CHAPTER 3

Reading Standards for Informational Text

Nell K. Duke
Juliet L. Halladay
Kathryn L. Roberts

DEFINING STANDARDS FOR READING INFORMATIONAL TEXT

Informational text plays a prominent role in the Common Core State Standards (CCSS). Standards involving informational text are found in all four major strands of the English language arts standards (reading, writing, language, and speaking and listening), and informational text is implicitly or explicitly entailed in many of the standards for literacy in history/social studies, science, and technical subjects. In fact, the overall approach to literacy in the standards was driven in part by concern about informational text: "Part of the motivation behind the interdisciplinary approach to literacy promulgated by the Standards is extensive research establishing the need for college and career ready students to be proficient in reading complex informational text independently in a variety of content areas" (National Governors Association Center for Best Practices and Council of Chief State School Officers, 2010, p. 5). The CCSS recognize that literacy extends well beyond English class to mediate learning in all content areas and ultimately in college and career.

If the CCSS followed a traditional approach, standards involving informational text would begin in fourth grade, when children are conventionally expected to shift from learning to read to reading to learn (Chall, 1983, 1996). However, in the CCSS, standards for informational text begin in kindergarten. Can kindergarten-age children really learn from and about informational text? Research strongly suggests that they can (Duke, Bennett-Armistead, & Roberts, 2003). For example, kindergarten children can learn to approximate the typical language of informational text if it is read aloud to them (Duke & Kays, 1998; Pappas, 1993).

The CCSS ask for a 50/50 split of literature and informational text in grades K–5 (p. 5). This is quite a bit more use of informational text than is likely to be found in K–5

classrooms presently (Duke, 2000; Jeong, Gaffney, & Choi, 2010; Wright, 2011). However, we have no indication that such an increase would have negative consequences for children. For example, an intervention in which grade 1 teachers aimed for one-third informational text (defined more narrowly than in the CCSS), one-third narrative text, and one-third other genres (including biography, which the CCSS categorize as informational text) throughout the school day showed no negative impacts on children compared with a comparison group. Children made equivalent progress in decoding and encoding (in fact, children in classrooms with relatively low initial alphabet knowledge did better when more informational text was employed) and in narrative writing. Their informational writing and attitudes toward reading were actually higher than those of children in the comparison group (Duke, Martineau, Frank, Rowe, & Bennett-Armistead, 2012). There is also some evidence that young children can develop content knowledge, vocabulary, and fluency through informational text (Fingeret, 2008; Hiebert, 2008; Santoro, Chard, Howard, & Baker, 2008).

As we would expect given only two categories—literature and informational text—the term *informational text* is used quite broadly in the CCSS to include, in grades K–5, "biographies and autobiographies; books about history, social studies, science, and the arts; technical texts, including directions, forms, and information displayed in graphs, charts, or maps; and digital sources on a range of topics." We strongly urge the field to plan exposure and instruction not just for the broad category of informational text but for more specific categories of text within that. For example, it will be important to provide children with exposure to and instruction in directions (what we call procedural or how-to text) and exposure to what is often called expository text, such as text that teaches—for example, about panda bears or Mexico. This exposure to a range of texts is important because different kinds of text have varied purposes: The primary purpose of procedural text is to tell someone how to do something, whereas the goal of expository text (what we have called "informational text" in past writings, defining it more narrowly than the CCSS) is to convey information about the natural or social world (Purcell-Gates, Duke, & Martineau, 2007). These texts also have markedly different features. For example, common procedural text features include having a materials section, having a set of ordered steps, and using imperative verbs (e.g., *cut*, *arrange*). In contrast, common expository text features include opening with a general statement or classification, having a series of paragraphs organized topically, and using timeless verbs (e.g., "Pandas *walk* on four legs"). Furthermore, different strategies or processes are likely to be used to read procedural versus expository text. For example, whereas procedural text must be read (and steps carried out) from beginning to end in order, expository text often need not be read in its entirety or in order: One might turn first to the index of the text, then to the middle of the text, where the desired information is expected to be found, and so on. There is growing evidence that proficiency with one type of text does not necessarily mean proficiency with another (Duke & Roberts, 2010); thus, we need to provide exposure to and instruction with each type of informational text we want children to learn to read and write.

PUTTING THE INFORMATIONAL TEXT STANDARDS INTO PRACTICE

As noted earlier, standards involving informational text are found in all four major strands of the English language arts standards, not only reading but also writing,

language, and speaking and listening. For example, the language standards for second grade include a call to have children use reference materials, including beginning dictionaries, and the speaking and listening standards for kindergarten expect children to "confirm understanding of a text read aloud or information presented orally or through other media. . . ." However, the bulk of the standards involving informational text reading in K–2 come from the reading standards for informational text, K–5, and those are the standards on which we focus in this chapter. Those standards are divided into four categories:

1. Key Ideas and Details
2. Craft and Structure
3. Integration of Knowledge and Ideas
4. Range of Reading and Level of Text Complexity

In this section, we describe instruction appropriate for each of these categories. We draw heavily on the What Works Clearinghouse (WWC) practice guide *Improving Comprehension in Kindergarten through Third Grade* (Shanahan et al., 2010) to articulate effective comprehension instructional practices and on *Reading and Writing Genre with Purpose in K–8 Classrooms* (Duke, Caughlan, Juzwik, & Martin, 2012) for how to tailor comprehension instruction to informational text specifically.

Key Ideas and Details

The Key Ideas and Details standards focus on children identifying, asking, and answering questions about the main topic and key details of a text and making connections among pieces of a text. See Table 3.1 for grade-by-grade detail.

TABLE 3.1. Reading Standards for Informational Text K–2: Key Ideas and Details (Anchor Standards 1–3)

Kindergartners	Grade 1 students	Grade 2 students
1. With prompting support, ask and answer questions about key details in a text.	1. Ask and answer questions about key details in a text.	1. Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
2. With prompting and support, identify the main topic and retell key details of a text.	2. Identify the main topic and retell key details of a text.	2. Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.
3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.	3. Describe the connection between two individuals, events, ideas, or pieces of information in a text.	3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

Foster Children's Motivation

The tasks in Table 3.1 are hard cognitive work for young children. Even older children can struggle with them (e.g., Taylor, 1986; Yussen, Rembold, & Mazor, 1989). For this reason, we highly recommend doing all that is possible to foster children's motivation—to help them want to do this hard work. Research has identified many teacher practices associated with higher levels of student motivation, including (from Brophy, 1987):

- Model interest in learning.
- Induce curiosity and suspense.
- Make abstract materials more concrete and understandable.
- Make learning objectives clear.
- Provide informative feedback.
- Adapt academic tasks to student interests and provide novel content as much as possible.
- Give students choices between alternative tasks.
- Allow students as much autonomy as possible in doing tasks.
- Provide tasks with an appropriate level of challenge/difficulty.

In the primary grades specifically, Pressley and colleagues (2003), in their observational study of eight third-grade teachers, found that the two teachers whose students were rated as most highly engaged used 63 and 74 different practices, respectively, that support motivation! It is for good reason that the WWC Panel on Improving Comprehension in Kindergarten through Third Grade had as one of its five recommendations "Establish an engaging and motivating context in which to teach reading comprehension."

With informational text, selecting engaging texts on engaging topics is likely to be very important (e.g., Guthrie, McRae, & Klauda, 2007; Jiménez & Duke, 2011). Even as early as preschool, topics that some children find engaging other children may find disengaging (Renninger & Wozniak, 1985), so sometimes grouping children for reading instruction by common interests is advised (Guthrie & McCann, 1996). We also recommend keeping individual children's interests in mind when identifying books and other texts they can choose among for independent or home reading. Indeed, choice itself fosters motivation. Thus, rather than approach a reading group with "the book we are going to read today," consider offering two or three titles from which the children can choose through a vote or by rotating who gets to select the text.

Also important to fostering motivation to comprehend informational text is providing some reason to read it beyond being told or asked to do so (Guthrie et al., 2007). It appears that children's informational text comprehension develops better when they are regularly reading informational text for the same reasons people read this kind of text outside of school: because they want or need to know information (Duke, Purcell-Gates, Hall, & Tower, 2006/2007; Purcell-Gates et al., 2007). For example, children might read (or listen to) informational text to inform a letter the class is writing to the mayor about an issue in their community, or to answer questions from their pen pals about a topic they are studying in school, or to figure out what they should feed a ladybug they caught on the playground. They have some larger purpose for engaging in the hard work of grappling with key ideas and details in informational text.

Teach Comprehension Strategies

It is not enough to simply motivate children to grasp main idea and details in text; we also need to teach them *how* to do it. The WWC practice guide panel referenced earlier identifies teaching comprehension strategies as one of their five recommendations and the one with the strongest evidence. A full description of how to teach comprehension strategies is well beyond the scope of this chapter, but briefly teaching comprehension strategies should involve the following:

- Explicitly explaining the strategy, including when and how to use it.
- Modeling the strategy by "thinking aloud" as you use it while reading aloud to children.
- Collaboratively practicing use of the strategy, with you and the children working together to apply it.
- Guided practice in which children are primarily responsible for applying the strategy but you are available to provide prompting, coaching, and support as needed.
- Independent practice in which children work to apply the strategy on their own as they read or are being read to.

(See Duke & Pearson, 2002; Shanahan et al., 2010; and the Doing What Works website [*http://dww.ed.gov/Reading-Comprehension/topic/?T_ID=36*] for more information.)

Many specific strategies are deserving of instruction, such as activating background knowledge; predicting; questioning; visualizing; monitoring, clarifying, and fixing up; drawing inferences (often making connections); and summarizing. Summarizing, both for sections of the text and the text as the whole, is perhaps most closely related to the CCSS listed in Table 3.1. The vignette that follows provides one example of how a teacher might teach this strategy and do so in a motivating context as described earlier.[1]

INFORMATIONAL TEXT STANDARDS IN ACTION:
KEY IDEAS AND DETAILS

Ms. Jones starts off Morning Meeting with her second-grade students with an announcement. Mr. Williams, the other second-grade teacher in the building, is concerned because his students have been picking out a lot of information books that they don't end up liking. He thinks Ms. Jones's class might be able to help by sending over reviews—good and bad—of information books they have been reading. Ms. Jones asks the children whether they would like to help out and gets a resounding "Yes!" in response.

Over the next several days, Ms. Jones shares a variety of book reviews with the children, including some by and for adults (e.g., from the *New York Times Review of Books*) and some by and for children (e.g., from the Spaghetti Book Club [*www.spaghettibookclub.org/about. html*] and Scholastic's Share What You're Reading [*http://teacher.scholastic.com/activities/ swyar/*]), and she teaches a common format/template for a review:

---

[1]This and other vignettes in the chapter are amalgamated from several observations and sources and should not be viewed as representing the practice of any specific teacher.

- Title and author of the book
- Name of the reviewer
- Engaging opening (e.g., "Did you know that . . . ?") about interesting facts from the book
- Summary of the book
- Evaluation of the book (e.g., "I liked this book because . . . ")

(Notice how this format draws children's attention to notable details and key ideas, as required by the CCSS.) Ms. Jones reads two information books aloud and works collaboratively with the children to write whole-class reviews of each. From there she supports individual children in writing their own reviews of information books from read-alouds and guided and independent reading (making sure that each child reviews a different book).

To support children's review writing, Ms. Jones teaches a series of lessons on summarizing, with particular focus on identifying the main topic of a text. She provides lessons involving explicit explanation, modeling, collaborative practice, and guided practice. For example, she explains and models and then guides children in small groups to look at the title and to notice repeated words in text to help figure out the text topic. In one of her favorite lessons, Ms. Jones pretends to be mistaken about the main topic of a book she'd read to children. She claims that a particular detail in the book was the main topic. The children protest. Ms. Jones argues, "But that part is so interesting!" The children giggle as they explain to Ms. Jones that the main topic is not the most interesting part, it's what the book is mostly about! Then Ms. Jones says, "OK, here's my summary of the book: It's about dogs." The children giggle again, explaining that Ms. Jones needs to say more than that. Together, the children help Ms. Jones construct a better summary of the book. Throughout lessons and their independent work, the children work hard to apply the strategies they are learning, eager to provide quality reviews for Mr. Williams's second graders.

Craft and Structure

The Craft and Structure standards engage children in meta-textuality—in thinking about text as text. In Standard 4, children are expected to think about the words and phrases they know and do not know in informational text. In Standard 5, they are expected to think about specific parts and features of text, particularly in grades 2 and 3, those that allow one to navigate the text. In Standard 6, they think about the creation of text—the author and the illustrator, the words and the pictures, and the purposes for which text is written. See Table 3.2 for grade-by-grade detail.

There is remarkably little research on the impact of instruction for K–2 children in the areas named in the Craft and Structure standards. One thing we can be fairly sure of is that children will vary considerably in these areas even in the earliest years of school depending on their home and preschool experiences with written text. It appears that children will also vary a great deal in their ability to navigate text. In one recent study, 78% of K–2 children were able to navigate within a website while 22% of children in that same grade range were not (Dodge, Husain, & Duke, 2011). Twenty-four percent were able to use a search engine and navigation to find information on a specific topic (panda bears), and 76% were not. As in so many areas, teachers will be faced with the challenge of bringing some children a long way to reach the standards while also stimulating those who have already met them.

TABLE 3.2. Reading Standards for Informational Text K–2: Craft and Structure (Anchor Standards 4–6)

Kindergartners	Grade 1 students	Grade 2 students
4. With prompting support, ask and answer questions about unknown words in a text.	4. Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.	4. Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.
5. Identify the front cover, back cover, and title page of a book.	5. Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.	5. Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in text efficiently.
6. Name the author and illustrator of a text and define the role of each in presenting the ideas or information in text.	6. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.	6. Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

INFORMATIONAL TEXT STANDARDS IN ACTION: CRAFT AND STRUCTURE

Ms. Grifaldi leads a shared reading of *Rainforest Colors* (Canizares & Chessen, 1998) with her first graders and then begins reading aloud the information contained in the back of the book. As she reads the section on the yellow flower and frog featured in the book, she finds herself flipping back trying to find those pages to show the children. She notes to the children, "This is tricky. You know what would really help?" Having seen Ms. Grifaldi model use of an index several times, some children chime in, "An index!" Ms. Grifaldi reminds the rest of the group what an index is and what it is for. She shows them that this book does not have an index and then talks about why it would be helpful to have one.

Following this, the children work independently and in small groups to develop an index for each classroom copy of the book. They realize that this also involves making page numbers for the book. When they finish, the children are proud of their indexes (see Figure 3.1 for an example), which Ms. Grifaldi attaches to each book using correction tape. She notices many children looking closely at the indexes during free-choice time and sometimes actually using them—for example, to find the plant and frog of their favorite color.

Improve-a-Text

The activity described in the vignette uses a technique we call "Improve-a-Text." In Improve-a-Text, children are engaged in adding to a published text to make it better. They might add an explanation of a word likely to be unfamiliar to readers or add an entire glossary for a text, experiences that will help move them toward meeting Standards 4 and 5 for informational reading. They might add navigational devices, such as

FIGURE 3.1. A child's index for *Rainforest Colors* (Canizares & Chessen, 1998).

an index or a table of contents, headings, and subheadings, which will help move them toward meeting Standard 5. They might add captions to photos or illustrations or a back cover blurb articulating the purpose of the text, addressing Standard 6. This activity can include a range of types of informational text; for example, numbers could be added to the steps included in directions/procedural/how-to text, or headings could be added to sections of a biography.

In our experience, creating text features from scratch or improving upon existing features pushes children to take a close look at the characteristics and purposes of each feature, more so, even, than when they are just reading or using them. For example, if children create a glossary for a text, they have to think about what which words might be unfamiliar to readers, which words are important enough to be in a glossary, what makes words important enough to be in the glossary, how the glossary is organized, and what types of things belong in a definition or explanation of a word. (For more about vocabulary instruction, see Chapter 7.) The activity may also encourage children to read with a "reviser's eye," meaning that they are not just trying to understand the text but also actively working to make it understandable (Beck, McKeown, Sandora, Kucan, & Worthy, 1996).

In addition, text feature creation, as it is described in the vignette, meets the criterion discussed earlier of having a purpose in children's minds beyond just learning to read or

satisfy a teacher: The books actually *need* these features for readers to be able to access or learn information more easily. As noted earlier, these kinds of purposeful tasks are associated with greater growth in comprehension (and writing skill) (Purcell-Gates et al., 2007). They can also serve as a motivator for many children (Guthrie et al., 2004).

Carrying Out Improving a Text. To get started using Improve-a-Text, choose a book that is relevant to what your students are currently learning. You will want this text to be of good quality and only in need of a few additions so it is not too overwhelming for the children to modify. Then:

- If you know an obvious feature is missing (e.g., table of contents, index, glossary), you may choose to preview the book and ask children whether they notice any text features that could be added to make the text more user-friendly.
- Better yet, in order to underscore the authentic need for the feature, you could begin reading the book, attempt to use a feature at an appropriate moment (e.g., if a child asked what bears eat, you could attempt to use the table of contents or index) and "discover" with your class that it is missing.
- If the feature is more subtle (e.g., a picture that would be more comprehensible if labeled like a diagram), the suggestion for improvement may come from you or the children during the course of reading.
- To facilitate child-initiated changes, you may want to get them into the habit of using a particular phrase such as, "This text would be better if . . . "

From this point, you can move into creating or modifying the feature as a class, in small groups, or individually. Finally, be sure that the "improved" texts are available to children in the classroom library or elsewhere in the room so that they can admire, and use, their handiwork at a later date.

Integration of Knowledge and Ideas

To better understand the K–2 standards for integration of knowledge and ideas, it is especially helpful to look to the original anchor standards:

7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

In the K–2 standards, the diverse media and formats referenced in Anchor Standard 7 are simply illustrations and the larger text (including written words) in which they appear. The K–2 standards for Anchor Standard 8 focus children on the points or argument the author is making and the reasons given to support them. The K–2 standards for Anchor Standard 9 consist of comparing and contrasting two and more texts. See Table 3.3 for grade-by-grade detail.

TABLE 3.3. Reading Standards for Informational Text K–2: Integration of Knowledge and Ideas (Anchor Standards 7–9)

Kindergartners	Grade 1 students	Grade 2 students
7. With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).	7. Use the illustrations and details in a text to describe its key ideas.	7. Explain how specific images (e.g., diagram showing how a machine works) contribute to and clarify a text.
8. With prompting and support, identify the reasons an author gives to support points in a text.	8. Identify the reasons an author gives to support points in a text.	8. Describe how reasons support specific points the author makes in a text.
9. With prompting and support, identify basic similarities and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).	9. Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).	9. Compare and contrast the most important points presented by two texts on the same topic.

Discussion

As with any of the K–2 standards, discussion can play a critical role in helping children attain Standards 7–9. Not surprisingly, "Guide students through focused, high-quality discussion on the meaning of text" was one of the five recommendations of the WWC panel (Shanahan et al., 2010). Specifically, the panel recommended that educators:

- Structure the discussion to complement the text, the instructional purpose, and the readers' ability and grade level.
- Develop discussion questions that require children to think deeply about text.
- Ask follow-up questions to encourage and facilitate discussion.
- Have children lead structured small-group discussions.

While the evidence for this recommendation in the K–3 grade range received only a "minimal" rating, in research with older children quality discussion has clearly been shown to be a tool that can improve comprehension of text (Murphy, Wilkinson, Sotor, Hennessey, & Alexander, 2009).

Critical to high-quality discussion are open-ended, no-single-answer questions that encourage higher-order thought processes. Here are some examples of such questions for Standard 7:

- "What can we learn from this picture that the words did not tell us?"
- "Why did the author/illustrator choose to put this picture here?"
- "How does this picture help us understand the words better?"

- "What could we do to make this picture better?" (See prior Improve-a-Text discussion.)
- "What pictures could be added to help explain the words I just read?"

With these and any big questions, it is very helpful to ask follow-up questions (from Shanahan et al., 2010, p. 27), such as:

- "What makes you say that?"
- "Can you explain what you meant when you said _____?"
- "Do you agree with what _____ said? Why or why not?"
- "How does what you said connect with what _____ already said?"

Follow-up questions can push children's thinking and improve their ability to articulate text–picture relationships, helping them to meet Standard 7 and other reading standards for informational text.

Graphic Organizers

Another instructional strategy that will be helpful in addressing the Integration of Knowledge and Ideas standards in K–2 is the use of graphic organizers. Graphic organizers, including concept maps, Venn diagrams, fishbone charts, and sequence diagrams or flowcharts, are suggested by the WWC panel (Shanahan et al., 2010) for developing comprehension of the structure of individual texts (and indeed there is research to support doing so), but they can also be used to develop the ability to comprehend across texts. For example, to address Standard 9, a Venn diagram could be used to compare and contrast two texts about dinosaurs. To begin with, it may be useful to compare two quite different texts, such as a fantasy story about dinosaurs and a dinosaur encyclopedia. Over time, more similar texts can be compared, such as two informational websites about dinosaurs. It can be an especially rich learning opportunity when the texts differ on the same questions or issue—for example, when the texts provide different explanations for why dinosaurs became extinct. Such experiences can help children begin to understand that not everything they read in informational text is necessarily true and that text must always be read with a critical eye. Establishing a purpose for comparing and contrasting the texts—for example, to provide advice for a kindergarten teacher who had asked the children which they think she should read—is likely to further encourage careful and critical reading and analysis.

In the vignette for this strand, we provide another example of the use of a graphic organizer to develop children's ability to integrate knowledge and ideas, this time in the service of Standard 8.

**INFORMATIONAL TEXT STANDARDS IN ACTION:
INTEGRATION OF KNOWLEDGE AND IDEAS**

Mr. Rajiv found the perfect book to help him begin work with his kindergartners on identifying the reasons an author gives to support points in a text. The book *Lend a Hand* (Graves, 2005) is a persuasive text aimed at kindergartners addressing the question "Why should you lend a hand?" After each reason for lending a hand is communicated in the main body of the

text and a supporting photograph, it is added to a recurring box in the upper right-hand side of each spread, which ultimately reads:

Why You Should Lend a Hand
☺ To help someone
☺ To learn new things
☺ To feel grown up

Mr. Rajiv explicitly explains that the author is giving reasons to try to support her argument—to convince us—that children should lend a hand. He explains that figuring out the reasons or points the author is making to support her argument can help us decide whether we want to agree with the argument and can help us make better arguments ourselves. Over the next few days, he elicits examples from the children's own lives and the classroom—for example, all the reasons the children gave for why they should be allowed to play on the "big kids' playground" and listing them on chart paper.

Once the children seem to have a handle on the basic idea, Mr. Rajiv turns to reading aloud texts with somewhat more complex arguments. As he reads, he and the children complete a graphic organizer, similar to that in Figure 3.2. To encourage the children to do the hard mental work of identifying an author's argument and reasons, Mr. Rajiv provides a larger purpose for the analysis: to write a letter to the book's author as a class indicating whether they agreed or disagreed with him or her. He notices that the children began importing the argument-and-reasons analysis into their own activities, chuckling when one child says, "I have three reasons for my argument that we should get extra recess . . . "

Range of Reading and Level of Text Complexity

Anchor Standard 10 deals with the types of informational texts to be used in classrooms. The goal is to engage children in reading experiences that will help them become independent and proficient in their reading of complex informational texts. As children progress from kindergarten through grade 2, the standards suggest a shift from working with texts in group activities to reading complex texts independently. See Table 3.4 for grade-by-grade detail.

Classroom texts vary in a range of ways, including content, format, genre, and readability. This variation contributes to a text's complexity and to its appropriateness for given children and situations. The CCSS offer a three-part framework for determining text complexity: (1) qualitative evaluation of the text; (2) quantitative evaluation of the text; and (3) matching reader to text and task. The first factor deals with text characteristics, including level of meaning, supportiveness of graphic elements, and print format. The second factor deals with quantitative measures of readability, typically calculated with formulas such as the Lexile Framework for Reading and the Dale–Chall Readability Formula. In addition to these traditional readability measures, Coh-Metrix is a newer formula that measures text cohesion by accounting for additional text- and sentence-level variables (Graesser, McNamara, & Kulikowich, 2011). The third factor deals with reader characteristics (e.g., motivation and background knowledge) and task characteristics (e.g., purpose for engaging with the text). Taken together, the three parts of the framework are intended to help teachers think about multiple factors that can affect a particular reader's proficiency with a particular text.
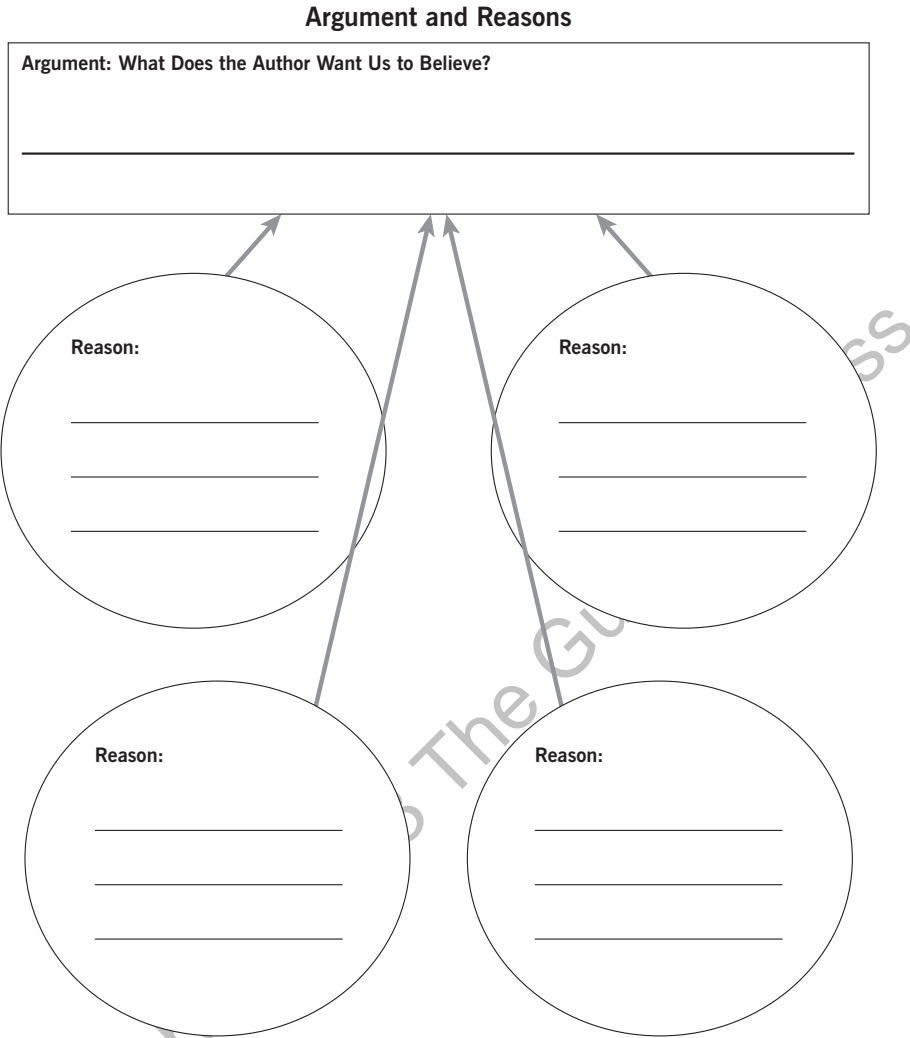
Argument and Reasons

Argument: What Does the Author Want Us to Believe?

_____

Reason:

_____

_____

_____

Reason:

_____

_____

_____

Reason:

_____

_____

_____

Reason:

_____

_____

_____

FIGURE 3.2. A graphic organizer for a basic analysis of argument and reasons.

TABLE 3.4. Reading Standards for Informational Text K–2: Range of Reading and Level of Text Complexity (Anchor Standard 10)

Kindergartners	Grade 1 students	Grade 2 students
10. Actively engage in group-reading activities with purpose and understanding.	10. With prompting and support, read informational texts appropriately complex for grade 1.	10. By the end of year, read and comprehend informational texts, including history/ social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

The standards also demand a focus on both *what* and *how* children read. They require children to read progressively more complex texts, and they outline some of the requisite component skills and strategies for reading and comprehending complex texts. Regarding informational texts in particular, comprehension of complex texts demands (among other things) knowledge of genre-specific text features (e.g., diagrams, headings, tables) and integration of text content with prior knowledge. The role of the teacher is to provide children with a range of appropriately complex texts, help children set purposes for reading, and supply scaffolded instruction as needed.

In kindergarten classrooms, Anchor Standard 10 calls for children to be given opportunities to engage purposefully with informational texts. This same approach can be applied in prekindergarten classrooms. For example, a preschool teacher might help her children prepare for a trip to the local fire station by reading aloud to the class the informational text *Fire Fighter!* (Royston, 2011). The teacher is scaffolding her children to meet this standard when she sets a purpose for reading and helps children activate background knowledge in a way that facilitates comprehension of the text. As with the examples earlier in this chapter, students are motivated to participate in an engaging reading task that serves a clear, authentic purpose.

In first-grade classrooms, children are given opportunities to engage more independently with informational texts, while teachers play an important role in selecting texts and providing instructional supports. For example, as part of their study of habitats, a teacher might use the text *Life in the Ocean* (Huxley, 2005) with a guided reading group to teach children how to use an index to find information about ocean animals.

By second grade, children are expected to read and comprehend a range of complex informational texts more independently, using their reading skills to access information and build knowledge across subject areas. For example, children might conduct a local history project by working with a variety of informational texts (e.g., newspaper articles, biographies, trade books, time lines), with the teacher providing support as needed. The following vignette illustrates the way this type of instruction might be implemented in a prekindergarten classroom.

**INFORMATIONAL TEXT STANDARDS IN ACTION:
RANGE OF READING AND LEVEL OF TEXT COMPLEXITY**

Ms. Washington gathers her prekindergarten students in a circle on the carpet to continue their work on a month-long study of Arctic and Antarctic animals. She begins by showing them the book she had read aloud the day before: *North Pole, South Pole* (Levinson, 2002). She asks for volunteers to share something they remembered from the book, and the children eagerly raise their hands to contribute. As the children offer their ideas, Ms. Washington turns to the relevant pages in the book so that the children can see the pictures and reread the text as needed. She prompts the children to check their prior knowledge by asking, "Was there anything in the book that you already knew?" She encourages them to extend their learning by asking, "Was there anything in the book that surprised you?" and "Are there any things that this book makes you wonder about?" She then reads a new book—*A Penguin's Life* (Dickmann, 2011)—and encourages students to look for connections to the previous book. The children enjoy learning new information from the second text, and the variety of informational text features (e.g., diagram, picture glossary, index) offers additional learning opportunities.

Over the next few days, Ms. Washington and the children continue to build their knowledge of Arctic and Antarctic animals through similar read-alouds and discussions. During center time, the children explore books on their own, listen to books on tape, play with plastic animal toys, and create classroom murals. At the writing center, they use a set of labeled pictures to help them label their artwork. After consulting a world map, the class decides to hang the Arctic mural on the north wall of the classroom and the Antarctic mural on the south wall. Each student picks a favorite animal and works with Ms. Washington to make a page for a classroom book. She provides support as needed, depending on the individual child's level of writing skill.

Throughout their study of the topic, Ms. Washington works to expose the children to a variety of rich and engaging informational texts, including books, maps, audio recordings, and digital texts. She helps students integrate information from pictures and from the text, and she engages students in thinking across texts.

USING THE STANDARDS THROUGHOUT THE SCHOOL DAY

There are many opportunities for embedding the standards for reading informational text throughout the school day. For example, a typical daily schedule in a primary-grade classroom includes time for independent reading, whole-class instruction, small-group guided reading, read-alouds, and content-area learning. All of these instructional components of the school day offer opportunities for children to engage with informational texts of increasing complexity over time, whether as a whole class, in small groups, or individually.

During independent reading, teachers set the stage for quality time with informational texts by making sure that the classroom environment contains a variety of informational texts that are engaging and accessible. Arranging texts thematically helps children make connections across texts. For example, a first-grade teacher could supplement a science unit on the solar system by adding a display of texts about space exploration to the classroom library. The teacher could also give children access to digital texts by bookmarking related websites on the classroom computers or linking classroom iPads to a visual tour of the solar system.

Whole-class lessons are a great part of the day for using informational texts to teach all students about text structure and features while building content knowledge. Teachers can lead students in shared reading of rich informational texts, whether by reading from a big book on an easel or using a document camera and projector to make a standard-size book visible to all. For example, a second-grade teacher could use excerpts from the book *Earth's Resources* (Barraclough, 2008) to teach a lesson that builds content vocabulary and instructs students about the use of boldface type in informational texts.

During small-group, guided-reading instruction, teachers can provided targeted instruction and support as children work in small groups to read informational texts. For instance, a guided-reading lesson could focus on using headings and subheadings to identify key ideas and details in a text. Teachers can use this instructional time to observe individual children closely, monitor their progress toward standards, and offer instructional support as needed.

Whole-class read-alouds offer another opportunity for teachers to engage their children with informational texts in very intentional ways. For example, a kindergarten teacher could choose to read *Let's Eat!: What Children Eat Around the World* (Hollyer, 2004) during daily read-aloud time as part of a larger study of cultures around the world. During the read-aloud, the teacher can focus on building content knowledge and learning how to use a glossary to support vocabulary learning.

While there is often separate time allocated to content-area learning, this component of the school day offers rich opportunities for engagement with informational text and integration of content areas and literacy skills. For example, a first-grade teacher could use the informational text *Monarch Butterfly* (Gibbons, 1991) as a supplement to hands-on science lessons about butterflies and life cycles.

Through all of these components of the school day, teachers can use informational texts to build content knowledge, support reading and writing skill development, encourage interdisciplinary connections, and engage children with text. To help children meet the standards related to informational text, teachers must be intentional about selecting texts and providing scaffolding that will help all children move toward independent comprehension of complex informational texts.

EXAMPLE INFORMATIONAL TEXTS
FOR PreK–GRADE 2 (USING CCSS TERMINOLOGY)

PreK

Book about science: *Wonderful Worms* by L. Glaser (Scholastic, 1992).

This book provides opportunities to teach vocabulary, the notion of cross-section, and sequential text structure. It ends with the answers to many questions young children commonly ask about worms and thus is a great book for teaching children to ask questions as they read.

Technical text (specifically, procedural): *Pretend Soup and Other Real Recipes: A Cookbook for Preschoolers and Up* by M. Katzen & A. L. Henderson (Tricycle Press, 2004).

This text is great for exposing young children to directions or how-to text. Children can learn to read the simple recipes with informative graphics.

Digital source: *http://pbskids.org/sid/videoplayer.html*.

Sid the Science Kid provides explanations and demonstrations of many science concepts appropriate for preschool-age children. The site offers a lot of exposure to oral and, with the captioning feature enabled, written informational text.

Kindergarten

Book about social studies: *Two Eyes, a Nose, and a Mouth* by R. G. Intrater (Scholastic, 2000).

This unique book offers an important message about diversity. It presents opportunities to talk about ways photographs can help convey information and messages to the reader.

(cont.)

Technical text (specifically, procedural): *What Is It?* by L. Kimmelman (Pearson Education, 2005).

This simple procedural text guides children in creating a guessing game in which players try to identify an object by its feel. It would work well in a unit on senses and for teaching common characteristics of procedural text.

Digital source: *http://pbskids.org/dinosaurtrain/games/fieldguide.html.*

This site provides a great introduction to field guides; each entry offers key information about a dinosaur (e.g., a quadruped or biped; the time period in which it lived). There are a lot of opportunities to teach about icons as well.

First Grade

Book about social studies and science: *Good Enough to Eat: A Kid's Guide to Food and Nutrition* by L. Rockwell (HarperCollins, 1999).

Packed with fascinating facts and big ideas, this book makes the topic of nutrition interesting and accessible for children. There are many informational text features, including diagrams, labels, and speech bubbles.

Technical text (specifically, procedural): *Hairy Harry* by B. Perez (National Geographic Society, 2001).

This book provides directions for making a "chia pet"–like craft. There are opportunities to teach many common features of procedural text, and the end product makes a great Father's Day or Mother's Day gift.

Digital source: *http://kids.nationalgeographic.com/kids/animals*.

The sloth video is fabulous, as is so much on this site. Children's interest will keep them coming back, resulting in wide exposure to informational language and images.

Second Grade

Book about science (read-aloud): *You're Tall in the Morning but Shorter at Night and Other Amazing Facts about the Human Body* by M. Berger (Scholastic, 2003).

One of our favorite books about the human body, this text conveys important and interesting information and provides opportunities to teach about many common informational text features.

Technical text (specifically, procedural): *Let's Play: Games Around the World* by T. B. Morton (Pearson Education, 2005).

This book includes several procedural texts children can follow in order to play a series of simple yet engaging games. Conventional features of procedural text, such as materials and procedures, are included.

Digital source: *http://photojournal.jpl.nasa.gov*.

Children can click on a diagram to unlock thousands of images from space. Information about the images is provided in table form, making this a great tool for teaching about tables.

CONCLUSION

If supported in appropriate ways, learning to read and interact with informational text can be at once challenging and pleasurable for young children. Motivation is a key component to success with challenging material, and we believe that, among other things, providing students with texts that meet their interests and skill levels, presenting authentic purposes for engagement, allowing for choice, and carefully planning activities in which children can exert as much autonomy as possible are important steps toward building and maintaining that motivation. Carefully designed instruction—particularly teaching comprehension strategies, drawing attention to craft and structure, and engaging children in discussion—is also critical, as is incorporating a broad range of text throughout the classroom environment and throughout the school day. The CCSS advocate for literacy skills to cross the borders of English classrooms and language arts instructional blocks into other content areas, and informational text is the perfect medium with which to build those bridges.

ACTIVITIES AND QUESTIONS

Activities

The following are additional activities designed to support children's development toward meeting the CCSS for informational text.

1. *Key Ideas and Details*. During a read-aloud or structured lesson with an informational text, point out the headings and subheadings in the text. On chart paper, work with children to use the headings and create a concept map that indicates key ideas and supporting details. For more independent readings, provide the beginnings of a concept map they can add to on their own. As children become more sophisticated in their use of informational texts, attention can shift from identifying key ideas and details for their maps to focusing on the nature of the connections among ideas and concepts.

2. *Craft and Structure*. During a read-aloud or structured lesson with an informational text, point out text features common to informational texts. Focus on how readers can use the features to learn from informational texts. Children can apply their knowledge by identifying text features in texts they read independently or during guided reading. Children can extend their knowledge of text features through the Improve-a-Text method, described earlier, of creating text features and adding them to existing informational texts. For example, if a child finds an informational text that doesn't contain captions, he or she can write captions and add them to the text with sticky notes.

3. *Integration of Knowledge and Ideas*. Teachers can help children develop their knowledge of informational texts by writing their own informational texts using text structures they are investigating during reading. For example, if a class is studying the compare–contrast text structure, children might create their own texts with a compare–contrast structure. Again, these texts should mirror real-world texts and have purpose beyond just learning to read and

write. Similarly, teachers can help develop children's understanding of how graphics in text can support comprehension and learning by engaging children in creating visuals for texts they are reading. Similarly, they can present children with a visual display (e.g., an illustration or a diagram) and ask them to write text that complements the graphic.

4. *Range of Reading and Level of Text Complexity.* It's important to take an inventory of the classroom library to ensure that children have access to many informational texts, of different types, on different topics, and with a variety of text structures and features. Nonbook texts, such as magazines, newspapers, brochures, maps, posters, charts, and digital media, should definitely be included. Teachers can scaffold children's reading of complex texts by frontloading their vocabulary and content knowledge on a topic. For example, a teacher can choose to use some hands-on activities to give children information about a science topic like erosion before extending their knowledge through the reading of several complex texts on the topic. Teachers can also provide instruction in key vocabulary words while reading a challenging text.

Questions

1. What are some opportunities for integrating instruction in reading skills and strategies into content-area learning? For example, how might a teacher use informational texts to teach comprehension strategies in the context of science and social studies instruction?

2. What are some scaffolds or supports than can help all children gain access to interesting and essential content through reading complex informational texts?

3. What kinds of challenges and opportunities do informational texts present compared with literary texts? How might teachers help children understand the similarities and differences in reading texts of different genres?

4. How can teachers determine whether an informational text is appropriate for a specific child and/or a specific task? What role should quantitative and qualitative measures play in making these determinations? What other factors are important to consider?

REFERENCES

Beck, I. L., McKeown, M. G., Sandora, C., Kucan, L., & Worthy, J. (1996). Questioning the author: A yearlong classroom implementation to engage students with text. *Elementary School Journal*, *96*(4), 385–414.

Brophy, J. (1987). Synthesis of research on strategies for motivating students to learn. *Educational Leadership, 45*, 40–48.

Chall, J. S. (1983). *Stages of reading development.* New York: McGraw-Hill.

Chall, J. S. (1996). *Stages of reading development* (2nd ed.). Fort Worth, TX: Harcourt Brace.

Dodge, A. M., Husain, N., & Duke, N. K. (2011). Connected kids?: K–2 children's use and understanding of the Internet. *Language Arts*, *89*, 86–98.

Duke, N. K. (2000). 3.6 minutes per day: The scarcity of informational texts in first grade. *Reading Research Quarterly*, *35*, 202–224.

Duke, N. K., Bennett-Armistead, V. S., & Roberts, E. M. (2003). Filling the great void: Why we should bring nonfiction into the early-grade classroom. *American Educator, 27*(1), 30–35.

Duke, N. K., Caughlan, S., Juzwik, M. M., & Martin, N. M. (2012). *Reading and writing genre with purpose in K–8 classrooms*. Portsmouth, NH: Heinemann.

Duke, N. K., & Kays, J. (1998). "Can I say 'Once upon a time'?": Kindergarten children developing knowledge of information book language. *Early Childhood Research Quarterly*, *13*, 295–318.

Duke, N. K., Martineau, J. A., Frank, K. A., Stebbe, S. M., & Bennett-Armistead, V. S. (2012). *The impact of including more informational text in first-grade classrooms*. Unpublished manuscript, Michigan State University.

Duke, N. K., & Pearson, P. D. (2002). Effective practices for developing reading comprehension. In A. E. Farstrup & S. J. Samuels (Eds.), *What research has to say about reading instruction* (3rd ed., pp. 205–242). Newark, DE: International Reading Association.

Duke, N. K., Purcell-Gates, V., Hall, L. A., & Tower, C. (2006/2007). Authentic literacy activities for developing comprehension and writing. *The Reading Teacher*, *60*, 344–355.

Duke, N. K., & Roberts, K. M. (2010). The genre-specific nature of reading comprehension. In D. Wyse, R. Andrews, & J. Hoffman (Eds.), *The Routledge international handbook of English, language and literacy teaching* (pp. 74–86). London: Routledge.

Fingeret, L. (2008). "March of the Penguins": Building knowledge in a kindergarten classroom. *The Reading Teacher*, *62*, 96–103.

Graesser, A. C., McNamara, D. S., & Kulikowich, J. M. (2011). Coh-Metrix: Providing multilevel analyses of text characteristics. *Educational Researcher, 40*, 223–234.

Guthrie, J. T., & McCann, A. D. (1996). Idea circles: Peer collaborations for conceptual learning. In L. Gambrell & J. Almasi (Eds.), *Lively discussions!* (pp. 87–105). Newark, DE: International Reading Association.

Guthrie, J. T., McRae, A., & Klauda, S. L. (2007). Contributions of concept-oriented reading instruction to knowledge about interventions for motivations in reading. *Educational Psychologist*, *42*, 237–250.

Guthrie, J. T., Wigfield, A., Barbosa, P., Perencevich, K. C., Taboada, A., Davis, M., et al. (2004). Increasing reading comprehension and engagement through concept-oriented reading instruction. *Journal of Educational Psychology*, *96*, 403–423.

Hiebert, E. H. (2008). The word zone fluency curriculum: An alternative approach. In M. R. Kuhn & P. J. Schwanenflugel (Eds.), *Fluency in the classroom* (pp. 154–170). New York: Guilford Press.

Jeong, J. S., Gaffney, J. S., & Choi, J. O. (2010). Availability and use of informational text in second, third, and fourth grades. *Research in the Teaching of English*, *44*, 435–456.

Jiménez, L. M., & Duke, N. K. (2011). *The effect of high and low interest on multiple text reading comprehension in elementary-age readers*. Unpublished manuscript.

Murphy, P. K., Wilkinson, I. A. G., Sotor, A. O., Hennessey, M. N., & Alexander, J. F. (2009). Examining the effects of classroom discussion on students' comprehension of text: A meta-analysis. *Journal of Educational Psychology*, *101*, 740–764.

National Governors Association Center for Best Practices and Council of Chief State School Officers. (2011). *Common core state standards for English language arts and literacy to history/social studies, science, and technical subjects*. Washington, DC: Author.

Pappas, C. (1993). Is narrative "primary"?: Some insights from kindergarteners' pretend readings of stories and information books. *Journal of Reading Behavior*, *25*, 97–129.

Pressley, M., Dolezal, S. E., Raphael, L. M., Mohan, L., Roehrig, A. D., & Bogner, K. (2003). *Motivating primary-grade students*. New York: Guilford Press.

Purcell-Gates, V., Duke, N. K., & Martineau, J. A. (2007). Learning to read and write genre-specific text: Roles of authentic experience and explicit teaching. *Reading Research Quarterly*, *42*, 8–45.

Renninger, K. A., & Wozniak, R. H. (1985). Effect of interest on attentional shift, recognition, and recall in young children. *Developmental Psychology*, *21*, 624–632.

Santoro, L., Chard, D. J., Howard, L., & Baker, S. K. (2008). Making the very most of classroom read-alouds to promote comprehension and vocabulary. *The Reading Teacher*, *61*, 396–408.

Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P. D., Schatschneider, C., et al. (2010). *Improving reading comprehension in kindergarten through 3rd grade: A practice guide* (NCEE 2010-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from *whatworks.ed.gov/publications/practiceguides*.

Taylor, K. K. (1986). Summary writing by young children. *Reading Research Quarterly*, *21*, 193–208.

Wright, T. S. (2011). *What classroom observations reveal about oral vocabulary instruction in kindergarten*. Unpublished doctoral dissertation, University of Michigan, Ann Arbor.

Yussen, S. R., Rembold, K. L., & Mazor, A. (1989). Identifying main ideas in picture stories and written narratives. *Journal of Applied Developmental Psychology*, *10*, 313–335.

CHILDREN'S BOOKS CITED

Barraclough, S. (2008). *Earth's resources*. Chicago: Heinemann Library.

Canizares, S., & Chessen, B. (1998). *Rainforest colors*. New York: Scholastic.

Dickmann, N. (2011). *A penguin's life*. Chicago: Heinemann Library.

Gibbons, G. (1991). *Monarch butterfly*. New York: Holiday House.

Graves, S. (2005). *Lend a hand*. London: Dorling Kindersley.

Hollyer, B. (2004). *Let's eat!: What children eat around the world*. New York: Holt.

Huxley, G. (2005). *Life in the ocean*. Monterey, CA: National Geographic School Publishing.

Levinson, N. S. (2002). *North Pole, South Pole*. New York: Holiday House.

Royston, A. (2011). *Fire fighter!* London: Dorling Kindersley.