

upon me by every object within sight or hearing, animate or inanimate. The silver trump of freedom had roused my soul to eternal wakefulness. Freedom now appeared, to disappear no more forever. It was heard in every sound, and seen in every thing. It was ever present to torment me with a sense of my wretched condition. I saw nothing without seeing it, I heard nothing without hearing it, and felt nothing without feeling it. It looked from every star, it smiled in every calm, breathed in every wind, and moved in every storm.

Douglass, Frederick. *Narrative of the Life of Frederick Douglass, an American Slave. Written by Himself.*
Boston: Anti-Slavery Office, 1845.

Figure 5: Annotation of *Narrative of the Life of Frederick Douglass*

Qualitative Measures	Quantitative Measures
<p>Levels of Meaning</p> <p>While the apparent aim of the text is to convince readers of the day of the evils of slavery, there are other aims as well; among the latter, not fully revealed in the excerpt, are Douglass's efforts to assert his own manhood (and that of other black men) and to create an extended analogy between his own literal rise to freedom and a spiritual awakening.</p> <p>Structure</p> <p>The <i>Narrative</i> uses a fairly simple, explicit, and conventional story structure, with events largely related chronologically by a narrator recounting his past. There are some philosophical discussions that may, to the reader just looking for a story, seem like digressions.</p> <p>Language Conventionality and Clarity</p> <p>Douglass's language is largely clear and meant to be accessible. He does, however, use some figurative language (e.g., juxtaposing literal <i>bread</i> with the metaphorical <i>bread of knowledge</i>) and literary devices (e.g., personifying <i>freedom</i>). There are also some now-archaic and unusual words and phrasings (e.g., <i>choice documents</i>).</p> <p>Knowledge Demands</p> <p>The <i>Narrative</i> discusses moderately sophisticated themes. The experiences of slavery Douglass describes are obviously outside students' own experiences, but Douglass renders them vivid. The text is bound by Douglass's authoritative perspective. General background knowledge about slavery and race in mid-nineteenth-century America is helpful, as is knowledge of Christianity, to which Douglass makes frequent reference throughout the excerpt and the work as a whole.</p>	<p>Various readability measures of the <i>Narrative</i> are largely in agreement that it is of appropriate complexity for grades 6–8. A Coh-Metrix analysis calls attention to this excerpt's complex syntax and the abstractness of some of the language (e.g., hard-to-define concepts such as <i>slavery</i> and <i>freedom</i>). Helping to balance out that challenge are the text's storylike structure and the way the text draws clear connections between words and sentences. Readers will still have to make many inferences to interpret and connect the text's central ideas, however.</p> <p>Reader-Task Considerations</p> <p>These are to be determined locally with reference to such variables as a student's motivation, knowledge, and experiences as well as purpose and the complexity of the task assigned and the questions posed.</p> <p>Recommended Placement</p> <p>Both the qualitative and quantitative measures support the Standards' inclusion of the <i>Narrative</i> in the grades 6–8 text complexity band, with the understanding that the text sits at the high end of the range and that it can be reread profitably in later years by more mature students capable of appreciating the deeper messages embedded in the story.</p>

Example 2: *The Grapes of Wrath* (Grades 9–10 Text Complexity Band)

Excerpt

The man took off his dark, stained hat and stood with a curious humility in front of the screen. "Could you see your way to sell us a loaf of bread, ma'am?"

Mae said, "This ain't a grocery store. We got bread to make san'widges."

"I know, ma'am." His humility was insistent. "We need bread and there ain't nothin' for quite a piece, they say."

"F we sell bread we gonna run out." Mae's tone was faltering.

"We're hungry," the man said.

"Whyn't you buy a san'widge? We got nice san'widges, hamburgs."

"We'd sure admire to do that, ma'am. But we can't. We got to make a dime do all of us." And he said embarrassedly, "We ain't got but a little."

Mae said, "You can't get no loaf a bread for a dime. We only got fifteen-cent loafs."

From behind her Al growled, "God Almighty, Mae, give 'em bread."

"We'll run out 'fore the bread truck comes."

"Run out then, goddamn it," said Al. He looked sullenly down at the potato salad he was mixing.

Mae shrugged her plump shoulders and looked to the truck drivers to show them what she was up against.

She held the screen door open and the man came in, bringing a smell of sweat with him. The boys edged behind him and they went immediately to the candy case and stared in—not with craving or with hope or even with desire, but just with a kind of wonder that such things could be. They were alike in size and their faces were alike. One scratched his dusty ankle with the toe nails of his other foot. The other whispered some soft message and then they straightened their arms so that their clenched fists in the overall pockets showed through the thin blue cloth.

Mae opened a drawer and took out a long waxpaper-wrapped loaf. "This here is a fifteen-cent loaf."

The man put his hat back on his head. He answered with inflexible humility, "Won't you—can't you see your way to cut off ten cents' worth?"

Al said snarlingly, "Goddamn it, Mae. Give 'em the loaf."

The man turned toward Al. "No, we want ta buy ten cents' worth of it. We got it figgered awful close, mister, to get to California."

Mae said resignedly, "You can have this for ten cents."

"That'd be robbin' you, ma'am."

"Go ahead—Al says to take it." She pushed the waxpapered loaf across the counter. The man took a deep leather pouch from his rear pocket, untied the strings, and spread it open. It was heavy with silver and with greasy bills.

"May soun' funny to be so tight," he apologized. "We got a thousan' miles to go, an' we don' know if we'll make it." He dug in the pouch with a forefinger, located a dime, and pinched in for it. When he put it down on the counter he had a penny with it. He was about to drop the penny back into the pouch when his eye fell on the boys frozen before the candy counter. He moved slowly down to them. He pointed in the case at big long sticks of striped peppermint. "Is them penny candy, ma'am?"

Mae moved down and looked in. "Which ones?"

"There, them stripy ones."

The little boys raised their eyes to her face and they stopped breathing; their mouths were partly opened, their half-naked bodies were rigid.

"Oh—them. Well, no—them's two for a penny."

"Well, gimme two then, ma'am." He placed the copper cent carefully on the counter. The boys expelled their held breath softly. Mae held the big sticks out.

Steinbeck, John. *The Grapes of Wrath*.
New York: Viking, 1967 (1939).

Figure 6: Annotation of *The Grapes of Wrath*

Qualitative Measures	Quantitative Measures
<p>Levels of Meaning</p> <p>There are multiple and often implicit levels of meaning within the excerpt and the novel as a whole. The surface level focuses on the literal journey of the Joads, but the novel also works on metaphorical and philosophical levels.</p>	<p>The quantitative assessment of <i>The Grapes of Wrath</i> demonstrates the difficulty many currently existing readability measures have in capturing adequately the richness of sophisticated works of literature, as various ratings suggest a placement within the grades 2–3 text complexity band. A Coh-Metrix analysis also tends to suggest the text is an easy one since the syntax is uncomplicated and the author uses a conventional story structure and only a moderate number of abstract words. (The analysis does indicate, however, that a great deal of inferencing will be required to interpret and connect the text's words, sentences, and central ideas.)</p>
<p>Structure</p> <p>The text is relatively simple, explicit, and conventional in form. Events are largely related in chronological order.</p>	
<p>Language Conventionality and Clarity</p> <p>Although the language used is generally familiar, clear, and conversational, the dialect of the characters may pose a challenge for some readers. Steinbeck also puts a great deal of weight on certain less familiar words, such as <i>faltering</i>. In various portions of the novel not fully represented in the excerpt, the author combines rich, vivid, and detailed description with an economy of words that requires heavy inferencing.</p>	
<p>Knowledge Demands</p> <p>The themes are sophisticated. The experiences and perspective conveyed will be different from those of many students. Knowledge of the Great Depression, the "Okie Migration" to California, and the religion and music of the migrants is helpful, but the author himself provides much of the context needed for comprehension.</p>	<p>Reader-Task Considerations</p> <p>These are to be determined locally with reference to such variables as a student's motivation, knowledge, and experiences as well as purpose and the complexity of the task assigned and the questions posed.</p>
	<p>Recommended Placement</p> <p>Though considered extremely easy by many quantitative measures, <i>The Grapes of Wrath</i> has a sophistication of theme and content that makes it more suitable for early high school (grades 9–10), which is where the Standards have placed it. In this case, qualitative measures have overruled the quantitative measures.</p>

Example 3: *The Longitude Prize* (Grades 9–10 Text Complexity Band)

Excerpt

From Chapter 1: "A Most Terrible Sea"

At six in the morning I was awaked by a great shock, and a confused noise of the men on deck. I ran up, thinking some ship had run foul of us, for by my own reckoning, and that of every other person in the ship, we were at least thirty-five leagues distant from land; but, before I could reach the quarter-deck, the ship gave a great stroke upon the ground, and the sea broke over her. Just after this I could perceive the land, rocky, rugged and uneven, about two cables' length from us . . . the masts soon went overboard, carrying some men with them . . . notwithstanding a most terrible sea, one of the [lifeboats] was launched, and eight of the best men jumped into her; but she had scarcely got to the ship's stern when she was hurled to the bottom, and every soul in her perished. The rest of the boats were soon washed to pieces on the deck. We then made a raft . . . and waited with resignation for Providence to assist us.

—From an account of the wreck of HMS *Litchfield* off the coast of North Africa, 1758

The *Litchfield* came to grief because no one aboard knew where they were. As the narrator tells us, by his own reckoning and that of everyone else they were supposed to be thirty-five leagues, about a hundred miles, from land. The word "reckoning" was short for "dead reckoning"—the system used by ships at sea to keep track of their position, meaning their longitude and latitude. It was an intricate system, a craft, and like every other craft involved the mastery of certain tools, in this case such instruments as compass, hourglass, and quadrant. It was an art as well.

Latitude, the north-south position, had always been the navigator's faithful guide. Even in ancient times, a Greek or Roman sailor could tell how far north of the equator he was by observing the North Star's height above the horizon, or the sun's at noon. This could be done without instruments, trusting in experience and the naked eye, although it is believed that an ancestor of the quadrant called the astrolabe—"star-measurer"—was known to the ancients, and used by them to measure the angular height of the sun or a star above the horizon.

Phoenicians, Greeks, and Romans tended to sail along the coasts and were rarely out of sight of land. As later navigators left the safety of the Mediterranean to plunge into the vast Atlantic—far from shore, and from the shorebirds that led them to it—they still had the sun and the North Star. And these enabled them to follow imagined parallel lines of latitude that circle the globe. Following a line of latitude—"sailing the parallel"—kept a ship on a steady east-west course. Christopher Columbus, who sailed the parallel in 1492, held his ships on such a safe course, west and west again, straight on toward Asia. When they came across an island off the coast of what would later be called America, Columbus compelled his crew to sign an affidavit stating that this island was no island but mainland Asia.

Dash, Joan. *The Longitude Prize*.
New York: Farrar, Straus and Giroux, 2000. (2000)

Figure 7: Annotation of *The Longitude Prize*

Qualitative Measures	Quantitative Measures
<p>Purpose</p> <p>The single, relatively clear purpose of the text (not fully apparent in the excerpt but signaled by the title) is to recount the discovery of the concept of longitude.</p> <p>Structure</p> <p>The text is moderately complex and subtle in structure. Although the text may appear at first glance to be a conventional narrative, Dash mainly uses narrative elements in the service of illustrating historical and technical points.</p> <p>Language Conventionality and Clarity</p> <p>Language is used literally and is relatively clear, but numerous archaic, domain-specific, and otherwise unfamiliar terms are introduced in the course of citing primary historical sources and discussing the craft, art, and science of navigation.</p> <p>Knowledge Demands</p> <p>The text assumes relatively little prior knowledge regarding seafaring and navigation, but some general sense of the concepts of latitude and longitude, the nature of sailing ships, and the historical circumstances that promoted exploration and trade is useful to comprehending the text.</p>	<p>Various readability measures of <i>The Longitude Prize</i> are largely in agreement that the text is appropriate for the grades 9–10 text complexity band. The Coh-Metrix analysis notes that the text is primarily informational in structure despite the narrative opening. (Recall from “Why Text Complexity Matters,” above, that research indicates that informational texts are generally harder to read than narratives.) While the text relies on concrete language and goes to some effort to connect central ideas for the reader, it also contains complex syntax and few explicit connections between words and sentences.</p> <p>Reader-Task Considerations</p> <p>These are to be determined locally with reference to such variables as a student’s motivation, knowledge, and experiences as well as purpose and the complexity of the task assigned and the questions posed.</p> <p>Recommended Placement</p> <p>The qualitative and quantitative measures by and large agree on the placement of <i>The Longitude Prize</i> into the grades 9–10 text complexity band, which is where the Standards have it.</p>

Reading Foundational Skills

The following supplements the Reading Standards: Foundational Skills (K–5) in the main document (pp. 15–17). See page 37 in the bibliography of this appendix for sources used in helping construct the foundational skills and the material below.

Phoneme-Grapheme Correspondences

Consonants

Common graphemes (spellings) are listed in the following table for each of the consonant sounds. Note that the term *grapheme* refers to a letter or letter combination that corresponds to one speech sound.

Figure 8: Consonant Phoneme-Grapheme Correspondences in English

Phoneme	Word Examples	Common Graphemes (Spellings) for the Phoneme
/p/	pit, spider, stop	p
/b/	bit, brat, bubble	b
/m/	mitt, comb, hymn	m, mb, mn
/t/	tickle, mitt, sipped	t, tt, ed
/d/	die, loved	d, ed
/n/	nice, knight, gnat	n, kn, gn
/k/	cup, kite, duck, chorus, folk, quiet	k, c, ck, ch, lk, q
/g/	girl, Pittsburgh	g, gh
/ng/	sing, bank	ng, n
/f/	fluff, sphere, tough, calf	f, ff, gh, ph, lf
/v/	van, dove	v, ve
/s/	sit, pass, science, psychic	s, ss, sc, ps
/z/	zoo, jazz, nose, as, xylophone	z, zz, se, s, x
/th/	thin, breath, ether	th
/tʰ/	this, breathe, either	th
/sh/	shoe, mission, sure, charade, precious, notion, mission, special	sh, ss, s, ch, sc, ti, si, ci
/zh/	measure, azure	s, z
/ch/	cheap, future, etch	ch, tch
/j/	judge, wage	j, dge, ge
/l/	lamb, call, single	l, ll, le
/r/	reach, wrap, her, fur, stir	r, wr, er/ur/ir
/y/	you, use, feud, onion	y, (u, eu), i
/w/	witch, queen	w, (q)u
/wh/	where	wh
/h/	house, whole	h, wh

*Graphemes in the word list are among the most common spellings, but the list does not include all possible graphemes for a given consonant. Most graphemes are more than one letter.

Vowels

Common graphemes (spellings) are listed in the following table for each of the vowel sounds. Note that the term *grapheme* refers to a letter or letter combination that corresponds to one speech sound.

Figure 9: Vowel Phoneme-Grapheme Correspondences in English

Phoneme	Word Examples	Common Graphemes (Spellings) for the Phoneme*
/ē/	see, these, me, eat, key, happy, chief, either	ee, e_e, -e, ea, ey, -y, ie, ei
/ī/	sit, gym	i, y
/ā/	make, rain, play, great, baby, eight, vein, they	a_e, ai, ay, ea, -y, eigh, ei, ey
/ē/	bed, breath	e, ea
/ă/	cat	a
/ī/	time, pie, cry, right, rifle	i_e, ie, -y, igh, -i
/ō/	fox, swap, palm	o, wa, al
/ū/	cup, cover, flood, tough	u, o, oo, ou
/aw/	saw, pause, call, water, bought	aw, au, all, wa, ough
/ō/	vote, boat, toe, snow, open	o_e, oa, oe, ow, o-,
/ōō/	took, put, could	oo, u, ou
/ū/ [ōō]	moo, tube, blue, chew, suit, soup	oo, u_e, ue, ew, ui, ou
/y//ū/	use, few, cute	u, ew, u_e
/oi/	boil, boy	oi, oy
/ow/	out, cow	ou, ow
er	her, fur, sir	er, ur, ir
ar	cart	ar
or	sport	or

* Graphemes in the word list are among the most common spellings, but the list does not include all possible graphemes for a given vowel. Many graphemes are more than one letter.

Phonological Awareness

General Progression of Phonological Awareness Skills (PreK-1)

Word Awareness (Spoken Language)

Move a chip or marker to stand for each word in a spoken sentence.

- The dog barks. (3)
- The brown dog barks. (4)
- The brown dog barks loudly. (5)

Rhyme Recognition during Word Play

Say "yes" if the words have the same last sounds (rhyme):

- clock/dock (y)
- red/said (y)
- down/boy (n)

Repetition and Creation of Alliteration during Word Play

- Nice, neat Nathan
- Chewy, chunky chocolate

Syllable Counting or Identification (Spoken Language)

A spoken syllable is a unit of speech organized around a vowel sound.

Repeat the word, say each syllable loudly, and feel the jaw drop on the vowel sound:

chair (1) table (2) gymnasium (4)

Onset and Rime Manipulation (Spoken Language)

Within a single syllable, *onset* is the consonant sound or sounds that may precede the vowel; *rime* is the vowel and all other consonant sounds that may follow the vowel.

Say the two parts slowly and then blend into a whole word:

school	onset - /sch/; rime - /ool/
star	onset - /st/; rime - /ar/
place	onset - /pl/; rime - /ace/
all	onset (none); rime - /all/

General Progression of Phoneme Awareness Skills (K-2)

Phonemes are individual speech sounds that are combined to create words in a language system. Phoneme awareness requires progressive differentiation of sounds in spoken words and the ability to think about and manipulate those sounds. Activities should lead to the pairing of phonemes (speech sounds) with *graphemes* (letters and letter combinations that represent those sounds) for the purposes of word recognition and spelling.

Phoneme Identity

Say the sound that begins these words. What is your mouth doing when you make that sound?

milk, mouth, monster /m/ — The lips are together, and the sound goes through the nose.
thick, thimble, thank /th/ — The tongue is between the teeth, and a hissy sound is produced.
octopus, otter, opposite /o/ — The mouth is wide open, and we can sing that sound.

Phoneme Isolation

What is the first speech sound in this word?

ship	/sh/
van	/v/
king	/k/
echo	/e/

What is the last speech sound in this word?

comb	/m/
sink	/k/
rag	/g/
go	/o/

Phoneme Blending (Spoken Language)

Blend the sounds to make a word:

(Provide these sounds slowly.)

/s/ /ay/	say
/ou/ /t/	out
/sh/ /ar/ /k/	shark
/p/ /o/ /s/ /t/	post

Phoneme Segmentation (Spoken Language)

Say each sound as you move a chip onto a line or sound box:

no	/n/ /o/
rag	/r/ /a/ /g/
socks	/s/ /o/ /k/ /s/
float	/f/ /l/ /oa/ /t/

Phoneme Addition (Spoken Language)

What word would you have if you added /th/ to the beginning of "ink"? (think)

What word would you have if you added /d/ to the end of the word "fine"? (find)

What word would you have if you added /z/ to the end of the word "frog"? (frogs)

Phoneme Substitution (Spoken Language)

Say "rope." Change /r/ to /m/. What word would you get? (mope)

Say "chum." Change /u/ to /ar/. What word would you get? (charm)

Say "sing." Change /ng/ to /t/. What word would you get? (sit)

Phoneme Deletion (Spoken Language)

Say "park." Now say "park" without /p/. (ark)

Say "four." Now say "four" without /f/. (or)

Orthography**Categories of Phoneme-Grapheme Correspondences**

Figure 10: Consonant Graphemes with Definitions and Examples

Grapheme Type	Definition	Examples
Single letters	A single consonant letter can represent a consonant phoneme.	b, d, f, g, h, j, k, l, m, n, p, r, s, t, v, w, y, z
Doublets	A doublet uses two of the same letter to spell one consonant phoneme.	ff, ll, ss, zz
Digraphs	A digraph is a two- (di-) letter combination that stands for one phoneme; neither letter acts alone to represent the sound.	th, sh, ch, wh ph, ng (sing) gh (cough) [ck is a guest in this category]
Trigraphs	A trigraph is a three- (tri-) letter combination that stands for one phoneme; none of the letters acts alone to represent the sound.	-tch -dge
Consonants in blends	A blend contains two or three graphemes because the consonant sounds are separate and identifiable. A blend is not "one sound."	s-c-r (scrape) th-r (thrush) c-l (clean) f-t (sift) l-k (milk) s-t (most) and many more
Silent letter combinations	Silent letter combinations use two letters: one represents the phoneme, and the other is silent. Most of these are from Anglo-Saxon or Greek.	kn (knock), wr (wrestle), gn (gnarl), ps (psychology), rh (rhythm), -mb (crumb), -lk (folk), -mn (hymn), -st (listen)
Combination qu	These two letters, always together, usually stand for two sounds, /k/ /w/.	quickly