

Editor's Note

Reading Strategies for Science



When I attended school, reading was fundamental to the study of science. Much of what my generation remembers about science instruction includes memories of thick texts, with underlined words to let us know when something was important. Then, as it so often does, the pendulum swung the other way—and starting in the 1980s, reading became blasphemous in elementary science. I was guilty, riding the pendulum to the extreme. I rarely required any reading during science in those days. My intentions were good, of course. My students liked science. Why spoil it?

But even back then I had evidence that the pendulum had swung too far. Once, after a lesson about fossils, one rather unenthusiastic reader was poring over our science textbook: “Look! We just held that fossil!” Having had some experiences motivated and engaged him, he was quite excited about learning more—even from a book.

In recent years, the increased attention to standards and achievement in reading has pushed the pendulum back yet again. Teachers are looking for ways to integrate reading and science, but this time to complement both subjects. Fortunately, there are reading strategies in science that can both motivate and teach, such as those described in this issue.

• In “Primary Students and Informational Texts” (p. 22), the authors describe before-, during-, and after-reading strategies that offer students vital experience identifying vocabulary and important ideas.

“Developing Strategic Readers” (p. 30), addresses older students’ need to develop questioning skills.

- We have all read stories about wolves that talk and pigs that engineer homes. Sometimes, these stories reinforce stereotypes about animals that could interfere with developing scientifically based ideas of animals’ behavior and roles. “Analyzing Anthropomorphisms” (p. 26) tackles that issue by helping students develop a critical eye for what is fiction and what is factual in stories, and in the process, promoting students’ desires to learn more about animals.
- Professional scientists have visited my classrooms many times with varied success. “Trade Books and the Human Endeavor of Science” (p. 35) describes a more reliable alternative—introducing scientists through carefully selected trade books. Continuing this theme, “Using Biographies in Science Class” (p. 38), describes a strategy to find out what students think of scientists and then extend it. Through a carefully scaffolded set of reading activities, students learn what makes scientists tick and discover that scientists are as real and diverse as they are.

This issue highlights the connection of reading skills to science and the many processes the two subjects share, such as making predictions, inferences, collecting evidence, and more. Of course, that’s assuming that this reading takes place in a classroom in which students engage in investigations and inquiry—reading shouldn’t replace active science. When done together, they are a powerful combination!

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Correction:

The article “Inquiry on Board” by Helen Buttemer (*Science and Children*, October 2006), contained some typographical errors. In Figure 1 and on page 36, the parenthetical descriptions of manipulated and responding variables were incorrect. In Figure 1, the definition for manipulated variable should read: “Manipulated (or independent) Variable. Something that is deliberately changed in the test setup so that you can observe the effect.” Similarly, the definition for responding variable should read: “Responding (or dependent) Variable. What will be measured or observed, which may or may not change in response to the manipulated variable.” On page 36, the parenthetical description describing manipulated variable should read, “... (the manipulated variable is also known as the independent variable), and the description for the responding variable should read, “... (the responding variable is also known as the dependent variable).”

To read the corrected version of the article, visit http://science.nsta.org/enewsletter/sc0610_34.pdf.

—S&C editors