Developing children’s reading skills is viewed as the greatest instructional priority during the early years of elementary school. After decades of concern about low student achievement, the current near-exclusive emphasis on early literacy is based on the belief that reading skills form the foundation for success in other content areas, and therefore children with strong early literacy skills are well prepared for learning all other academic subjects. Kindergarten and first-grade teachers are held accountable for their students’ reading scores, and parents are bombarded with messages about the importance and benefits of reading with their children.

Young children’s experiences with print, both at home and at school, generally involve picture books with fictional stories.
Even before formal instruction in reading begins, shared book reading between children and parents or other family members creates a context for children to learn reading-related routines and to develop an awareness of how print is used and what it tells us. For example, with help from adults, children gradually become familiar with conventional reading behaviors, such as holding the book, opening at the first page, and turning the pages from front to back. Children also learn about the conventions of print. For instance, they come to understand that we read words in English from left to right and from top to bottom, and that spoken words are represented by sets of letters that are grouped together to form words and sentences.

Over time, as they continue reading picture books, children develop more skills that are central to comprehending written language: They recognize a book’s pictures are related to the text, and therefore knowledge gained from one can be used to understand the other. They learn that information on one page is linked to that on previous and subsequent pages, and that together the pages tell a story or build on a theme. Through features such as repetition of words or predictable patterns of events, children anticipate events or phrases that come later in the story. From these experiences, children learn they can expect to be able to make inferences about a book’s content to predict what may come next. In addition, through talking about books, children learn to summarize and synthesize information, grasp the importance of sequencing, and come to distinguish important details from those in the background (Paris & Paris, 2003). Critical thinking and communication skills that are necessary for school, work, and successful living in general are grounded in children’s early reading experiences with adults. Fortunately, reading picture books is not just tremendously beneficial—apparently without exception, children find picture books enjoyable, engaging, and entertaining. It is not surprising, then, that picture books play an essential part in early literacy instruction.

Picture books come in a variety of genres, or styles, including narrative (story based) and expository (or strictly informational). Narrative and informational books have different
structures and features, but both types of texts are important to literacy instruction. As we discuss in this book, familiarity with both genres contributes to children developing different types of skills and ways of understanding and learning about the world. We explain what we mean by this by discussing fictional narratives, and then informational books, in the next sections.

**FICTIONAL NARRATIVE PICTURE BOOKS**

Fictional narrative books are written to primarily entertain by telling a story. They are constructed around a set of characters (people, animals, or even machines, toys, or other objects) who enact a sequential and more-or-less predictable plot. The content may be either realistic or wholly fanciful; it may also include factual information within the fictional plot. The characters (even the nonhuman ones are portrayed with human qualities) establish relationships among themselves. They have feelings, intentions, and goals or desires. They experience particular outcomes as a result of their actions, often learning a lesson along the way. For example, a train may get tired of staying on the railroad tracks and decide to leave them to play in the fields, only to learn that it is a mistake to “go off the rails,” as in the Golden Book *Tootle* (Crampton, 1945). Or a train may be content with her lot in life only to face a crisis of confidence, as occurs in *The Little Engine That Could* (Piper, 1976):

The little train rumbled over the tracks. She was a happy little train for she had just a jolly load to carry. Her cars were filled with good things for boys and girls. . . . The little train was carrying all these wonderful things to the little boys and girls on the other side of the mountain. She puffed along merrily. Then all of a sudden she stopped with a jerk. She simply could not go another inch. She tried and tried but her wheels would not turn.

In addition to the sequential story, other typical features of narrative texts for young children include the use of past tense or “real time” verbs; everyday, nontechnical vocabulary.
Conventional phrases such as the opening “once upon a time . . .” and the ending “. . . they lived happily ever after” are commonly used. Pictures reinforce the ideas presented in the text or help the reader fill in details beyond the actual words (Donovan & Smolkin, 2002).

Let’s consider more specifically how several of these features are present in the story structure, language, and the illustrations of The Little Engine That Could. The story unfolds in a sequence of events: The initiating event—the Little Engine breaking down—is followed first by her despair and then by her attempts to solve the problem (e.g., looking for help from other engines). These efforts lead eventually to a successful outcome and a newfound sense of confidence as the Little Engine manages to deliver her load as expected. The story’s moral (“I think I can, I think I can”) is one of building confidence—believing in oneself and being successful through hard work, perseverance, and effort. The moral develops as the resolution to the problem emerges and continues to be highlighted until the end of the story, when a successful solution is achieved (“I thought I could. I thought I could . . .”).

Past tense is used throughout the book, and the vocabulary is straightforward, without complex terms or events that young children might not be familiar with. Encounters with words like “rumbled,” that may not yet be part of a young child’s vocabulary (cf., Chall & Dale, 1995), are unlikely to interfere with comprehension because they occur in a simple, familiar context (in terms of both the predictability of the story structure and children’s general familiarity with the issues embedded in the plot). Children draw from this familiar framework to infer that the meaning of “rumbled” has something to do with the way the train moved “happily” along the tracks.

The illustrations in The Little Engine That Could aid children’s comprehension by focusing attention on important aspects of the story, supporting and reinforcing the messages presented in the written text. In the excerpt reproduced here (see Figure 1.1), the Little Engine is drawn with a sad face,
which reflects the disappointment she felt after her engine failed and her “wheels would not turn.” The engine’s expression also captures her concern for the recipients (the “good little boys and girls on the other side of the mountain”) of her “jolly load,” who would not receive the presents (toys, dolls, a baby elephant, and “the funniest little toy clown you ever saw”) if the engine could not get over the mountain. The little bear’s facial expression and gesturing also reflect concern about the toys’ fate, whereas the clown shows several cues (looking along the other tracks, waving a flag in anticipation) for what comes next in the story (perhaps help from a new engine that is arriving on the scene). These illustrations encourage children to feel the emotions described in the story.

Figure 1.1 Illustration From *The Little Engine That Could*

Source: Piper (1976).
and make personal connections to the characters and their circumstances.

**Informational Picture Books**

Unlike fictional books, informational texts for young children do not rely on telling a story laden with characters and emotion. Instead, the goal is to communicate information about facts (e.g., uses of microscopes), processes (e.g., how a flower grows), or a sequence of procedures and techniques for achieving an outcome (e.g., how to bake cornbread).

The following excerpt from *Simple Machines* (Fowler, 2001, pp. 3–7), a trade book intended for children in Grades K–2, illustrates several of the common features of information books:

We use machines (muh-SHEENS) every day. Machines help make our lives easier. Some machines, such as lawn mowers and vacuum (VAK-yoom) cleaners have many parts. Other machines have few parts. They are called simple machines. Levers, inclined planes, wheels and axles (AK-suls), and pulleys are four kinds of simple machines.

As we see here, informational books communicate accurate knowledge to the reader through structures that describe, compare and contrast, and classify. They may also explain cause-and-effect relations and if-then sequences (Duke & Kays, 1998). Unlike with a story, where the sequence of events in time is crucial for it to make sense, the content in informational texts does not necessarily have to be presented in a particular order. For instance, the simple machines book could equally well proceed to discuss levers or inclined planes next. There are, of course, some instances when the sequence in time is important even in informational text, such as passages recounting historical events, life cycles, or procedures.

Rather than relying on characters, informational books refer to a topic or theme throughout as a way of connecting
one part of the text with the next, therefore providing cohesion and continuity for the reader. In this excerpt, the topic, *machines*, is used several times to help the reader maintain focus and connect with the information presented in each sentence. Present tense verbs and forms of the verbs *to have* and *to be* are standard features of informational books (Duke & Kays, 1998), as shown in the excerpt from *Simple Machines*. The language is enriched with technical terms (e.g., levers, inclined planes, axles, pulleys) and topics (e.g., ways to categorize machines) that are not likely to be part of children’s routine conversations at home or school (De Temple & Snow, 2003; Pappas, 1993, 2006; Yopp & Yopp, 2000). The vocabulary of informational texts is typically more advanced than the everyday, common-sense vocabulary encountered in fiction-oriented picture books.

Just like fictional picture books, informational texts for young children are full of illustrations (including photographs or drawings) that show content presented in the book, such as types of traditional clothing worn in different countries, astronauts working in space, or what baby animals look like compared to their mothers. The graphic content of informational books is realistic and may include photographs, drawings, maps, tables, or diagrams. These visuals help young readers to

- construct literal descriptions of the content (e.g., see what the first American flag looked like);
- make predictions about the information covered in the text (e.g., what tragedy may strike a fisherman who is out on the ocean in his canoe when a storm strikes); or
- monitor their knowledge or realize that they are adding new information to what they already know about a topic (e.g., realize that not all birds use their wings to fly; Norman, 2010).

Several characteristics of informational texts for young children can be seen in Figure 1.2, which is an excerpt about the Hubble Space Telescope. Alongside the text is a National Aeronautic and Space Administration (NASA) photograph of
The Hubble telescope is in space, away from the Earth’s atmosphere.

The Hubble telescope is a tool that scientists use.

It helps them learn about stars and planets that are far away from the Earth.


the Hubble orbiting the Earth. This photo illustrates information in the first sentence of the text—The Hubble telescope is in space, away from the Earth’s atmosphere—and therefore helps children understand the sentence. This short text also includes many of the features that are typical of information genres. The text uses only the present tense (use, helps, learn, is, are), and every sentence includes existential verbs (is, are). The vocabulary includes several technical terms (atmosphere, telescope, planets) that are not likely to be familiar to children in the early elementary grades (Spache, 1978).

Repetition of the main topic—the Hubble telescope—within the short passage provides a coherent framework for
the reader. Also, information that the Hubble is a tool far away from the Earth is given at both the beginning and the end of the passage as a way of helping the reader understand that the telescope is distant in order to help scientists learn about far-away objects.

Unlike fiction, the text is not based on characters and their experiences. Instead, coherence, meaning-making, and engagement with it develop as the reader grasps and makes sense of the knowledge contained in the text. It is this very act of purposeful meaning-making that fulfills children’s natural curiosity about the world and makes informational texts highly interesting and motivating. Experiences with expository texts inform and cultivate readers’ interests while at the same time fueling their ongoing thirst for knowledge (Alexander, 1997).

**The Predominance of Narrative Text**

Narrative and informational texts have different structures and features, and students need to comprehend each well (National Council of Teachers of English [NCTE] and International Reading Association [IRA], 1996). By fourth grade, children are expected to be able to read and understand both genres well; this includes expecting students to learn from textbooks in subjects such as science and social studies. However, fictional and informational texts have not been given equal weight in the early years of school—a practice the Common Core State Standards (National Governors Association [NGA] & Council of Chief State School Officers [CCSSO], 2010) seek to change.

Beginning at preschool, children receive many more experiences with narrative than with informational texts (Pentimonti, Zucker, & Justice, 2011; Price, Bradley, & Smith, 2012). This trend continues in kindergarten and the early grades, where instruction is still heavily focused on narrative genres (Yopp & Yopp, 2012). It is estimated that in first grade, children spend less than 3.6 minutes per day with informational text—much too little time for them to learn from and
learn about this genre (Duke, 2000). Only a small proportion of books read aloud by PK–Grade 3 teachers are informational—8% in a recent study (Yopp & Yopp, 2012). During 1970–2000, less than one quarter of the content of elementary grade basal readers was informational (Kamil & Bernhardt, 2004). The amount of informational text contained in basal readers has increased in recent years, along with their overall use (Moss, 2008; Ness, 2011). However, the general distribution of informational texts relative to narrative texts in basal readers does not yet meet the 2009 National Assessment of Educational Progress recommendations (Moss, 2008), which are endorsed by the Common Core State Standards (NGA & CCSSO, 2010).

**Rationales for the Predominance of Fiction**

One argument for the predominance of fiction asserts that children are predisposed to learning from stories, because the capacity for storylike thinking and information processing is an essential part of being human (McClure & Zitlow, 1991; Wells, 1985). Therefore, the argument goes, instruction is likely to be most successful when content is taught within stories.

A related argument claims that some subjects (e.g., math, science) and discipline-specific ways of learning about the world (e.g., scientific inquiry) are, by their nature, not story-shaped and so young children find them difficult and uninteresting. Therefore, using books without stories, such as informational texts, to teach these subjects contributes to children losing attention and becoming bored. Consequently, the argument goes, instruction in the early years of school should be organized within stories, so as to encourage student interest and promote meaningful learning, even in subjects such as math and science. Teachers, it is claimed, should be storytellers, who view and organize instruction around telling good stories, rather than achieving a list of objectives (Egan, 1988).

Consistent with these positions, narrative picture books like Eric Carle’s (1987) *The Very Hungry Caterpillar* are frequently
used to teach young children about science topics such as the life cycle of butterflies. The book provides information about how an egg changes to a caterpillar, which ultimately becomes a butterfly, but it also contains a number of fanciful inaccuracies, such as that caterpillars eat lollipops, pickles, and cherry pie. Therefore, despite the book’s immense entertainment value, it can cause young children to develop significant misconceptions, or inaccurate beliefs, about the diet and feeding habits of caterpillars. When we have observed teachers reading this book, we have seen that usually the main or only objective is for children to enjoy the story. Little attention is paid to whether the children learn any of the accurate science content woven skillfully throughout the story, or if they understand that the fanciful parts are not true to life.

Even when narrative texts include generous descriptions of accurate, subject-specific information (as in the case for the science content embedded in The Magic School Bus series), they continue to strengthen the readers’ skills in reading narratives while providing few insights into how to navigate the language and structure of informational genres. We discuss the kinds of knowledge that young children construct from reading these types of “mixed” (i.e., narrative and information) texts in Chapter 4.

Does research evidence support the rationales for focusing almost exclusively on reading fictional books in the earliest grades? Some (but not all) research shows that older elementary-grade students find narrative text easier to understand than informational text; for example, a study suggests that third graders learn more science content when the information is presented as a story (Leal, 1994). However, to interpret this finding, we should consider that by third grade these children most likely have had disproportionately fewer experiences with informational texts both at home and in school (because children are typically expected to read such texts only from fourth grade on). Therefore, it is likely that children’s comprehension skills for informational texts had not been sufficiently developed by third grade, which would explain the research favoring fiction. Instead of justifying the focus on fiction in the
early grades, this research may be revealing a consequence of the practice of relying on narrative!

Other research has run counter to the notion that storied formats facilitate the comprehension of information. For instance, Maria and Junge (1994) noted that the fantasy elements of mixed texts may interfere with the learning of informational ideas because children, who have had more experiences and familiarity with fiction, focus on the details of the story and ignore the informational content. More recent evidence supports this point and highlights a number of concerns associated with “storybook” science texts. Groups of fourth graders who read about the same science content in either fictional narrative or informational texts differed with respect to the number and accuracy of science concepts they remembered. Even though children could retell more when the science content was embedded in fictional narrative, they had better and more accurate retellings of the main science concepts when they were learned from informational texts. Also, it is particularly disconcerting that the children who read the fictional narrative had twice as many misconceptions about the science concepts presented in the book compared with children who read the expository text (Cervetti, Bravo, Hiebert, & Pierson, 2009).

Research with children in the early years of school is currently on the rise. It is noteworthy that studies conducted in a variety of contexts (e.g., developmental labs as well as school and family settings) report that preschool and kindergarten children derive many benefits from shared (adult-child) readings of informational books. That is, preschoolers not only learn factual content from picture books, but also are able to apply that knowledge to interpret real-world situations (Ganea, Ma, & DeLoache, 2011). Of interest, iconicity, or the level of realistic representation in pictures, influences the extent to which children transfer the information to new situations. The more realistic the book’s picture, the greater the transfer (e.g., Ganea, Pickard & DeLoache, 2008)—a finding that supports the value of informational texts for children’s learning about the world. This finding may also explain
another finding: that children are better able to transfer solutions to problems when they have learned about them in stories with real people rather than in stories with fantasy characters (Richert & Smith, 2011). Though this research does not address the many benefits that children derive from experiences with diverse texts (fictional, informational, and mixed types), it does call attention to the need to broaden the scope of books children read and to consider the multiple benefits of diverse genres for children’s learning and motivation.

Fictional narrative does play a critical role in children’s early learning. However, its heavy predominance in the early elementary grades builds and reinforces a narrow set of skills that are insufficient for the comprehension of the non-narrative, informational texts that children will encounter in later grades when they begin instruction in other disciplines. Although children who are familiar with fictional stories are also much better at understanding novel fictional texts, the skills they use are not necessarily helpful when they are faced with expository texts (Hall, Sabey, & McLellan, 2005). There is virtually no evidence to support the notion that young children are predisposed to learn from narrative and are therefore more interested in it. Moreover, there are compelling arguments that information-oriented texts are motivating and support children’s intrinsic needs for learning about and understanding the world (Alexander, 1997). In conclusion, findings from recent research summarized briefly here raise concerns about the early and nearly exclusive reliance on fiction and its role in children’s motivation and learning.

UNINTENDED CONSEQUENCES OF FICTION-ONLY CURRICULA

Learning from text is shaped not only by the quality of ideas and illustrations but also by the text’s features and structure (Teale, 2003). Children’s awareness of different types of text and their underlying structures (e.g., fictional, informational, or mixed genres) plays a major role in the breadth and depth
of knowledge that they construct during reading. It follows that the disproportionate attention to narrative texts strengthens skills that are essential for that genre but neglects the development of other skills necessary to read informational text. Thin opportunities to learn from informational texts in the early grades constrain children’s ability to process and enjoy this type of text because they lack experiences with the frameworks typical for this genre. Therefore, even though both narrative and informational texts may contain unfamiliar information, they are not equally difficult for children who have read only narrative genres and are familiar with this class of texts. Waiting until third or fourth grade to introduce informational text typically leads to children having well-developed knowledge structures, skills, and social knowledge that enable them to comprehend events described in narrative while being ill prepared for learning from informational text.

The ability to read and understand informational texts in content areas such as science and social studies requires more than general competencies for processing expository text. There is no evidence in support of the assumption that generic or all-purpose literacy skills are easily transferrable from storied to informational texts and then successfully used to make meaning from reading in content areas unfamiliar to readers—young children and adults alike. In addition to needing sufficiently developed frameworks for this type of text, children need prior discipline-specific background and vocabulary knowledge to move beyond the literal, surface features of the reading and make meaningful linkages with the new ideas in informational texts (Best, Floyd, & McNamara, 2008; Hiebert & Cervetti, 2011; Hirsch, 2006). Readers who integrate their prior relevant knowledge with the new information learned during reading are better able to recall the information, use it to learn new material, and apply it to solve problems (Wolfe & Woodwyk, 2010).

Integrating literacy activities in content area instruction (e.g., science) should involve more than reading books such as
The Very Hungry Caterpillar (even though it and others like it are wonderful books—for a different purpose) to teach about the butterfly life cycle. Rather, instruction should afford opportunities for learning from high-quality, informationally accurate texts and using discipline-appropriate reading strategies and writing resources to represent learning. For instance, in a journal or notebook, children can use a variety of strategies (writing, drawing, pasting photographs) to represent both their prior and new knowledge. They can document their questions, record the new concepts that they have learned, show how they can apply them, and summarize conclusions. The inclusion of writing activities in the context of learning from informational texts during content-area instruction provides an authentic setting for the development of literacy skills while highlighting the value of writing as an important form of communication (Patrick, Mantzicopoulos, & Samarapungavan, 2009b). We elaborate on this point in Chapter 6.

The Costs of Relying on Fiction

All in all, the reliance on fictional narrative books to teach topics in other content areas comes with a number of costs.

1. The emphasis on skills and strategies that are specific to one class of texts (e.g., fiction) disregards the genres, conventions, and ultimately the integrity of individual disciplines (e.g., literature, science) and does not help children construct accurate conceptions of them.

2. Misconceptions, or inaccuracies, are likely to develop or become reinforced (if children already hold them) when factual content is intertwined with fiction because young children may not be able to distinguish between what is true in the book and what is not (see also Chapter 4). They may conclude, for example, that although very hungry caterpillars hatch from eggs and
transform into a chrysalis, they also feast on cherry pie and chocolate cake. In the context of the book reading, and without explicit instruction, all these activities may sound equally plausible to young children.

3. The lack of experiences with informational texts in the early grades does not build either the background knowledge or the genre-specific skills that children need for reading science and social studies texts in later grades. Reading is more than knowing what the words say and mean; it also involves understanding the words’ meanings in relation to each other and in the context of the particular discipline. For example, “a long time” in history does not mean the same as “a long time” in earth science. Because language provides the tools for thinking, deficits in discipline-specific language inevitably make it difficult for children to gain access to the knowledge that this language expresses (i.e., content knowledge) and to understand the discipline that it represents (Moje, 2008; Shanahan & Shanahan, 2008). For example, events in history are recorded and understood differently than physics-related phenomena and are therefore represented through language differently. Without a foundation of the vocabulary and linguistic conventions used in a field of study, people cannot develop adequate views of that field. This may sound like a consideration most relevant for later grade levels, but reading of good, appropriate informational texts in the early grades can lay a stronger base for interacting with these features later.

4. When children experience only fiction, it is likely to stifle their interest and motivation both for reading informational books and for engaging with the content areas. For example, many books that contain science content “jazz up” the science by adding magical or fantasy elements (e.g., the school bus children are riding on shrinks so they can travel throughout the inner systems
of a living person). Children may come to believe that these fantasy elements are what make science exciting, rather than appreciating the wonder of the real world (e.g., the amazingly elaborate structures and processes at work inside of us). After having developed an expectation, over years, that science involves fantasy, children encountering a “different kind” of science book (i.e., an expository one) may find it rather mundane. However, if children develop a realistic notion, early, of what science is and their instruction addresses their natural curiosity and fascination with the world, children will likely not be set up for later disappointment when they are expected to be learning science as a required component of the curriculum.

In conclusion, the early and targeted engagement with fiction supports and hones the development of skills that are fundamental to reading fictional genres. Conversely, insufficient experience with informational texts deprives children of opportunities to develop skills that are essential for comprehending and learning from nonfictional, expository genres. Balancing this lopsided pattern of instructional choices is crucial to avoid the potentially far-reaching, unwelcome consequences for both children’s reading competencies and their subject-specific learning.

Reading informational books and developing competence in the use of inscriptional resources (e.g., constructing graphs, using written language, pictures, or drawings to record observations and events) provide instructional entry points to incorporating important disciplines, such as science and social studies, into the curriculum. Having said this, let us be clear that engagement with informational texts alone cannot fill the void of content-area instruction in the early years of school. However, the purposeful inclusion of informational resources in the curriculum would maintain the early focus on reading and language arts and make it more balanced in terms of genres while simultaneously addressing some standards for the other
content areas. Currently this is far from the norm. We elaborate on how teachers can accomplish this, and provide examples from kindergarten science classes, in the chapters that follow.

CHAPTER 1 APPLICATIONS FOR PRACTICE

Try-It-On Activities

The following suggested activities require that you try out ideas presented in this chapter in your classroom.

1. Make a list of the high-quality informational texts that you use in your instruction. What does the list reflect in terms of the points made in Chapter 1?

2. Review narrative books that you especially promote in your classroom, and evaluate them in terms of the misconceptions (science-related as well as other disciplines) that might be communicated or reinforced.

FOR DISCUSSION AND REFLECTION

1. What instructional decisions need to be made when a narrative book (e.g., *The Very Hungry Caterpillar*) presents information? What are potential opportunities and challenges when books combine narrative with informational text? Can you provide an example of such a book from your own practice?

2. What are the “intended” consequences of a fiction-only curriculum? The authors propose a number of unintended consequences, but what is a fiction-only curriculum supposed to advocate and teach? Can these goals still be accomplished using some expository nonfiction books in addition to using fiction?
HIGHLY RECOMMENDED WEBSITES FOR LOCATING AWARD-WINNING INFORMATIONAL TEXTS

National Council of Teachers of English Orbis Pictus Award for Outstanding Nonfiction for Children: http://www.ncte.org/awards/orbispictus

International Reading Association’s Children’s and Young Adult’s Book Award http://www.reading.org/Resources/AwardsandGrants/childrens_ira.aspx