

Book Links

UNPACKING A STANDARD:
STANDOUT SCIENCE TITLES AND
THE COMMON CORE STATE STANDARDS
BY JULIE GREEN

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Exemplary science books are a wonderful way to send students into active wondering, questioning, and learning—all while addressing the Common Core State Standards' emphasis on nonfiction. With an infinite number of topics, science can satisfy the interests of every student. And, because there is always something new being discovered, the learning never has to end! These suggested literature-based activities will help implement the Common Core State Standards for reading informational texts, RI.1.7–RI.6.7.

RI.1.7. Use the illustrations and details in a text to describe its key ideas.

All the Water in the World. By George Ella Lyon. Illus. by Katherine Tillotson. 2011. 40p. Atheneum, \$15.99 (9781416971306). 551.48. PreS–K.

This beautiful book about the water cycle is written almost like concrete poetry. For example, in a spread about evaporation, the words *swirl up* are actually placed moving vertically on the page. After reading this title, students could perform a basic evaporation or condensation experiment and record what they observe in a journal. They could then try to match their observations with the phases in the water cycle described in Lyon's text, pointing to specific words and images to support the connections they find.

First Garden: The White House Garden and How It Grew. By Robbin Gourley. Illus. by the author. 2011. 48p. Clarion, \$16.99 (9780547482248). 712.09753. Gr. 1–4.

Beginning with a brief historical overview of gardens at the White House, this book incorporates the past as well as the present in its story of how Michelle Obama created the current White House Garden. It also includes information about why gardens are important, recipes from the White House kitchen, and a list of resources for further learning. Referring to the list of "Good Reasons to Garden," start a discussion with students about why Mrs. Obama decided to create a garden at the White House. Encourage students to use the discussion as a starting point for creating their own list of reasons for planting a school or home garden, and encourage them to present the reasons to their school administrators or parents.

Summer Birds: The Butterflies of Maria Merian. By Margarita Engle. Illus. by Julie Paschkis. 2010. 32p. Holt, \$16.99 (9780805089370). 595.78. K–Gr. 3.

This picture book introduces Maria Merian, who studied the changing forms of small animals, such as frogs and butterflies, during a period in the Middle Ages when it was believed that these creatures grew spontaneously from mud. As you read the book aloud with students, identify key nouns, verbs, and adjectives that enliven the writing. You could also write the words on an anchor chart. Have students refer to corresponding illustrations in the text as they explain why these words are so important to the story and how Paschkis adds to their meaning with visual clues.

RI.4.7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

Energy Island: How One Community Harnessed the Wind and Changed Their World. By Allan Drummond. Illus. by the author. 2011. 40p. Farrar/Frances Foster, \$17.99 (9780374321840). 333.9. Gr. 1–3.

This is the true story of how Denmark's Samsø Island became energy independent. Accompanying the informative narrative are sidebars that expand on topics related to energy conservation. At the end of the book, students are asked to think about ways that they, too, could save energy. Using facts from the body of the text and the sidebars as prompts, students could first record how the young people on Samsø worked to help their community save electricity, and then discuss how they might use similar approaches in their own daily lives and communities.

Olivia's Birds: Saving the Gulf. By Olivia Boulter. Illus. by the author. 2011. 32p. Sterling, \$14.95 (9781402786655). 598. Gr. 3–6.

Boulter was 11 years old when she wrote and illustrated this title to raise awareness about the Deepwater Horizon oil spill's effect on wildlife. Each page features her original drawings of bird species, accompanied by informational text. As you read through the book, encourage students to study the layout of the pages and notice details, such as the headings, the captions, the text contained in cartoonlike dialogue balloons, and the bullet points. Then, discuss how these features emphasize facts and help the reader better understand the text. Next, have students choose something around the school that they would like to study: plants in front of the school, animals on the playground, or the layout of the school building. Invite them to research their subject; write short, informational paragraphs; and draw sketches, using Boulter's title as a mentor text on which to model their own pages.

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RI.6.7. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.

The Bat Scientists. By Mary Kay Carson. Illus. by Tom Uhlman. 2010. 80p. Houghton, \$18.99 (9780547199566); e-book, \$18.99 (9780547504865). 599.4. Gr. 7–10.

Filled with information about bats, the scientists who work with them, and current approaches to bat conservation, this title in the Scientists in the Field series is filled with information, as it dispels myths about the flying mammal. Use the book's phenomenal photographs as writing prompts. Begin by selecting dramatic pictures from the book, such as a close-up photograph of a bat tangled in a net. Have students record their thoughts, feelings, and predictions about what is occurring in each particular photo. Next, read Carson's text accompanying the photos and discuss with students how adding the author's words changes their thoughts, feelings, and what they "know" about the scene in each image.

Kakapo Rescue: Saving the World's Strangest Parrot. By Sy Montgomery. Illus. by Nic Bishop. 2010. 80p. Houghton, \$18 (9780618494170); e-book, \$18 (9780547529257). 639.9. Gr. 4–7.

Another entry in the Scientists in the Field series, this winner of the Robert F. Sibert award follows scientists and volunteers who are working to save the endangered Kakapo parrots of New Zealand. Enhancing the central text, which is printed on a white background, additional facts and narratives appear in sidebars set against green backgrounds. While reading the book with students, discuss the advantages and disadvantages of this additional information: does it help give the reader a better understanding of the content? Is the story-within-a-story approach distracting? If it is, how could that be altered? What information would the reader have lost had the information not been included?

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