2	4	7	11	16	22	29	37	45	53	62	71	79	86	92	97	99	
65	506	508	509	1.0	4.6	1	1	1	3	5	8	12	17	23	30	38	46	55	64	73	82	89	95	99	
70	507	509	510	1.0	4.6	1	1	1	2	3	6	9	13	18	24	31	39	48	57	67	76	85	93	98	
75	508	510	511	1.0	4.6	1	1	1	1	2	4	6	9	13	18	24	31	39	49	59	69	80	89	97	
80	509	512	513	1.0	4.6	1	1	1	1	1	2	4	6	9	13	18	24	31	40	50	61	73	85	95	
85	511	513	514	1.0	4.6	1	1	1	1	1	1	2	3	5	8	12	16	22	30	39	50	63	78	91	
90	512	515	516	1.0	4.6	1	1	1	1	1	1	1	2	3	4	6	9	14	20	27	37	50	66	85	
95	515	517	519	1.0	4.6	1	1	1	1	1	1	1	1	1	2	4	6	9	14	21	31	47	71	91	

C

Percentile	Achievement Norm Score			Fall-Spring Cond. Growth		Spring Percentile and Score																			
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	
						493	496	498	500	501	502	503	504	505	506	507	508	509	510	511	513	514	516	519	
5	492	494	493	5.4	5.6	24	42	55	66	74	80	85	89	92	94	96	97	98	99	99	99	99	99	99	
10	495	496	496	4.8	5.6	15	29	42	52	61	69	76	81	85	89	92	94	96	97	98	99	99	99	99	
15	496	498	498	4.4	5.6	10	22	33	43	52	60	68	74	79	84	88	91	94	96	97	98	99	99	99	
20	498	499	500	4.1	5.6	7	17	26	36	45	53	61	68	74	79	84	88	91	94	96	98	99	99	99	
25	499	501	501	3.8	5.6	5	13	22	30	39	47	54	62	68	74	79	84	88	91	94	97	98	99	99	
30	500	502	502	3.6	5.6	4	10	18	25	33	41	49	56	63	69	75	80	85	89	92	95	97	99	99	
35	501	503	503	3.4	5.6	3	8	14	21	29	36	43	51	58	64	71	76	82	86	90	94	96	98	99	
40	502	504	504	3.2	5.6	2	6	12	18	25	32	39	46	53	60	66	72	78	83	88	92	95	98	99	
45	503	505	505	3.0	5.6	2	5	10	15	21	27	34	41	48	55	62	68	74	80	85	90	94	97	99	
50	503	505	506	2.8	5.6	1	4	8	12	18	23	30	36	43	50	57	64	70	77	82	88	92	96	99	
55	504	506	507	2.6	5.6	1	3	6	10	15	20	26	32	39	45	52	59	66	73	79	85	91	95	98	
60	505	507	508	2.4	5.6	1	2	5	8	12	17	22	28	34	41	47	54	61	69	76	82	88	94	98	
65	506	508	509	2.1	5.6	1	2	4	6	10	14	18	24	29	36	42	49	57	64	71	79	86	92	97	
70	507	509	510	2.0	5.6	1	1	3	5	8	11	15	20	25	31	37	44	51	59	67	75	82	90	96	
75	508	510	511	2.0	5.6	1	1	2	4	6	9	12	16	21	26	32	39	46	53	61	70	79	87	95	
80	509	512	513	2.0	5.6	1	1	1	3	4	6	9	13	16	21	27	33	39	47	55	64	74	83	93	
85	511	513	514	2.0	5.6	1	1	1	2	3	4	6	9	12	16	21	26	32	40	48	57	67	78	90	
90	512	515	516	2.0	5.6	1	1	1	1	2	3	4	6	8	11	15	19	25	31	39	48	58	71	85	
95	515	517	519	2.0	5.6	1	1	1	1	1	1	2	3	4	6	8	11	15	20	26	34	45	58	76	

Table 3.11. Snapshot of Norms—Phonics & Word Recognition, Grade K

A

Percentile	Achievement Norm Score			Fall-Winter Cond. Growth		Winter Percentile and Score																			
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	
	475	481	485	8.8	5.2	481	484	486	487	489	490	491	492	493	494	495	496	497	498	499	500	502	504	507	
5	475	481	485	8.8	5.2	27	47	61	72	80	85	90	93	95	97	98	99	99	99	99	99	99	99	99	
10	478	484	488	8.4	5.2	15	31	45	57	66	74	80	85	89	92	95	97	98	99	99	99	99	99	99	
15	480	486	490	8.1	5.2	10	22	35	46	56	65	72	78	83	88	91	94	96	97	99	99	99	99	99	
20	481	487	492	7.9	5.2	6	16	27	37	47	56	64	71	77	83	87	91	94	96	98	99	99	99	99	
25	482	489	493	7.7	5.2	4	12	21	31	40	49	57	65	71	78	83	87	91	94	96	98	99	99	99	
30	483	490	494	7.5	5.2	3	9	17	25	34	42	50	58	66	72	78	83	88	92	95	97	98	99	99	
35	484	491	496	7.3	5.2	2	7	13	20	28	36	44	52	60	67	73	79	84	89	93	96	98	99	99	
40	485	492	497	7.2	5.2	1	5	10	16	23	31	38	46	54	61	68	75	81	86	90	94	97	99	99	
45	486	493	498	7.0	5.2	1	4	8	13	19	26	33	41	48	56	63	70	76	82	88	92	96	98	99	
50	487	494	499	6.9	5.2	1	3	6	10	16	22	28	35	43	50	58	65	72	78	84	90	94	97	99	
55	488	495	500	6.7	5.2	1	2	5	8	13	18	24	30	37	44	52	60	67	74	81	87	92	96	99	
60	489	496	501	6.6	5.2	1	1	3	6	10	14	19	25	32	39	46	54	62	69	77	84	90	95	99	
65	490	497	502	6.4	5.2	1	1	2	5	8	11	16	21	27	33	40	48	56	64	72	80	87	93	98	
70	491	498	503	6.2	5.2	1	1	2	3	6	9	12	17	22	28	35	42	50	58	67	75	83	91	97	
75	492	499	504	6.1	5.2	1	1	1	2	4	6	9	13	17	23	29	35	43	51	60	69	79	88	96	
80	493	500	506	5.9	5.2	1	1	1	1	3	4	6	9	13	17	23	29	36	44	53	63	73	84	94	
85	494	502	507	5.6	5.2	1	1	1	1	2	3	4	6	9	12	17	22	28	36	44	54	65	78	91	
90	496	504	509	5.3	5.2	1	1	1	1	1	1	2	4	5	8	11	15	20	26	34	43	55	69	85	
95	498	507	512	4.9	5.2	1	1	1	1	1	1	1	2	3	5	7	10	15	20	28	39	53	74		

B

Percentile	Achievement Norm Score			Winter-Spring Cond. Growth		Spring Percentile and Score																			
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	
	475	481	485	6.3	4.3	485	488	490	492	493	494	496	497	498	499	500	501	502	503	504	506	507	509	512	
5	475	481	485	6.3	4.3	32	59	76	86	92	95	97	99	99	99	99	99	99	99	99	99	99	99	99	
10	478	484	488	5.9	4.3	15	36	54	68	79	86	91	95	97	98	99	99	99	99	99	99	99	99	99	
15	480	486	490	5.7	4.3	7	22	39	53	66	75	83	89	93	95	97	99	99	99	99	99	99	99	99	
20	481	487	492	5.6	4.3	4	14	27	41	53	64	74	81	87	92	95	97	98	99	99	99	99	99	99	
25	482	489	493	5.4	4.3	2	9	19	31	42	54	64	73	81	86	91	94	97	98	99	99	99	99	99	
30	483	490	494	5.3	4.3	1	6	13	23	33	44	55	64	73	80	86	91	94	97	98	99	99	99	99	
35	484	491	496	5.2	4.3	1	3	9	16	25	35	46	56	65	74	81	87	91	95	97	99	99	99	99	
40	485	492	497	5.1	4.3	1	2	6	12	19	28	37	47	57	66	74	82	88	92	96	98	99	99	99	
45	486	493	498	5.0	4.3	1	1	4	8	14	21	30	39	49	58	67	76	83	89	93	97	99	99	99	
50	487	494	499	4.9	4.3	1	1	2	5	10	16	23	31	41	50	60	69	77	84	90	95	98	99	99	
55	488	495	500	4.8	4.3	1	1	1	4	7	11	17	25	33	42	51	61	70	79	86	92	96	99	99	
60	489	496	501	4.7	4.3	1	1	1	2	4	8	13	19	26	34	43	53	63	72	81	88	94	98	99	
65	490	497	502	4.5	4.3	1	1	1	1	3	5	9	13	19	27	35	44	54	65	75	84	91	97	99	
70	491	498	503	4.4	4.3	1	1	1	1	2	3	6	9	14	20	27	36	45	56	67	78	87	95	99	
75	492	499	504	4.3	4.3	1	1	1	1	1	2	3	6	9	14	20	27	36	46	58	70	81	91	98	
80	493	500	506	4.2	4.3	1	1	1	1	1	1	2	3	5	9	13	19	26	36	47	59	73	86	96	
85	494	502	507	4.0	4.3	1	1	1	1	1	1	1	2	3	5	7	11	17	25	35	47	62	78	93	
90	496	504	509	3.8	4.3	1	1	1	1	1	1	1	1	1	2	3	6	9	14	21	32	46	64	86	
95	498	507	512	3.5	4.3	1	1	1	1	1	1	1	1	1	1	1	3	5	8	14	24	41	68		

C

Percentile	Achievement Norm Score			Fall-Spring Cond. Growth		Spring Percentile and Score																			
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	
	475	481	485	14.4	6.1	485	488	490	492	493	494	496	497	498	499	500	501	502	503	504	506	507	509	512	
5	475	481	485	14.4	6.1	23	40	53	63	71	77	82	87	90	93	95	96	97	98	99	99	99	99	99	
10	478	484	488	13.8	6.1	14	28	40	50	59	66	73	78	83	87	90	93	95	97	98	99	99	99	99	
15	480	486	490	13.4	6.1	10	21	32	42	50	58	65	72	77	82	86	89	92	95	96	98	99	99	99	
20	481	487	492	13.1	6.1	7	17	26	35	44	52	59	66	72	77	82	86	89	92	95	97	98	99	99	
25	482	489	493	12.8	6.1	6	13	22	30	38	46	53	60	66	72	78	82	87	90	93	96	98	99	99	
30	483	490	494	12.6	6.1	4	11	18	26	33	41	48	55	62	68	73	79	83	88	91	94	97	99	99	
35	484	491	496	12.4	6.1	3	9	15	22	29	36	43	50	57	63	69	75	80	85	89	93	96	98	99	
40	485	492	497	12.2	6.1	3	7	12	19	25	32	39	45	52	59	65	71	77	82	87	91	95	97	99	
45	486	493	498	11.9	6.1	2	6	10	16	22	28	34	41	48	54	61	67	73	79	84	89	93	97	99	
50	487	494	499	11.7	6.1	1	4	8	13	19	24	30	37	43	50	57	63	70	76	82	87	92	96	99	
55	488	495	500	11.5	6.1	1	4	7	11	16	21	27	33	39	46	52	59	66	72	78	84	90	94	98	
60	489	496	501	11.3	6.1	1	3	6	9	13	18	23	29	35	41	48	55	61	68	75	82	88	93	98	
65	490	497	502	11.1	6.1	1	2	4	7	11	15	20	25	31	37	43	50	57	64	71	78	85	91	97	
70	491	498	503	10.9	6.1	1	2	3	6	9	12	17	21	27	32	39	45	52	59	67	75	82	89	96	
75	492	499	504	10.6	6.1	1	1	3	4	7	10	14	18	23	28	34	40	47	54	62	70	78	87	95	
80	493	500	506	10.4	6.1	1	1	2	3	5	8	11	14	18	23	29	35	41	48	56	65	74	83	93	
85	494	502	507	10.1	6.1	1	1	1	2	4	5	8	11	14	18	23	28	35	42	50	58	68	79	90	
90	496	504	509	9.7	6.1	1	1	1	1	2	4	5	7	10	13	17	22	27	34	41	50	60	72	86	
95	498	507	512	9.1	6.1	1	1	1	1	1	2	3	4	5	8	10	14	18	23	29	37	48	60	77	

Table 3.12. Snapshot of Norms—Phonics & Word Recognition, Grade 1

A

Percentile	Achievement Norm Score			Fall-Winter Cond. Growth		Winter Percentile and Score																		
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
	487	491	493	6.1	4.0	491	494	496	497	498	499	500	501	502	503	504	505	506	507	508	510	511	513	516
5	487	491	493	6.1	4.0	32	58	75	85	91	95	97	98	99	99	99	99	99	99	99	99	99	99	99
10	490	494	496	5.7	4.0	15	36	54	67	78	85	90	94	96	98	99	99	99	99	99	99	99	99	99
15	491	496	498	5.4	4.0	8	22	38	53	65	75	82	88	92	95	97	98	99	99	99	99	99	99	99
20	493	497	500	5.2	4.0	4	14	27	40	53	64	73	80	86	91	94	96	98	99	99	99	99	99	99
25	494	498	501	5.0	4.0	2	9	19	31	42	53	64	72	80	86	90	94	96	98	99	99	99	99	99
30	495	499	502	4.8	4.0	1	6	13	23	33	44	54	64	72	80	86	90	94	97	98	99	99	99	99
35	496	500	503	4.6	4.0	1	4	9	17	26	36	46	55	65	73	80	86	91	94	97	99	99	99	99
40	497	501	504	4.5	4.0	1	2	6	12	20	28	37	47	57	66	74	81	87	92	95	98	99	99	99
45	498	502	505	4.3	4.0	1	1	4	8	14	22	30	39	49	58	67	75	82	88	93	96	98	99	99
50	499	503	506	4.2	4.0	1	1	3	6	10	16	24	32	41	50	59	68	77	84	90	94	97	99	99
55	500	504	507	4.0	4.0	1	1	2	4	7	12	18	25	33	42	52	61	70	78	86	92	96	99	99
60	501	505	508	3.9	4.0	1	1	1	2	5	8	13	19	26	34	43	53	63	72	81	88	94	98	99
65	502	506	509	3.7	4.0	1	1	1	1	3	6	9	14	20	27	35	45	54	65	74	83	91	96	99
70	503	507	510	3.6	4.0	1	1	1	1	2	4	6	10	14	20	28	36	46	56	67	77	87	94	99
75	504	508	511	3.4	4.0	1	1	1	1	1	2	4	6	10	14	20	28	37	47	58	69	81	91	98
80	506	510	512	3.2	4.0	1	1	1	1	1	1	2	4	6	9	14	20	27	36	47	60	73	86	96
85	507	511	514	3.0	4.0	1	1	1	1	1	1	1	2	3	5	8	12	18	26	35	47	62	78	93
90	509	513	516	2.7	4.0	1	1	1	1	1	1	1	1	1	2	4	6	10	15	22	33	47	65	85
95	512	516	519	2.2	4.0	1	1	1	1	1	1	1	1	1	1	2	3	5	9	15	25	42	68	99

B

Percentile	Achievement Norm Score			Winter-Spring Cond. Growth		Spring Percentile and Score																		
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
	487	491	493	3.9	3.6	493	496	498	500	501	502	503	504	505	506	507	508	509	510	511	512	514	516	519
5	487	491	493	3.9	3.6	34	65	82	91	95	98	99	99	99	99	99	99	99	99	99	99	99	99	99
10	490	494	496	3.6	3.6	14	38	58	74	84	91	95	97	99	99	99	99	99	99	99	99	99	99	99
15	491	496	498	3.4	3.6	6	22	40	56	70	80	87	92	96	98	99	99	99	99	99	99	99	99	99
20	493	497	500	3.3	3.6	3	13	27	42	56	68	78	85	91	95	97	98	99	99	99	99	99	99	99
25	494	498	501	3.1	3.6	1	7	17	30	43	56	68	77	84	90	94	97	98	99	99	99	99	99	99
30	495	499	502	3.0	3.6	1	4	11	21	33	45	57	68	77	84	90	94	97	98	99	99	99	99	99
35	496	500	503	2.9	3.6	1	2	7	14	24	35	46	58	68	77	84	90	94	97	99	99	99	99	99
40	497	501	504	2.8	3.6	1	1	4	9	17	26	37	48	58	69	77	85	91	95	97	99	99	99	99
45	498	502	505	2.7	3.6	1	1	2	6	11	19	28	38	49	59	69	78	86	91	95	98	99	99	99
50	499	503	506	2.6	3.6	1	1	1	4	7	13	20	29	39	50	61	71	80	87	93	97	99	99	99
55	500	504	507	2.5	3.6	1	1	1	2	5	9	14	22	31	41	51	62	72	81	89	94	98	99	99
60	501	505	508	2.4	3.6	1	1	1	1	3	5	10	15	23	32	42	53	64	74	83	91	96	99	99
65	502	506	509	2.3	3.6	1	1	1	1	2	3	6	10	16	23	32	43	54	65	76	86	93	98	99
70	503	507	510	2.2	3.6	1	1	1	1	1	2	3	6	10	16	23	33	43	55	67	79	89	96	99
75	504	508	511	2.1	3.6	1	1	1	1	1	1	2	3	6	10	16	23	33	44	57	70	83	93	99
80	506	510	512	1.9	3.6	1	1	1	1	1	1	1	2	3	6	9	15	22	32	44	58	73	88	97
85	507	511	514	1.8	3.6	1	1	1	1	1	1	1	1	1	2	5	8	13	20	30	44	60	78	94
90	509	513	516	1.6	3.6	1	1	1	1	1	1	1	1	1	1	2	3	5	10	16	27	42	62	86
95	512	516	519	1.3	3.6	1	1	1	1	1	1	1	1	1	1	1	1	2	5	9	18	35	66	99

C

Percentile	Achievement Norm Score			Fall-Spring Cond. Growth		Spring Percentile and Score																		
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
	487	491	493	9.4	4.8	493	496	498	500	501	502	503	504	505	506	507	508	509	510	511	512	514	516	519
5	487	491	493	9.4	4.8	28	50	66	76	84	89	93	95	97	98	99	99	99	99	99	99	99	99	99
10	490	494	496	8.8	4.8	15	33	48	60	70	78	84	89	92	95	97	98	99	99	99	99	99	99	99
15	491	496	498	8.4	4.8	9	23	36	48	59	68	75	82	87	90	93	96	97	98	99	99	99	99	99
20	493	497	500	8.1	4.8	6	16	27	38	49	59	67	74	80	86	90	93	95	97	98	99	99	99	99
25	494	498	501	7.8	4.8	4	11	21	31	41	50	59	67	74	80	85	90	93	96	97	99	99	99	99
30	495	499	502	7.6	4.8	2	8	16	24	34	43	52	60	68	75	81	86	90	93	96	98	99	99	99
35	496	500	503	7.4	4.8	2	6	12	19	28	36	45	53	61	69	75	81	87	91	94	97	98	99	99
40	497	501	504	7.2	4.8	1	4	9	15	22	30	38	47	55	63	70	77	83	88	92	95	98	99	99
45	498	502	505	7.0	4.8	1	3	7	12	18	25	32	40	48	56	64	71	78	84	89	93	97	99	99
50	499	503	506	6.8	4.8	1	2	5	9	14	20	27	34	42	50	58	66	73	80	86	91	95	98	99
55	500	504	507	6.6	4.8	1	1	3	7	11	16	22	29	36	44	52	60	68	75	82	88	93	97	99
60	501	505	508	6.4	4.8	1	1	2	5	8	12	17	23	30	38	45	54	62	70	78	85	91	96	99
65	502	506	509	6.2	4.8	1	1	2	3	6	9	14	19	25	31	39	47	55	64	73	81	88	94	99
70	503	507	510	6.0	4.8	1	1	1	2	4	7	10	14	20	26	32	40	48	57	66	76	84	92	98
75	504	508	511	5.7	4.8	1	1	1	1	3	5	7	11	15	20	26	33	41	50	59	69	79	89	96
80	506	510	512	5.5	4.8	1	1	1	1	2	3	5	7	10	15	20	26	33	42	51	62	73	84	94
85	507	511	514	5.1	4.8	1	1	1	1	1	2	3	4	7	10	14	19	25	32	41	52	64	78	91
90	509	513	516	4.8	4.8	1	1	1	1	1	1	1	2	4	5	8	11	16	22	30	40	52	67	85
95	512	516	519	4.2	4.8	1	1	1	1	1	1	1	1	1	2	3	5	7	11	16	24	34	50	72

Table 3.13. Snapshot of Norms—Phonics & Word Recognition, Grade 2

A

Percentile	Achievement Norm Score			Fall-Winter Cond. Growth		Winter Percentile and Score																		
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
	494	497	499	500	502	503	504	505	506	507	508	509	510	511	512	513	514	516	519	521	514	516	519	521
5	492	494	496	3.6	3.5	34	64	81	90	95	98	99	99	99	99	99	99	99	99	99	99	99	99	99
10	495	497	499	3.4	3.5	14	37	58	73	83	90	94	97	98	99	99	99	99	99	99	99	99	99	99
15	497	499	500	3.2	3.5	6	22	40	56	70	80	87	92	95	97	99	99	99	99	99	99	99	99	99
20	498	500	502	3.1	3.5	3	13	27	42	56	68	78	85	91	94	97	98	99	99	99	99	99	99	99
25	499	502	503	3.0	3.5	1	7	17	30	43	56	67	77	84	90	94	96	98	99	99	99	99	99	99
30	500	503	504	2.9	3.5	1	4	11	21	33	45	57	67	76	84	89	94	96	98	99	99	99	99	99
35	501	504	505	2.8	3.5	1	2	7	14	24	35	46	57	68	77	84	90	94	97	98	99	99	99	99
40	502	505	506	2.7	3.5	1	1	4	9	17	26	37	48	58	68	77	85	90	94	97	99	99	99	99
45	503	506	507	2.6	3.5	1	1	3	6	12	19	28	38	49	59	69	78	85	91	95	98	99	99	99
50	504	507	508	2.5	3.5	1	1	1	4	8	13	21	30	40	50	61	71	79	87	92	96	99	99	99
55	505	508	509	2.4	3.5	1	1	1	2	5	9	15	22	31	41	51	62	72	81	89	94	98	99	99
60	506	509	510	2.4	3.5	1	1	1	3	6	10	16	23	32	42	53	64	74	83	91	96	99	99	99
65	507	510	511	2.3	3.5	1	1	1	2	3	6	10	16	24	32	43	54	65	76	86	93	98	99	99
70	508	511	512	2.2	3.5	1	1	1	1	2	4	6	11	16	24	33	44	55	67	79	89	96	99	99
75	509	512	513	2.1	3.5	1	1	1	1	1	2	4	6	10	16	23	33	44	57	70	83	93	99	99
80	510	513	515	2.0	3.5	1	1	1	1	1	1	2	3	6	10	15	22	32	44	58	73	87	97	99
85	512	514	516	1.8	3.5	1	1	1	1	1	1	1	1	1	3	5	8	13	20	31	44	60	78	94
90	513	516	518	1.7	3.5	1	1	1	1	1	1	1	1	1	2	3	6	10	17	27	42	63	86	99
95	516	519	521	1.4	3.5	1	1	1	1	1	1	1	1	1	1	1	1	2	5	10	19	36	66	99

B

Percentile	Achievement Norm Score			Winter-Spring Cond. Growth		Spring Percentile and Score																		
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
	496	499	500	502	503	504	505	506	507	508	509	510	511	512	513	515	516	518	521	516	518	521	516	518
5	492	494	496	2.8	3.6	34	64	81	90	95	98	99	99	99	99	99	99	99	99	99	99	99	99	99
10	495	497	499	2.6	3.6	14	37	58	73	83	90	94	97	98	99	99	99	99	99	99	99	99	99	99
15	497	499	500	2.4	3.6	6	22	40	56	69	80	87	92	95	97	99	99	99	99	99	99	99	99	99
20	498	500	502	2.2	3.6	3	13	27	42	56	68	78	85	90	94	97	98	99	99	99	99	99	99	99
25	499	502	503	2.1	3.6	1	7	18	30	43	56	67	77	84	90	94	96	98	99	99	99	99	99	99
30	500	503	504	2.0	3.6	1	4	11	21	33	45	57	67	76	84	89	94	96	98	99	99	99	99	99
35	501	504	505	1.9	3.6	1	2	7	14	24	35	46	57	68	76	84	90	94	97	98	99	99	99	99
40	502	505	506	1.8	3.6	1	1	4	10	17	26	37	48	58	68	77	84	90	94	97	99	99	99	99
45	503	506	507	1.7	3.6	1	1	3	6	12	19	28	38	49	59	69	78	85	91	95	98	99	99	99
50	504	507	508	1.6	3.6	1	1	1	4	8	13	21	30	40	50	61	70	79	87	92	96	99	99	99
55	505	508	509	1.5	3.6	1	1	1	2	5	9	15	22	31	41	51	62	72	81	88	94	98	99	99
60	506	509	510	1.4	3.6	1	1	1	3	6	10	16	23	32	42	53	63	74	83	91	96	99	99	99
65	507	510	511	1.3	3.6	1	1	1	2	3	6	11	16	24	33	43	54	65	76	86	93	98	99	99
70	508	511	512	1.2	3.6	1	1	1	1	2	4	7	11	16	24	33	44	55	67	79	89	96	99	99
75	509	512	513	1.0	3.6	1	1	1	1	1	2	4	6	10	16	24	33	44	57	70	83	93	99	99
80	510	513	515	1.0	3.6	1	1	1	1	1	1	2	3	6	10	15	23	32	44	58	73	87	97	99
85	512	514	516	1.0	3.6	1	1	1	1	1	1	1	1	1	3	5	8	13	21	31	44	60	78	94
90	513	516	518	1.0	3.6	1	1	1	1	1	1	1	1	1	2	3	6	10	17	27	42	63	86	99
95	516	519	521	1.0	3.6	1	1	1	1	1	1	1	1	1	1	1	1	3	5	10	19	36	66	99

C

Percentile	Achievement Norm Score			Fall-Spring Cond. Growth		Spring Percentile and Score																		
	Fall	Winter	Spring	Mean	SD	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
	496	499	500	502	503	504	505	506	507	508	509	510	511	512	513	515	516	518	521	516	518	521	516	518
5	492	494	496	5.7	4.2	31	56	72	83	89	93	96	98	99	99	99	99	99	99	99	99	99	99	99
10	495	497	499	5.3	4.2	15	35	52	65	76	83	89	93	95	97	98	99	99	99	99	99	99	99	99
15	497	499	500	5.1	4.2	8	23	38	51	63	73	80	86	91	94	96	98	99	99	99	99	99	99	99
20	498	500	502	4.9	4.2	5	15	27	40	52	62	71	79	85	89	93	96	97	99	99	99	99	99	99
25	499	502	503	4.7	4.2	3	10	20	31	42	53	62	71	78	84	89	93	96	97	99	99	99	99	99
30	500	503	504	4.6	4.2	2	7	14	23	33	44	54	63	71	78	84	89	93	96	98	99	99	99	99
35	501	504	505	4.5	4.2	1	4	10	18	26	36	45	55	64	72	79	85	90	94	96	98	99	99	99
40	502	505	506	4.3	4.2	1	3	7	13	20	29	38	47	56	65	73	80	86	91	94	97	99	99	99
45	503	506	507	4.2	4.2	1	2	5	9	15	23	31	40	49	57	66	74	81	87	92	96	98	99	99
50	504	507	508	4.1	4.2	1	1	3	7	11	17	25	33	41	50	59	68	76	83	89	93	97	99	99
55	505	508	509	4.0	4.2	1	1	2	5	8	13	19	26	34	43	52	61	69	77	85	91	95	98	99
60	506	509	510	3.9	4.2	1	1	1	3	6	9	14	20	27	35	44	53	62	71	80	87	93	97	99
65	507	510	511	3.7	4.2	1	1	1	2	4	7	10	15	21	28	36	45	55	64	74	83	90	96	99
70	508	511	512	3.6	4.2	1	1	1	1	2	4	7	11	16	22	29	37	47	56	67	77	86	94	99
75	509	512	513	3.5	4.2	1	1	1	1	1	3	5	7	11	16	22	29	38	48	58	69	80	90	97
80	510	513	515	3.3	4.2	1	1	1	1	1	3	4	7	11	15	21	29	38	48	60	73	85	96	99
85	512	514	516	3.1	4.2	1	1	1	1	1	1	2	4	6	9	14	20	27	37	49	62	78	92	99
90	513	516	518	2.9	4.2	1	1	1	1	1	1	1	2	3	5	7	11	17	24	35	48	65	85	99
95	516	519	521	2.5	4.2	1	1	1	1	1	1	1	1	1	1	2	4	7	11	17	28	44	69	99

Table 3.14. Snapshot of Norms—Phonics & Word Recognition, Grade 3

A

Percentile	Achievement Norm Score		Fall-Winter Cond. Growth		Winter Percentile and Score																			
					5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	
	Fall	Winter	Spring	Mean	SD	495	498	500	501	503	504	505	506	507	508	509	510	511	512	513	514	515	517	520
5	494	495	496	2.8	3.4	35	67	84	92	96	98	99	99	99	99	99	99	99	99	99	99	99		
10	496	498	499	2.6	3.4	13	38	60	76	86	92	96	98	99	99	99	99	99	99	99	99	99		
15	498	500	501	2.4	3.4	5	21	40	58	72	82	89	94	97	98	99	99	99	99	99	99	99		
20	500	501	502	2.3	3.4	2	12	26	42	57	70	80	87	92	96	98	99	99	99	99	99	99		
25	501	503	503	2.2	3.4	1	6	17	30	44	57	69	79	86	91	95	97	99	99	99	99	99		
30	502	504	505	2.2	3.4	1	3	10	20	32	45	58	69	78	86	91	95	97	99	99	99	99		
35	503	505	506	2.1	3.4	1	2	6	13	23	34	46	58	69	78	86	91	95	98	99	99	99		
40	504	506	507	2.0	3.4	1	1	3	8	16	25	36	48	59	70	79	86	92	96	98	99	99		
45	505	507	508	1.9	3.4	1	1	2	5	10	18	27	38	49	60	70	80	87	92	96	98	99		
50	506	508	509	1.9	3.4	1	1	1	3	7	12	19	28	39	50	61	72	81	88	94	97	99		
55	507	509	510	1.8	3.4	1	1	1	2	4	8	13	21	30	40	51	62	73	82	90	95	98		
60	508	510	511	1.7	3.4	1	1	1	1	2	5	8	14	21	31	41	52	64	75	84	92	97		
65	509	511	512	1.7	3.4	1	1	1	1	1	3	5	9	15	22	31	42	54	66	77	87	94		
70	510	512	513	1.6	3.4	1	1	1	1	1	1	3	5	9	15	22	31	43	55	68	80	90		
75	511	513	514	1.5	3.4	1	1	1	1	1	1	1	3	5	9	14	22	31	43	56	70	84		
80	512	514	515	1.4	3.4	1	1	1	1	1	1	1	1	2	5	8	13	20	30	43	58	74		
85	513	515	517	1.3	3.4	1	1	1	1	1	1	1	1	1	2	4	6	11	18	28	42	60		
90	515	517	519	1.2	3.4	1	1	1	1	1	1	1	1	1	1	2	4	8	14	25	40	62		
95	518	520	521	1.0	3.4	1	1	1	1	1	1	1	1	1	1	1	1	2	4	8	16	33		

B

Percentile	Achievement Norm Score		Winter-Spring Cond. Growth		Spring Percentile and Score																			
					5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	
	Fall	Winter	Spring	Mean	SD	496	499	501	502	503	505	506	507	508	509	510	511	512	513	514	515	517	519	521
5	494	495	496	2.2	3.6	34	65	82	91	95	98	99	99	99	99	99	99	99	99	99	99	99		
10	496	498	499	1.9	3.6	14	38	58	74	84	91	95	97	99	99	99	99	99	99	99	99	99		
15	498	500	501	1.8	3.6	6	22	40	57	70	80	87	92	96	98	99	99	99	99	99	99	99		
20	500	501	502	1.6	3.6	3	12	27	42	56	68	78	86	91	95	97	98	99	99	99	99	99		
25	501	503	503	1.5	3.6	1	7	17	30	43	56	68	77	84	90	94	97	98	99	99	99	99		
30	502	504	505	1.4	3.6	1	4	11	21	33	45	57	68	77	84	90	94	97	98	99	99	99		
35	503	505	506	1.3	3.6	1	2	7	14	24	35	46	58	68	77	84	90	94	97	99	99	99		
40	504	506	507	1.2	3.6	1	1	4	9	17	26	37	48	58	69	77	85	91	95	97	99	99		
45	505	507	508	1.1	3.6	1	1	2	6	11	19	28	38	49	59	70	78	86	91	95	98	99		
50	506	508	509	1.0	3.6	1	1	1	4	7	13	20	29	39	50	61	71	80	87	93	97	99		
55	507	509	510	1.0	3.6	1	1	1	2	5	9	14	22	31	41	51	62	72	81	89	94	98		
60	508	510	511	1.0	3.6	1	1	1	1	3	5	10	15	23	32	42	53	64	74	83	91	96		
65	509	511	512	1.0	3.6	1	1	1	1	2	3	6	10	16	23	32	43	54	65	76	86	93		
70	510	512	513	1.0	3.6	1	1	1	1	1	2	3	6	10	16	23	33	43	55	67	79	89		
75	511	513	514	1.0	3.6	1	1	1	1	1	1	2	3	6	10	16	23	33	44	57	70	83		
80	512	514	515	1.0	3.6	1	1	1	1	1	1	1	2	3	6	9	15	22	32	44	58	73		
85	513	515	517	1.0	3.6	1	1	1	1	1	1	1	1	2	4	8	13	20	30	44	60	78		
90	515	517	519	1.0	3.6	1	1	1	1	1	1	1	1	1	2	3	5	10	16	27	42	62		
95	518	520	521	1.0	3.6	1	1	1	1	1	1	1	1	1	1	1	1	2	5	9	18	35		

C

Percentile	Achievement Norm Score		Fall-Spring Cond. Growth		Spring Percentile and Score																			
					5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	
	Fall	Winter	Spring	Mean	SD	496	499	501	502	503	505	506	507	508	509	510	511	512	513	514	515	517	519	521
5	494	495	496	4.1	4.1	32	59	75	85	92	95	97	99	99	99	99	99	99	99	99	99	99		
10	496	498	499	3.9	4.1	15	36	54	68	78	86	91	94	97	98	99	99	99	99	99	99	99		
15	498	500	501	3.7	4.1	7	22	38	53	65	75	83	88	92	95	97	98	99	99	99	99	99		
20	500	501	502	3.5	4.1	4	14	27	41	53	64	73	81	87	91	94	97	98	99	99	99	99		
25	501	503	503	3.4	4.1	2	9	19	31	42	54	64	73	80	86	91	94	97	98	99	99	99		
30	502	504	505	3.3	4.1	1	6	13	23	33	44	55	64	73	80	86	91	94	97	98	99	99		
35	503	505	506	3.2	4.1	1	4	9	17	26	35	46	56	65	73	81	86	91	95	97	99	99		
40	504	506	507	3.1	4.1	1	2	6	12	19	28	37	47	57	66	74	81	87	92	95	98	99		
45	505	507	508	3.0	4.1	1	1	4	8	14	21	30	39	49	58	67	75	82	88	93	96	99		
50	506	508	509	2.9	4.1	1	1	3	6	10	16	23	32	41	50	59	68	77	84	90	95	98		
55	507	509	510	2.8	4.1	1	1	2	4	7	12	18	25	33	42	51	61	70	79	86	92	96		
60	508	510	511	2.7	4.1	1	1	1	2	5	8	13	19	26	34	43	53	63	72	81	88	94		
65	509	511	512	2.6	4.1	1	1	1	1	3	5	9	14	20	27	35	44	54	65	75	84	91		
70	510	512	513	2.5	4.1	1	1	1	1	2	3	6	9	14	20	27	36	46	56	67	77	87		
75	511	513	514	2.4	4.1	1	1	1	1	1	2	4	6	9	14	20	27	36	46	58	70	81		
80	512	514	515	2.2	4.1	1	1	1	1	1	1	2	3	6	9	13	19	27	36	47	60	73		
85	513	515	517	2.1	4.1	1	1	1	1	1	1	1	2	3	5	8	12	17	25	35	47	62		
90	515	517	519	2.0	4.1	1	1	1	1	1	1	1	1	2	3	6	9	14	22	32	46	64		
95	518	520	521	2.0	4.1	1	1	1	1	1	1	1	1	1	1	1	2	3	5	9	15	25		

4. Conclusion and Discussion

This report describes the norming procedure used to develop the K–3 achievement and growth user norms for three domains assessed in Foundational Skills on the English MAP Reading Fluency assessment: Phonological Awareness, Phonics & Word Recognition, and Language Comprehension. This report also provides snapshots of the norms and explains how to interpret them. These norms offer a useful context to schools, teachers, and parents to interpret and understand how students are performing at a point in time and growing over time in measures assessed by these three domains relative to other students in the norming sample, thus permitting evaluation of their performance with reference to other students. They are scheduled to be released in Summer 2022.

While the English MAP Reading Fluency assessments have been used in the field for up to three years, the data used in this study were based on the 2018–2019 test administration. Although this choice was considered the most appropriate given the disruptive impacts of the COVID-19 pandemic on student academic achievement, the data still have some limitations. Users should exercise caution about the limited generalizability of the inferences that are supported by the results in this report. For example, placement or instructional decisions that solely rely on the normative performance of students are likely to be less accurate. The normative information may need to be combined with other evidence about student performance or growth in making placement decisions or other major instructional decisions.

Test scores, by themselves, are of little meaning without tools such as norms to interpret scores within a meaningful context. NWEA is committed to delivering this context with rich comparative data provided by our frequently updated achievement and growth norms. As such, we will continue to monitor student achievements in the MAP Reading Fluency assessments as schools and students are recovering from learning loss due to the pandemic disruption, and we will update these norms accordingly as more appropriate data become available.

5. References

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