

Write-in Student Edition

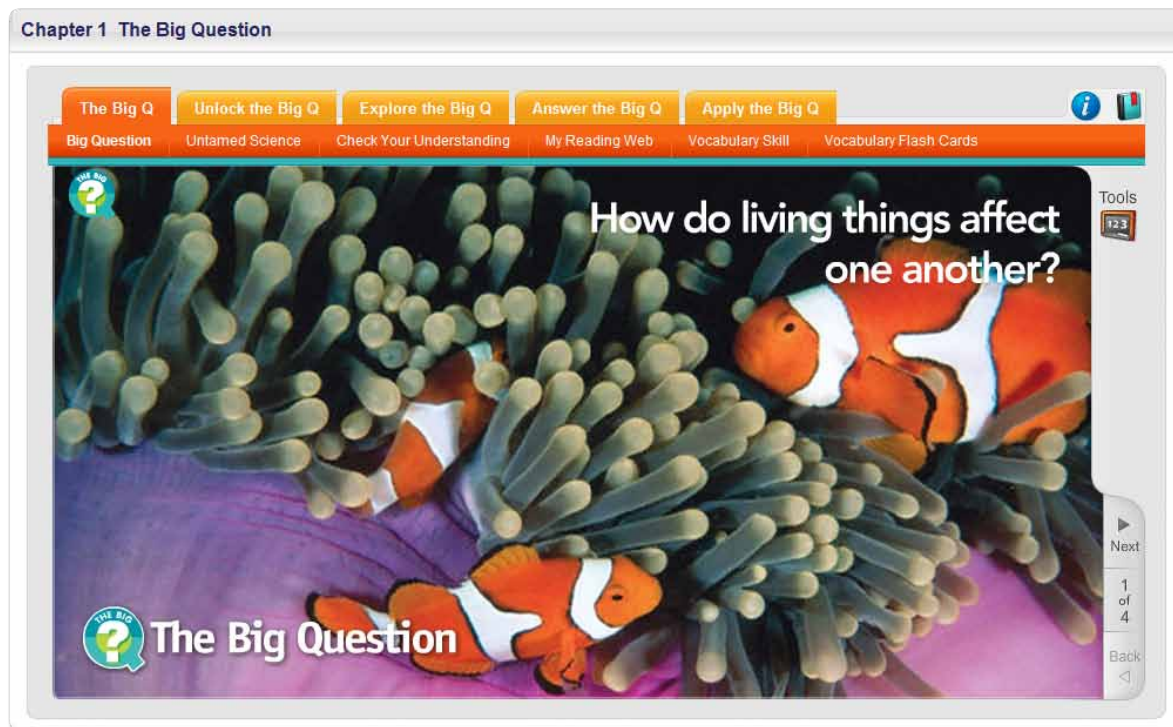


The *Interactive Science* write-in student edition provides students with a sense of ownership of their own learning. Students can record their understanding of key concepts, actively interact with the text, and communicate their need for clarification of concepts. Reading and writing strategies and practice are built in to the student editions. Metacognitive prompts are integrated into the design of the lessons—helping students to actively think about what they know and identify what they need to understand. Self-assessment is an important tool for students to use to monitor their understanding. Each key concept is followed by a Got It! self-assessment. Based on their response, students may venture online for further practice at My Science Coach. If they use My Reading Web, they can also access online Lexile leveled text passages that are written at an appropriate reading level for their ability.

Inquiry

The LabZone icon appears throughout the text and indicates a program inquiry activity. These activities are contained in the Teacher's Lab Resource. The lab activities require different levels of inquiry. In addition to Inquiry Warm-Ups and Quick Labs, lab activities feature options for conducting experiments in an open inquiry or directed inquiry. Direct inquiry supplies the students with the lab procedures. Whereas open inquiry requires students to plan, design, and implement their own procedures, record evidence, and share their findings.

Digital Path



While some science programs offer digital components that are static, such as digital e-books, *Interactive Science* comes with an interactive and engaging digital path. The digital path allows the students to view informative videos, interact with art, participate in virtual labs, and monitor their own progress. Many activities provide students with immediate feedback. Teachers can assign entire lessons, or strategically choose the components that students can experience online. Monitoring student progress is easy. Teachers can view quiz scores, evaluate open-ended questions, and assign additional practice. Using Success Tracker, the teacher may assign each student a diagnostic test. As a result of students' individual responses, the system can automatically assign students remedial learning content. Teachers may use the Success Tracker reports to show mastery of key concepts or deficiencies.

Research



During the spring of 2009, PRES Associates, Inc., a planning, research, and evaluation company, conducted a pilot study of the program. The pilot included 435 middle grade students and 7 teachers. This study used three of the *Interactive Science* modules. Researchers determined positive changes in regard to the following areas:



- Increased student interest and engagement in science
- Increased student ownership and pride
- Increased the students' application of science
- Increased student performance in other academic areas
- Improved monitoring of science learning
- Improved student organizational skills
- Increased projections of student performance on state assessments and future science courses
- Improved teacher performance and lesson preparedness

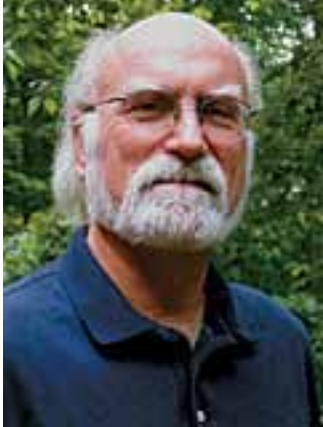

When the *Interactive Science* program was compared to the science texts that the participants are currently using, teachers said that *Interactive Science* was easier to use, that it increased the students' level of ownership, and that it provided the information and resources needed to teach science effectively.


In a comparison of pre- and posttests, the researchers identified significant growth in understanding for students who studied the Earthquake and Populations and Communities chapters. Students demonstrated growth across all demographic groups. Students who participated in the inquiry path outperformed students who experienced a blended learning approach.

Program Authors

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<p>Zipporah Miller, M.A.Ed.</p> <p>Associate Executive Director for Professional Programs and Conferences</p> <p>National Science Teachers Association</p> <p>Arlington, Virginia</p>		<p>Zipporah Miller, former K–12 science supervisor and STEM coordinator for the Prince George's County Public School District in Maryland, is NSTA's associate executive director for professional programs and conferences. She has overseen curriculum development and staff training for more than 150 district science coordinators. Miller's commitment to providing high-quality professional development and resources to science educators and administrators nationwide has made her a respected leader in the science community.</p>

<p>Michael J. Padilla, Ph.D.</p> <p>Associate Dean and Director Eugene P. Moore School of Education</p> <p>Clemson University Clemson, South Carolina</p>		<p>A former middle school teacher and a leader in middle school science education, Dr. Michael Padilla has served as president of the National Science Teachers Association and as a writer of the National Science Education Standards. He is professor of science education at Clemson University. As lead author of the <i>Science Explorer</i> series, Dr. Padilla has inspired the team in developing a program that promotes student inquiry and meets the needs of today's student.</p>
<p>Kathryn Thornton, Ph.D.</p> <p>Associate Dean of Engineering and Applied Science</p> <p>University of Virginia Charlottesville, Virginia</p>		<p>Selected by NASA in May 1984, Dr. Thornton is a veteran of four space flights. She has logged over 975 hours in space, including more than 21 hours of extravehicular activity. As an author on the Scott Foresman Science series, Dr. Thornton's enthusiasm for science has inspired teachers around the globe. Dr. Thornton is currently the Associate Dean for Graduate Programs in the University of Virginia School of Engineering and Applied Science.</p>

<p>Grant Wiggins, Ed.D.</p> <p>President of Authentic Education</p> <p>Hopewell, New Jersey</p>		<p>Award-winning coauthor (Wiggins and McTighe) on the highly successful curriculum textbook, <i>Understanding by Design</i>, published by ASCD, Grant Wiggins is one of the most influential educational reformers today. Dr. Wiggins consults with schools, districts and state education departments on a variety of reform matters; organizes conferences and workshops; and develops print materials and Web resources on curricular change. Dr. Wiggins is the President of Authentic Education in Hopewell, New Jersey.</p>
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<p>Your Students</p> <p>The Main Authors</p>		<p>These authors have been highly involved in studying science for a number of years. They have been making observations, inferences and predictions, and really figuring out how the world of science works and communicating their findings to others. Among other things, they have been called curious, innovative experts in their field, and we think they'll be very influential in your classroom.</p>
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Review

This guide discussed the program philosophy and research behind *Interactive Science*. For more information about the *Interactive Science* program, be sure to look at the *Interactive Science* Program Guide or visit the tutorials that are available on this Web site.