

LIGHTS, CAMERA, ACTION...

IT'S *Science Friday!*



A successful take on National Public Radio's popular show creates a school science community.

By Linda Tugurian and Margaret R. Blanchard

Students at Forest View Elementary School watched the television screens intently as fourth grader Fernando described how he found, caught, and identified his wheel bug specimen. That day, Fernando was a critical member of the morning broadcast team of elementary student anchors, weather forecasters, and camera crew. Fernando's contribution came during a special *Science Friday* segment of the school's Friday morning news. Patterned after National Public Radio's *Science Friday* (see Internet Resources), student scientists appear on the show to share their discoveries and expertise with the entire school. *Science Friday's* motto "Making Science User-Friendly" was our inspiration, as was its format, which features interviews with expert scientists.

The *Science Friday* special feature was designed to provide an opportunity for budding scientists to communicate their discoveries to the entire school community. It features student scientists who share their research, observations, class projects, experiments, and natural history collections. Peri-

odically, professional scientists share their research with the students. In addition, we often advertise community or schoolwide science events during *Science Friday*.

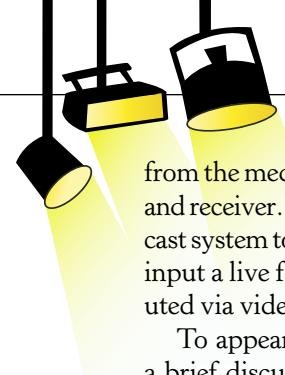
In a world inundated with media, students jump at the chance to appear on live television. The audience is large and the feedback is immediate. Students who appear on the news return to their classroom with celebrity status. Students learn that interesting discoveries can and should be shared, which leads to a better understanding of the role that scientists play in communicating findings to the public and the nature of science.

Our Model

Each day at Forest View Elementary begins with the morning news show, broadcast throughout the school over our in-house television system. The entire newscast lasts about 10 minutes and includes the day's announcements, cafeteria menu, and weather.

Our system allows videos or television shows to be aired simultaneously throughout a school





from the media center and includes a wireless microphone and receiver. However, you don't need a schoolwide broadcast system to do *Science Fridays*. If your school isn't able to input a live feed, the show can be videotaped and distributed via videotape, DVD, or podcasting (Figure 1).

To appear on *Science Friday*, students must first have a brief discussion with school technology facilitator Ms. Tugurian, affectionately called Ms. T., who will ask the students questions on the show. Because the segment is short (2–3 minutes), it is important that students know their topic, so we require research as well as observation. Students consult other scientists, books, websites, and other resources, and they are given full access to the media center and often solicit help from the staff there. This usually requires time outside of school hours, helping to develop responsibility and independence. Younger children often require parental help, but the on-air experience belongs to the student alone. When Ms. T. feels the student is ready, he or she is assigned an upcoming slot on *Science Friday*.

Safety First

Students' investigations encourage respect and care for the environment and the organisms they find. They have learned to return box turtles to the exact habitat from which they were removed, emphasizing observational skills and good citizenship. Students have taught how to care for pets. They have learned when an animal is brought inside temporarily that they must identify what it eats, obtain this food, and learn to care for it safely at home or in the classroom.

Adult supervision is required for handling of animals, and guidelines for care of animals and safety must be followed (see Internet Resources). Do not allow students

 to bring live or deceased wild animals including insects such as spiders, ticks, mites, mosquitoes, snakes, snapping turtles, and others capable of exposing students to disease. Teachers should model behaviors on how to handle animals appropriately and ensure proper safety precautions such as hand washing.

If they cannot bring the actual specimen in to school for safety of fellow students or the animal, students are encouraged to bring drawings or photographs of specimens. As a result, there has been an increase in student checkout of digital cameras to take photographs, which has added to their technical skills.

Our Resident Entomologist

Until a few months ago, Fernando was an active fourth-grade boy who liked to go to school to learn, play soccer at recess, and eat pizza with his friends in the school cafeteria. He still enjoys all of those things, but when he watched a student scientist presenting on *Science Friday*, he developed a new goal. He wanted to be on the show.

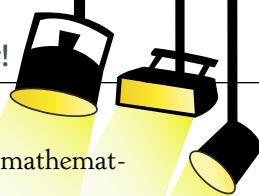
During recess, Fernando began paying more attention to the natural world. Then, one day, he raced into the media center. "I've found a spider! You have to come quick! Maybe we could talk about it on *Science Friday*!"

Fernando learned he had to do a little more work before he could appear on the show. After he caught the spider, he needed to identify it, create a temporary home for it, and find food for it. These decisions necessitated research into the jumping spider's natural history. He had to sketch it and examine its physical appearance. He needed to prepare for his interview before he received the green light for his appearance. He asked for help from his teachers and consulted books and online reference materials.

When Ms. T. felt he was ready, Fernando was given his first guest spot on *Science Friday*. But, Fernando was hungry for more. Fernando's knowledge of insects has made him a resource for his teachers and peers, led to a presentation at the school's science festival, and brought him a sense of accomplishment.

Figure 1.

Getting Started With <i>Science Friday</i>		
Equipment	Teacher (Interviewer)	Student (Interviewee)
Video camera with built-in microphone or audio input (for microphone) A way to distribute video (live, podcast, or tape) Set or place to conduct interview	Advertise opportunity to students (through news, parent newsletter, or asking other teachers to help) Buy-in and support from faculty A standard routine to put students at ease (e.g., introduction of interviewee, description of what you found/observed/want to share, questions discussed ahead of time off air with student) Schedule/calendar posted in public place	Supportive media center staff who provide access to research materials Flexibility to meet with interviewer Time, usually out-of-class, to prepare for interview



Sharing Science

Fernando was not alone on this journey. Each week, students throughout the school have approached Ms. T. with a wide range of science discoveries to share. Over the last five years, *Science Friday* has featured everything from a pet gecko to birds' nests to brain research. Whole classes have appeared to sing science songs, to demonstrate solutions to egg-drop challenges, or to talk about the deer skeleton found at the edge of the school property.

Scientist parents have presented everything from the night sky to the work of the Environmental Protection Agency on the show. Museum staff recruited students for a local BioBlitz, during which community members worked with scientists to inventory local organisms over a 36-hour period. The school nurse taught the science behind hand washing. Teachers have shared weekend adventures to unique ecosystems and area museums.

The value of *Science Friday* has gone beyond our initial expectations. Students recognize their ability to observe and learn about the natural world as scientists. Students learn scientific skills by recording where and when an object or organism was found, as well as noting information about its habitat, such as surrounding vegetation. Students know they will be asked such questions during the interview if they secure a spot on the show. This motivates them to figure out the answers to become a guest scientist on *Science Friday*.

The science students share creates a buzz around the school, energy that fuels new investigations. Experiences on *Science Friday* have sparked a third-grade caterpillar specialist and a kindergarten class that know all about the turkey vultures that ride the thermals near our school. One year, a teacher's interest in rocks launched a schoolwide rock collection adventure. Students may begin by sharing one organism or one project, but often return multiple times to share additional observations or discoveries of new organisms. To date, more than 100 students have appeared on *Science Friday*.

What's Next?

It will be interesting to learn whether an appearance on *Science Friday* fosters a lasting love or keener eye for science. We are tracking the number of students who participate and are creating a video bank of all appearances on *Science Friday* for our website (see Internet Resources). We plan a short survey for students, parents, and staff to evaluate *Science Friday*. We also plan a study on the effects of *Science Friday* on students' interest in and aware-

ness of science, technology, engineering, and mathematics (STEM) careers.

What's next for Fernando, our resident entomologist? Fernando recently made an appointment with a scientist outside of school hours to learn how to begin his own insect collection. He worked with the naturalist to pin his first specimen, the wheel bug. He has written a short paper about this insect and will share information with anyone who will listen. During a recent visit to a local science museum, Fernando spent a great deal of his time in the insect exhibits, identifying assassin bugs, variety cockroaches, leaf-cutter ants, and butterflies. While he was there, he also spent a good bit of time digging for fossils in the museum's fossil dirt pit. Now he's asking for books about fossils in our media center—sure to make an interesting segment! ■



Tell us what you really think.

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Internet Resources

Forest View Elementary School

www.forestview.dpsnc.net

Responsible Use of Live Animals and Dissection in the Science Classroom

www.nsta.org/about/positions/animals.aspx

Science Friday

www.sciencefriday.com

Connecting to the Standards

This article addresses the following *National Science Education Standards* (NRC 1996):

Content Standards

Standard G: History and Nature of Science

Grades K–8

- Science as a human endeavor

Grades 5–8

- Nature of science
- History of science

National Research Council (NRC). 1996. *National science education standards*. Washington, DC: National Academies Press.