SCIENCE BUDDIES in Action

Teacher
Diane Vozzola
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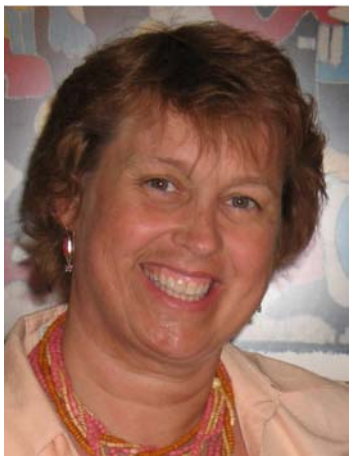

Summary
When it was time to revise the science curriculum, Ms. Vozzola turned to the Science Buddies Project Guide to help her and her teammate develop an inquiry-based unit introducing the scientific method.

Overview
Diane Vozzola, who has been involved in education since 1982, and her teammate Ms. Trask teach 44 vivacious 2nd graders. In the past, they have used science kits to teach science concepts to their students. The kits, however, often had the students simply do an activity and reach a conclusion. The students gained knowledge and had a fun time, but Ms. Vozzola felt that the activities were not building scientific knowledge the way it should be built: by inquiry.

When Ms. Vozzola and Ms. Trask decided to revise one of their science units to include an introduction to the scientific method, they went looking for information so that they could filter out key points to present to their students. Ms. Vozzola found other online resources before discovering the Science Buddies website, but "they weren't really user-friendly. They weren't set up in a way that was clear."

After finding the Science Buddies website during a Google search, Ms. Vozzola proceeded to explore the Project Guide. When she saw the flowchart in the "Steps of the Scientific Method" section of the Project Guide, she said, "Yes! This is how I want to go. This is how I want to present the scientific method."

One of the features of the Project Guide that was most useful was the "Key Info" section at the top of each section. "The Key Info section helped me to identify key concepts I should focus on teaching during the time I had. Your resource was so helpful in making sure we covered all the steps, in addition to offering a thorough explanation of each of the steps."

Following good educational practices, Ms. Vozzola and Ms. Trask designed the curriculum to progress from structured learning experiences, to guided experiences, and finally to open-ended inquiry. "We did modeling with the kids, and then gradually released them to work on their own," she shared. The final activity of the unit was the "floating golf ball." After having her students make hypotheses about why the golf ball was floating ("something was added to the water to change it so the ball would float"), they worked on independent investigations to test their hypotheses. The students were shocked to discover that adding a variety of things to water—baking soda, brown sugar, salt—would make the golf ball float.

By incorporating principles from the Science Buddies Project Guide, Ms. Vozzola and Ms. Trask were able to develop an inquiry-based unit that introduced their 2nd-grade students to the scientific method. We asked if doing so improved the curriculum. Ms. Vozzola replied, "Anytime you're not telling kids what to think, it is always an improvement. It's great when you get that 'aha!' moment. When [students] discover things for themselves, it stays in their minds."