



SUCCESS STORY

KEY FINDINGS

- *National Geographic Science* students show a deeper understanding of inquiry and the nature of science
- Hands-on inquiry reinforces scientific content, concepts, and process skills
- Connections to National Geographic scientists motivate and engage students

National Geographic Science Students Connect with Real-World Content



Challenge

Frontier Central School District in western New York maintained an annual “Good Standing” state accountability rating for all areas, including science. The district wanted to provide a rigorous, yet relevant science curriculum to encourage continued student excellence. Frontier’s leaders sought a core science program that aligned with national standards and the state’s curricular framework.

“We wanted students to stay actively engaged in both the process and content of science,” Dr. Costello, Frontier’s Assistant Superintendent for Curriculum and Instruction, explained. “Science materials needed to be rigorous, media-rich, and engaging to build mastery of important science process and content standards.”

Solution

National Geographic Science was piloted in Grades K–2 during the 2009–2010 school year to determine its “fit” with Frontier’s science goals.

District Statistics	
District	Frontier Central School District, Hamburg, NY
Schools	4 Elementary Schools, 1 Middle School, 1 High School
Total Enrollment	5,250 students
Free/Reduced Lunch	22% students
Student Diversity	50% White, non-Hispanic; 30% Hispanic/Latino; 10% African-American; 3% Asian; 7% Other

Teachers at Pinehurst School explained the benefits of *National Geographic Science’s* instructional flow, “The Big Book proved an invaluable tool for introducing content paired with the online videos of real-life scientists. Students then explored and discovered science concepts in greater depth as they engaged in leveled hands-on inquiry investigations.

The *National Geographic Science* website provided additional resources to help students make connections and expand their science learning. Finally, the leveled books provided opportunities for students to apply the unit’s science vocabulary and content as they became an ‘expert’ and shared with classmates. Throughout, students used a science notebook to record data, make observations, formulate their own ideas, and make connections about science concepts.”

“It is wonderful to observe our youngest scholars acting like scientists.”

—Dr. Costello, Assistant Superintendent and Dr. Dudek, Coordinator

“*National Geographic Science* enabled my students to learn important content as they engaged in the scientific process,” noted another teacher. “With young children, inquiry and investigation are somewhat natural happenings,” explained a kindergarten teacher. “*National Geographic Science* helped me tap my students’ natural curiosity for the big ideas of science.”

Results

“*National Geographic Science* provides a rigorous science curriculum that supports students with a wide variety of resources which are current, appeal to children, and also align with our district’s goals,” remarked Dr. Costello and Dr. Dudek, Frontier’s Education Coordinator. “It is wonderful to observe our youngest scholars acting like scientists.” Frontier has adopted *National Geographic Science* for all K–2 classes across the district.

In spring 2010, the Young Children’s Views of Science (YCVS) assessment was used to determine Grade 2 students’ overall understanding of scientific processes (i.e., how scientists make observations, use data, conduct investigations, and use prior knowledge). After one school year, Frontier students using *National Geographic Science* demonstrated a more ‘informed’

view of scientific inquiry and the nature of science than their peers who did not use the program (Figure 1).

"National Geographic Science has so many student-oriented resources to support my instruction—and they are truly appropriate for K–2 learners," noted teachers at Pinehurst School. "Students love going to the website to view the picture of the day and the scientist videos help my students connect their learning to the real world."

"Students get personally involved in the inquiry investigations which prompt incredibly thoughtful and insightful class discussions around scientific phenomena," noted a teacher from Cloverbank School. **"National Geographic Science** encourages my students' curiosity of the world around them."

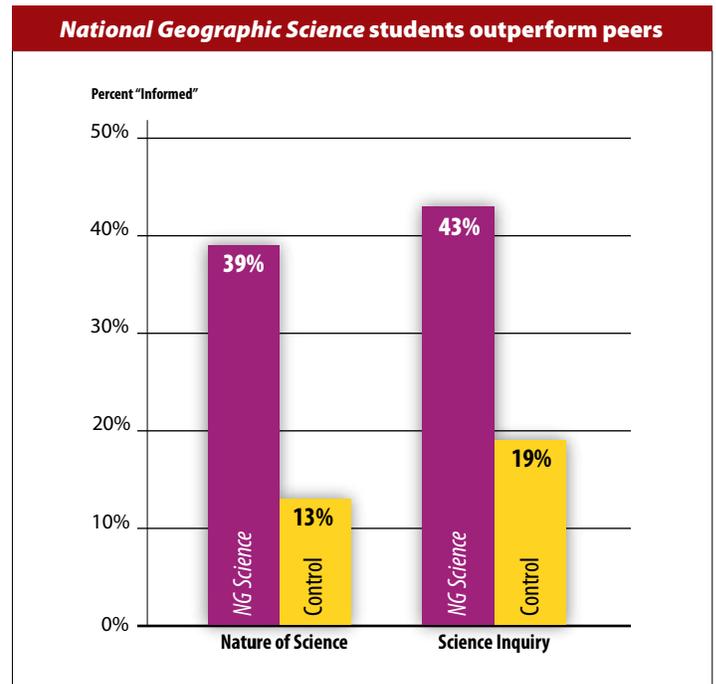


Figure 1. Percentage of Grade 2 students with "Informed" views of science on the YCVS

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