R-CBM Narrative Passages

Grades 1 to 8

Technical Manual

Passage Development and Readability Results

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1. Purpose and Intended Use

This manual describes how the Grades 1 to 8 Reading Curriculum-Based Measurement (R-CBM) Narrative Passages were written, how their difficulty was controlled, and the readability results for every passage. It is intended for school psychologists, reading specialists, special educators, and data teams who use the passages for universal screening, survey-level assessment, and frequent progress monitoring of oral reading.

R-CBM grew out of research at the University of Minnesota that identified oral reading of connected text as a valid, reliable, and efficient measure of general reading skill (Deno, Mirkin, & Chiang, 1982; Fuchs, Fuchs, & Deno, 1982). Later studies showed that R-CBM scores distinguish students with reading disabilities from other low achievers (Deno, Marston, Shinn, & Tindal, 1983; Shinn, Ysseldyke, Deno, & Tindal, 1986), and that oral reading fluency reflects a general reading competence that includes comprehension (Shinn, Good, Knutson, Tilly, & Collins, 1992). The development and history of CBM are described by Deno (1992), Jenkins and Fuchs (2012), and the contributors to Espin, McMaster, Rose, and Wayman (2012). The research base for R-CBM is summarized by Miura Wayman, Wallace, Ives Wiley, Ticha, and Espin (2007).

R-CBM is a standardized one-minute oral reading measure. The student reads a passage aloud, and the examiner counts the number of words read correctly (WRC). Because R-CBM is used to make repeated comparisons over time, the most important property of a passage set is that the passages within a grade are as equal in difficulty as possible. Changes in a student's scores should reflect changes in reading skill, not changes in the passages. The development process described here was designed to achieve that goal.

2. Overview of the Passage Sets

Each grade set contains 20 original narrative passages, for a total of 160 passages. Passages in Grades 2 to 8 are exactly 250 words long. Grade 1 passages are exactly 180 words long so that each one fits on a single page in the large Grade 1 student font. Each grade set includes three components:

- **Examiner Copy.** Each passage printed in Arial 12 point with the cumulative number of words shown at the right margin of every line, so the examiner can quickly total words read in one minute. Each page also includes the optional Qualitative Features Checklist (not normed), with Observed and Not Observed boxes for Reads with Accuracy, Reads with Prosody (Expression), Cracks the Code with Automaticity, Has an Effective Strategy for Unfamiliar Words, and Demonstrates Comprehension Self-Monitoring (Self-Corrects Errors).
- **Student Copy.** The identical passage without numbers, printed in a grade-appropriate font and size for the student to read.
- **Readability Statistics.** A table of readability statistics for each passage plus a summary for the set, provided in PDF, Word, and Excel formats.

3. Passage Specifications

Specifications common to all grades

- Original realistic narrative fiction about children and young people in familiar home, school, and community settings.
- A complete story in every passage: characters, a problem, and a resolution, so the reader is never stopped mid-plot when 250 words are reached.
- Third person, past tense throughout.
- Exactly 250 words (180 words in Grade 1). Titles are not counted and are not read as part of the timed sample.
- No numerals, hyphens, dashes, semicolons, or colons. These features create scoring ambiguity (for example, whether “12” or “well-known” is one word or two) and were excluded so that every word is clearly separated by a space.
- Limited dialogue and contractions, with fixed limits by grade, so that punctuation and conversational text do not differ widely across passages.
- Character names unique within each grade, so that a student reading several passages does not meet the same characters twice.
- Content free of violence, frightening themes, brand names, and culturally specific knowledge that would advantage some readers over others.

Grade-specific targets

Each passage had to meet all of the targets for its grade before it was accepted. Sentence length was controlled directly. Difficulty was controlled with two readability formulas: the Spache formula for Grades 1 to 3 and the Dale-Chall formula for Grades 4 to 8, each paired with the Flesch-Kincaid Grade Level.

Grade	Words per sentence	Primary formula target	Flesch-Kincaid target	Paragraphs
Grade 1	6.5 to 8.5	Spache 1.6 to 2.0	0.3 to 1.7	3
Grade 2	9 to 11	Spache 2.3 to 2.7	1.8 to 2.8	1
Grade 3	11 to 13	Spache 3.2 to 3.6	2.8 to 3.8	3
Grade 4	12 to 14	Dale-Chall 4.5 to 5.3	3.8 to 4.6	4
Grade 5	13 to 15	Dale-Chall 5.0 to 5.8	4.8 to 5.6	4
Grade 6	14 to 16	Dale-Chall 5.4 to 6.2	5.8 to 6.6	5
Grade 7	15 to 17	Dale-Chall 5.8 to 6.6	6.8 to 7.6	4 to 5
Grade 8	15 to 18	Dale-Chall 6.2 to 7.0	7.8 to 8.6	4

Dale-Chall targets are raw scores as computed by the software described in Section 5. They are internal calibration values, not grade equivalents.

4. Passage Development Process

Passages were developed in five steps.

Step 1. Written specifications. A detailed specification was prepared for each grade, covering the common requirements in Section 3 and the grade-specific targets for sentence length, readability, paragraphs, dialogue, and contractions.

Step 2. Drafting. Passages were drafted with the assistance of AI writing tools working under the written specifications. For each grade, two independent sets of 10 passages were drafted, each assigned different topic areas, so that the 20 passages cover a wide range of everyday situations without repeating plots.

Step 3. Automated checking and revision. Every draft was measured with an automated checker that counted words and sentences, computed the readability formulas, and flagged any banned characters. Passages that missed any target were revised (for example, by splitting or joining sentences or replacing less familiar words with more familiar ones) and checked again. This cycle was repeated until every passage met every target for its grade.

Step 4. Set equating. The two sets of 10 within each grade were compared and revised further so that the means and spread of the readability values were similar across the full set of 20, keeping the variability among passages small.

Grade 1 length. Grade 1 passages were first written at 250 words. They were then condensed to 180 words, keeping each story's characters, plot, and ending, so that the Student Copy fits on one page at 18 point. The condensed passages were checked and revised again until they met the Grade 1 targets.

Step 5. Final review and formatting. Names were checked for uniqueness within each grade, titles were checked for duplicates, word counts were verified at exactly 250 (180 in Grade 1), and the final Examiner Copy, Student Copy, and Readability Statistics files were generated from the same source text so that all versions match word for word.

Word counting rules

A word is any group of letters separated by spaces. Contractions (for example, didn't) count as one word. Because the passages contain no numerals, hyphens, or dashes, there are no ambiguous cases. Titles are not counted. The cumulative counts on the Examiner Copy follow these same rules.

5. Readability Measures

All statistics were computed with the open-source Python library textstat, version 0.7.13 (textstat, n.d.). Because the formulas are applied by software in exactly the same way to every passage, results are fully consistent and reproducible within and across grades. The definitions below describe exactly how each value was computed.

Basic counts

- **Words.** Number of space-separated words (250, or 180 in Grade 1).
- **Sentences.** Number of sentences ending in a period, question mark, or exclamation point. Following textstat's rules, sentences of two words or fewer are not counted.
- **Words per sentence.** Words divided by sentences (average sentence length, ASL).
- **Syllables per word.** Total syllables (estimated with a pronunciation dictionary) divided by words (ASW).

Spache readability formula (Grades 1 to 3)

The Spache formula was designed for primary-grade materials (Spache, 1953). textstat applies the original 1953 coefficients:

Spache grade = 0.141 × ASL + 0.086 × (percent unfamiliar words) + 0.839

In textstat's version, an unfamiliar word is a unique word of two or more syllables that is not on the Dale-Chall list of familiar words. This differs from the published revised Spache formula, which uses the separate Spache word list, so values can differ somewhat from those produced by other software. The values are best interpreted as a consistent index of relative difficulty.

Dale-Chall readability formula (Grades 4 to 8)

The Dale-Chall formula is based on sentence length and the percentage of words that are not on a list of 3,000 words familiar to most fourth-grade students (Dale & Chall, 1948). textstat applies the 1948 coefficients:

Raw score = 0.1579 × (percent difficult words) + 0.0496 × ASL, plus 3.6365 if difficult words exceed 5 percent

In textstat's version, every word not found on the list counts as difficult, including plurals, regular past-tense and -ing forms, and names, which the original hand-scoring rules treat as familiar. Raw scores are therefore higher than hand-scored values and are not converted to grade bands. They are used here to compare passages with one another within a grade.

Flesch-Kincaid Grade Level (all grades)

$$\text{Grade level} = 0.39 \times \text{ASL} + 11.8 \times \text{ASW} - 15.59$$

Developed for adult materials (Kincaid, Fishburne, Rogers, & Chissom, 1975), this formula is widely used and is reported for every grade so that passages can be compared on a common scale across Grades 1 to 8.

Flesch Reading Ease (all grades)

$$\text{Reading Ease} = 206.835 - 1.015 \times \text{ASL} - 84.6 \times \text{ASW}$$

Scores generally range from 0 to 100, with higher scores indicating easier text (Flesch, 1948). Very easy text, such as the Grade 1 passages, can score slightly above 100.

6. Materials and Typography

Student Copies use fonts and sizes recommended for each age group: highly legible, child-friendly letter forms with generous size and spacing in the primary grades, moving to standard text fonts in the upper grades. All text is black on white, which far exceeds the minimum contrast ratio of 4.5 to 1. Fonts and sizes are identical for every passage within a grade, so typography does not add variability.

Grade	Student Copy font	Line spacing	Layout
Grade 1	Andika, 18 pt	1.2 lines	One page per passage
Grade 2	Andika, 16 pt	1.25 lines	One page per passage
Grades 3 and 4	Verdana, 14 pt	1.4 lines	One page per passage
Grade 5	Arial, 14 pt	1.6 lines	One page per passage
Grades 6 to 8	Arial, 12 pt	1.6 lines	One page per passage

Examiner Copies use Arial 12 point at every grade. Each line is followed by the cumulative word count at the right margin. Andika is a free font from SIL International; if it is not installed on a computer, the Word versions may display a substitute font, but the PDF versions always display correctly. Use the PDF files for printing.

7. Administration and Scoring

The passages are administered with standard R-CBM procedures (Shinn, 1989). In brief:

- Place the Student Copy in front of the student and keep the Examiner Copy for yourself.
- Say the standardized directions, ask the student to begin reading at the top of the page, and start timing for one minute when the student says the first word.
- Mark errors on the Examiner Copy: mispronunciations, substitutions, omissions, and words not read within three seconds (provide the word and continue). Self-corrections within three seconds and insertions are not errors.
- At one minute, mark the last word read. Use the cumulative count on that line to find the total words read, and subtract errors to obtain words read correctly (WRC).

- Grade 1 passages are 180 words. If a student finishes before one minute, record the time in seconds and convert the score to words read correctly per minute (WRC × 60 ÷ seconds).
- For screening, administer three passages and record the median WRC and median errors. For progress monitoring, administer one or more different passages at each session and graph the scores.

8. Readability Results: All Grades

The table below summarizes the 20 passages in each grade. Values are means, with standard deviations in parentheses and the range below. Small standard deviations indicate passages of very similar difficulty.

Grade	Words per sentence	Syllables per word	Spache or Dale-Chall	Flesch-Kincaid	Reading Ease
Grade 1	7.5 (0.2) 7.2 to 7.8	1.14 (0.02) 1.12 to 1.17	Spache 1.91 (0.04) 1.85 to 1.94	0.78 (0.14) 0.64 to 1.10	102.8 (1.2) 100.4 to 104.4
Grade 2	10.2 (0.4) 9.6 to 10.9	1.17 (0.02) 1.13 to 1.22	Spache 2.54 (0.08) 2.41 to 2.68	2.15 (0.20) 1.90 to 2.66	97.8 (1.7) 93.8 to 100.4
Grade 3	11.9 (0.0) 11.9 to 11.9	1.22 (0.01) 1.18 to 1.24	Spache 3.35 (0.05) 3.24 to 3.45	3.40 (0.17) 3.02 to 3.64	91.9 (1.2) 90.2 to 94.6
Grade 4	13.2 (0.0) 13.2 to 13.2	1.24 (0.01) 1.23 to 1.27	D-C 5.19 (0.03) 5.17 to 5.24	4.21 (0.13) 4.03 to 4.50	88.3 (0.9) 86.2 to 89.6
Grade 5	13.9 (0.2) 13.9 to 14.7	1.31 (0.01) 1.27 to 1.33	D-C 5.42 (0.06) 5.34 to 5.59	5.26 (0.12) 5.07 to 5.54	82.2 (1.0) 80.1 to 84.3
Grade 6	15.2 (0.5) 14.7 to 15.6	1.34 (0.02) 1.30 to 1.36	D-C 5.87 (0.08) 5.67 to 6.01	6.11 (0.15) 5.89 to 6.50	78.2 (1.6) 76.3 to 80.7
Grade 7	16.1 (0.5) 15.6 to 16.7	1.39 (0.02) 1.37 to 1.42	D-C 6.25 (0.06) 6.18 to 6.36	7.12 (0.06) 7.05 to 7.26	72.8 (1.2) 70.8 to 74.2
Grade 8	16.7 (0.0) 16.7 to 16.7	1.46 (0.01) 1.44 to 1.48	D-C 6.65 (0.08) 6.55 to 6.80	8.12 (0.12) 7.85 to 8.33	66.6 (0.8) 65.0 to 68.4

Every passage contains 250 words (180 in Grade 1). Spache is reported for Grades 1 to 3 and Dale-Chall (D-C, raw score) for Grades 4 to 8. Statistics computed with textstat 0.7.13.

9. Readability Results by Grade

The tables on the following pages report the readability statistics for each passage. The final row of each table shows the grade mean.

Grade 1

Targets: 6.5 to 8.5 words per sentence; Spache 1.6 to 2.0; Flesch-Kincaid 0.3 to 1.7. Student Copy font: Andika 18 pt.

No.	Title	Words	Sentences	Words per sentence	Syllables per word	Spache	Flesch Kincaid	Reading Ease
1	The Lost Cat	180	24	7.5	1.13	1.94	0.71	103.3
2	Snow Day	180	23	7.8	1.12	1.94	0.64	104.4
3	The Big Rain	180	23	7.8	1.12	1.94	0.64	104.4
4	The Garden Rabbit	180	25	7.2	1.17	1.85	1.05	100.4
5	The Fall Leaves	180	25	7.2	1.14	1.85	0.72	102.7
6	A Bird at the Window	180	25	7.2	1.14	1.90	0.72	102.7
7	The Pond Turtle	180	23	7.8	1.14	1.94	0.90	102.5
8	Dan and the Kite	180	25	7.2	1.14	1.85	0.72	102.7
9	The New Puppy	180	24	7.5	1.16	1.90	0.97	101.5
10	The Summer Picnic	180	25	7.2	1.16	1.85	0.92	101.3
11	The Lost Red Cap	180	24	7.5	1.13	1.90	0.64	103.8
12	The Big Game	180	23	7.8	1.13	1.94	0.77	103.5
13	The Bake Sale	180	24	7.5	1.17	1.90	1.10	100.5
14	A Day at the Lake	180	24	7.5	1.13	1.94	0.64	103.8
15	The Green Kite	180	24	7.5	1.13	1.90	0.71	103.3
16	The Art Club	180	23	7.8	1.13	1.94	0.84	103.0
17	Help at the Shop	180	25	7.2	1.15	1.85	0.79	102.2
18	The New Friend	180	24	7.5	1.14	1.94	0.77	102.9
19	The Frog in the Yard	180	24	7.5	1.13	1.94	0.71	103.3
20	A Trip to the Farm	180	24	7.5	1.13	1.94	0.64	103.8
	Mean	**180**	**24.1**	**7.5**	**1.14**	**1.91**	**0.78**	**102.8**

Grade 2

Targets: 9 to 11 words per sentence; Spache 2.3 to 2.7; Flesch-Kincaid 1.8 to 2.8. Student Copy font: Andika 16 pt.

No.	Title	Words	Sentences	Words per sentence	Syllables per word	Spache	Flesch Kincaid	Reading Ease
1	The Lost Puppy	250	25	10.0	1.19	2.49	2.38	95.8
2	Cookies with Grandma	250	25	10.0	1.22	2.49	2.66	93.8
3	Ben Rides a Bike	250	25	10.0	1.16	2.59	2.00	98.5
4	The Blanket Fort	250	24	10.4	1.15	2.51	2.07	98.8
5	The Class Garden	250	25	10.0	1.18	2.66	2.28	96.5
6	The Big Sandcastle	250	25	10.0	1.18	2.46	2.19	97.2
7	A New Friend	250	24	10.4	1.14	2.48	1.92	99.8
8	The School Play	250	23	10.9	1.14	2.51	2.15	99.0
9	The Snow Day	250	23	10.9	1.13	2.47	1.96	100.4
10	Fishing With Uncle Ray	250	24	10.4	1.15	2.41	2.02	99.1
11	The Red Kite	250	25	10.0	1.16	2.56	1.95	98.9
12	The Little Nest	250	25	10.0	1.16	2.63	2.05	98.2
13	The Lost Book	250	25	10.0	1.19	2.52	2.38	95.8
14	A Day at the Farm	250	26	9.6	1.18	2.68	2.08	97.2
15	The Lemonade Stand	250	26	9.6	1.20	2.44	2.37	95.2
16	A Night Under the Stars	250	25	10.0	1.15	2.66	1.90	99.2
17	The Big Game	250	25	10.0	1.16	2.59	1.95	98.9
18	The Broken Wagon	250	23	10.9	1.15	2.51	2.24	98.3
19	Taking Care of Muffin	250	25	10.0	1.18	2.66	2.23	96.9
20	A Surprise for Mom	250	25	10.0	1.17	2.49	2.14	97.5
	Mean	**250**	**24.6**	**10.2**	**1.17**	**2.54**	**2.15**	**97.8**

Grade 3

Targets: 11 to 13 words per sentence; Spache 3.2 to 3.6; Flesch-Kincaid 2.8 to 3.8. Student Copy font: Verdana 14 pt.

No.	Title	Words	Sentences	Words per sentence	Syllables per word	Spache	Flesch Kincaid	Reading Ease
1	The Lost Kitten	250	21	11.9	1.22	3.34	3.40	91.9
2	The Snow Fort	250	21	11.9	1.21	3.38	3.31	92.6
3	The Bean Plants	250	21	11.9	1.22	3.34	3.40	91.9
4	The Bird Nest	250	21	11.9	1.22	3.34	3.40	91.9
5	The Leaky Roof	250	21	11.9	1.21	3.34	3.31	92.6
6	The Pile of Leaves	250	21	11.9	1.22	3.38	3.45	91.5
7	A Day at the Pond	250	21	11.9	1.22	3.34	3.50	91.2
8	The Birthday Cake	250	21	11.9	1.23	3.31	3.54	90.9
9	The Runaway Kite	250	21	11.9	1.20	3.41	3.17	93.6
10	The Backyard Tent	250	21	11.9	1.19	3.34	3.12	93.9
11	The Lost Library Book	250	21	11.9	1.23	3.34	3.54	90.9
12	The Big Soccer Game	250	21	11.9	1.18	3.41	3.02	94.6
13	A Garden for the Street	250	21	11.9	1.24	3.45	3.64	90.2
14	The Camping Trip	250	21	11.9	1.21	3.31	3.35	92.2
15	The Science Fair Volcano	250	21	11.9	1.22	3.34	3.45	91.5
16	The Lost Brown Dog	250	21	11.9	1.22	3.31	3.40	91.9
17	The Lemonade Stand	250	21	11.9	1.21	3.31	3.35	92.2
18	The Chess Club	250	21	11.9	1.24	3.24	3.64	90.2
19	Helping at the Bakery	250	21	11.9	1.24	3.34	3.64	90.2
20	The Kite Festival	250	21	11.9	1.22	3.38	3.45	91.5
	Mean	**250**	**21.0**	**11.9**	**1.22**	**3.35**	**3.40**	**91.9**

Grade 4

Targets: 12 to 14 words per sentence; Dale-Chall 4.5 to 5.3; Flesch-Kincaid 3.8 to 4.6. Student Copy font: Verdana 14 pt.

No.	Title	Words	Sentences	Words per sentence	Syllables per word	Dale-Chall	Flesch Kincaid	Reading Ease
1	The Lost Kitten	250	19	13.2	1.25	5.17	4.32	87.6
2	The Big Snow Hill	250	19	13.2	1.24	5.17	4.17	88.6
3	A Visitor in the Garden	250	19	13.2	1.25	5.24	4.27	87.9
4	The Night the Lights Went Out	250	19	13.2	1.24	5.17	4.13	88.9
5	A Muddy Mess	250	19	13.2	1.24	5.17	4.17	88.6
6	The Little Robin	250	19	13.2	1.23	5.17	4.08	89.3
7	A Quiet Day at the Lake	250	19	13.2	1.24	5.17	4.13	88.9
8	The Kite That Would Not Fly	250	19	13.2	1.25	5.17	4.32	87.6
9	Rain on the Camping Trip	250	19	13.2	1.25	5.17	4.32	87.6
10	The Frog in the Bucket	250	19	13.2	1.24	5.17	4.17	88.6
11	The Missing Library Book	250	19	13.2	1.27	5.17	4.50	86.2
12	The Broken Fort	250	19	13.2	1.24	5.24	4.17	88.6
13	The Empty Lot	250	19	13.2	1.26	5.17	4.41	86.9
14	The Free Throw	250	19	13.2	1.23	5.24	4.03	89.6
15	Rain at the Lake	250	19	13.2	1.23	5.17	4.03	89.6
16	The Piano Show	250	19	13.2	1.24	5.17	4.17	88.6
17	The Paper Bridge	250	19	13.2	1.26	5.17	4.36	87.2
18	The Missing Cat	250	19	13.2	1.25	5.17	4.32	87.6
19	Lost on the Trail	250	19	13.2	1.23	5.24	4.03	89.6
20	The Great Bake Sale	250	19	13.2	1.24	5.17	4.17	88.6
	Mean	**250**	**19.0**	**13.2**	**1.24**	**5.19**	**4.21**	**88.3**

Grade 5

Targets: 13 to 15 words per sentence; Dale-Chall 5.0 to 5.8; Flesch-Kincaid 4.8 to 5.6. Student Copy font: Arial 14 pt.

No.	Title	Words	Sentences	Words per sentence	Syllables per word	Dale-Chall	Flesch Kincaid	Reading Ease
1	The Missing Kitten	250	18	13.9	1.31	5.40	5.31	81.7
2	The Bird Feeder	250	18	13.9	1.30	5.40	5.21	82.4
3	The Garden Thief	250	18	13.9	1.31	5.40	5.26	82.1
4	Dinner by Candlelight	250	18	13.9	1.31	5.40	5.26	82.1
5	The Kite in the Tree	250	18	13.9	1.30	5.40	5.17	82.8
6	A Safe Place for Bear	250	18	13.9	1.30	5.40	5.21	82.4
7	The Lost Silver Whistle	250	18	13.9	1.31	5.40	5.31	81.7
8	A Quiet Morning at the Lake	250	18	13.9	1.30	5.40	5.17	82.8
9	The Little Robin	250	18	13.9	1.30	5.40	5.17	82.8
10	The Rainy Day Picnic	250	18	13.9	1.30	5.40	5.17	82.8
11	The Missing Library Book	250	18	13.9	1.33	5.34	5.54	80.1
12	Amara and the Muddy Dog	250	17	14.7	1.27	5.44	5.15	84.3
13	The Nervous Goalie	250	18	13.9	1.30	5.53	5.17	82.8
14	The Garden Visitor	250	18	13.9	1.32	5.40	5.45	80.7
15	The Tent That Would Not Stand	250	18	13.9	1.30	5.46	5.12	83.1
16	Rosie's Birthday Cake	250	18	13.9	1.31	5.40	5.31	81.7
17	The Chess Club Challenge	250	18	13.9	1.32	5.46	5.40	81.1
18	Lost at the Museum	250	18	13.9	1.30	5.46	5.21	82.4
19	The Wise Old Owl	250	18	13.9	1.32	5.40	5.45	80.7
20	The Hidden Path	250	18	13.9	1.29	5.59	5.07	83.4
	Mean	**250**	**17.9**	**13.9**	**1.31**	**5.42**	**5.26**	**82.2**

Grade 6

Targets: 14 to 16 words per sentence; Dale-Chall 5.4 to 6.2; Flesch-Kincaid 5.8 to 6.6. Student Copy font: Arial 12 pt.

No.	Title	Words	Sentences	Words per sentence	Syllables per word	Dale-Chall	Flesch Kincaid	Reading Ease
1	The Stubborn Garden	250	17	14.7	1.36	5.88	6.15	77.2
2	A Puppy Named Pepper	250	17	14.7	1.35	5.88	6.10	77.5
3	The Night of the Storm	250	17	14.7	1.36	5.88	6.24	76.5
4	The Lost Kitten	250	17	14.7	1.35	5.82	6.10	77.5
5	Building the Birdhouse	250	17	14.7	1.35	5.82	6.10	77.5
6	The First Snowfall	250	17	14.7	1.35	5.94	6.10	77.5
7	Saving the Turtle	250	17	14.7	1.36	6.01	6.19	76.9
8	The Family Camping Trip	250	17	14.7	1.35	5.94	6.10	77.5
9	The Autumn Leaf Project	250	17	14.7	1.36	5.82	6.24	76.5
10	The Hummingbird Feeder	250	17	14.7	1.36	5.88	6.19	76.9
11	The Volcano That Would Not Erupt	250	16	15.6	1.31	5.93	5.99	80.0
12	The Missing Library Book	250	16	15.6	1.35	5.86	6.41	76.9
13	The Penalty Kick	250	16	15.6	1.31	5.86	5.94	80.3
14	A Night at Pine Lake	250	16	15.6	1.31	5.80	5.94	80.3
15	The Garden Club Problem	250	16	15.6	1.36	5.67	6.50	76.3
16	The Chess Club Match	250	16	15.6	1.32	5.93	6.08	79.3
17	The Dog Walking Job	250	16	15.6	1.32	5.74	6.03	79.6
18	The Bake Sale	250	16	15.6	1.31	5.86	5.99	80.0
19	The Long Bike Ride	250	16	15.6	1.31	5.99	5.99	80.0
20	The New Neighbor	250	16	15.6	1.30	5.93	5.89	80.7
	Mean	**250**	**16.5**	**15.2**	**1.34**	**5.87**	**6.11**	**78.2**

Grade 7

Targets: 15 to 17 words per sentence; Dale-Chall 5.8 to 6.6; Flesch-Kincaid 6.8 to 7.6. Student Copy font: Arial 12 pt.

No.	Title	Words	Sentences	Words per sentence	Syllables per word	Dale-Chall	Flesch Kincaid	Reading Ease
1	The Stubborn Garden	250	16	15.6	1.41	6.24	7.12	71.9
2	The Missing Turtle	250	16	15.6	1.42	6.18	7.26	70.8
3	Snowbound Weekend	250	16	15.6	1.42	6.18	7.21	71.2
4	The Empty Birdhouse	250	16	15.6	1.41	6.18	7.12	71.9
5	Thunder and Courage	250	16	15.6	1.41	6.18	7.12	71.9
6	The Leaf Collection	250	16	15.6	1.40	6.24	7.07	72.2
7	The Kitchen Disaster	250	16	15.6	1.41	6.24	7.17	71.5
8	Fog on the Lake	250	16	15.6	1.40	6.24	7.07	72.2
9	The New Kitten	250	16	15.6	1.41	6.24	7.12	71.9
10	The Spring Flood	250	16	15.6	1.41	6.18	7.12	71.9
11	The Bridge That Sagged	250	15	16.7	1.38	6.23	7.24	72.8
12	Valeria in the Goal	250	15	16.7	1.37	6.36	7.10	73.8
13	The Neglected Garden	250	15	16.7	1.37	6.29	7.10	73.8
14	Lost on the Trail	250	15	16.7	1.37	6.23	7.10	73.8
15	The Chess Tournament	250	15	16.7	1.37	6.29	7.05	74.2
16	The Dog Walking Business	250	15	16.7	1.38	6.29	7.19	73.2
17	The School Newspaper	250	15	16.7	1.37	6.29	7.10	73.8
18	The Canoe Lesson	250	15	16.7	1.37	6.23	7.05	74.2
19	The Bake Sale Mistake	250	15	16.7	1.37	6.36	7.05	74.2
20	The Rocket Launch	250	15	16.7	1.37	6.29	7.05	74.2
	Mean	**250**	**15.5**	**16.1**	**1.39**	**6.25**	**7.12**	**72.8**

Grade 8

Targets: 15 to 18 words per sentence; Dale-Chall 6.2 to 7.0; Flesch-Kincaid 7.8 to 8.6. Student Copy font: Arial 12 pt.

No.	Title	Words	Sentences	Words per sentence	Syllables per word	Dale-Chall	Flesch Kincaid	Reading Ease
1	The Night the Lights Failed	250	15	16.7	1.48	6.61	8.33	65.0
2	The Open Gate	250	15	16.7	1.46	6.61	8.14	66.4
3	The Garden Visitors	250	15	16.7	1.47	6.55	8.23	65.7
4	The First Snow	250	15	16.7	1.46	6.55	8.09	66.7
5	The Fallen Sparrow	250	15	16.7	1.46	6.61	8.09	66.7
6	Lost on the Ridge Trail	250	15	16.7	1.45	6.67	8.04	67.1
7	The Last Box	250	15	16.7	1.46	6.74	8.09	66.7
8	Grandma's Recipe	250	15	16.7	1.45	6.61	8.04	67.1
9	Morning on the Lake	250	15	16.7	1.47	6.67	8.23	65.7
10	The Shy Kitten	250	15	16.7	1.45	6.61	8.04	67.1
11	The Science Fair Setback	250	15	16.7	1.45	6.67	8.04	67.1
12	The Missing Sketchbook	250	15	16.7	1.45	6.80	8.04	67.1
13	The Neighborhood Garden	250	15	16.7	1.45	6.61	8.00	67.4
14	Between the Goalposts	250	15	16.7	1.45	6.74	8.00	67.4
15	The Wrong Trail	250	15	16.7	1.46	6.67	8.19	66.1
16	The Crooked Bookshelf	250	15	16.7	1.46	6.61	8.19	66.1
17	The Chess Tournament	250	15	16.7	1.44	6.80	7.85	68.4
18	The Dog Walking Business	250	15	16.7	1.47	6.55	8.23	65.7
19	The Canoe Trip	250	15	16.7	1.46	6.67	8.14	66.4
20	The Library Fundraiser	250	15	16.7	1.48	6.55	8.33	65.0
	Mean	**250**	**15.0**	**16.7**	**1.46**	**6.65**	**8.12**	**66.6**

10. Limitations and Recommendations

Readability formulas provide an objective, reproducible way to control passage difficulty during development, and they were used here to make passages within each grade as similar as possible. However, readability formulas are only modest predictors of how students actually perform on R-CBM passages. Passages with nearly identical readability values can still produce different mean WRC scores (Ardoin, Suldo, Witt, Aldrich, & McDonald, 2005; Christ & Ardoin, 2009). Form effects of this kind have been documented in widely used commercial passage sets as well (Francis et al., 2008).

For this reason, the readability results in this manual should be viewed as evidence of careful construction, not as final proof of equivalence. The following practices are recommended:

- Field-test the passages with a representative sample of students at each grade and compare mean WRC across passages. Passages that differ substantially from the grade mean can be revised, replaced, or reserved for screening rather than progress monitoring.
- For screening, use the median of three passages to reduce the effect of any single passage.
- For progress monitoring, judge growth from the trend across many data points rather than from a single score.
- Compare scores with published oral reading fluency norms (for example, Hasbrouck & Tindal, 2017) with care, because those norms were collected with different passages.
- Because the readability values were computed by software, they may differ from values obtained with other programs or hand calculation. Compare passages using the values in this manual rather than mixing sources.

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