Writing: Not Just for Language Arts

By Marsha Ratzel

I wanted my 6th graders to write in science class. My goal was to inspire them to demonstrate their understanding of the properties of minerals as well as the elements of good writing. I realized it would be no easy task. After all, minerals are not a topic high on the interest list of any 12-year-old I know.

Yet I found myself in a computer lab full of students who were happily typing their hearts out, writing about minerals. And later, I commented on one well-written essay after another. Was I surprised? Yes. Was I satisfied? Absolutely. All my scheming had paid off.

Let me tell you how my students and I did it.

It’s All About the Prep

I’m convinced most students don’t like to read content-area material because it isn’t always well-written. So, throughout the school year, we find examples of high-interest nonfiction writing. We've spent time “noticing” how professional authors create engaging sentences and paragraphs in nonfiction books. We've collected examples that impress students, including snippets from the work of other students who came up with “WOW” starters for their articles.

To succeed as academic writers, students first have to know the topic. They can’t be worried about the “meat” of what they’re going to say—they need to be focused on how to say it.

Students also need to know what is expected. What are the criteria by which you will grade the writing piece? What is the length target at which to aim—do you want to see five sentences, three paragraphs, or 200 words? What content items should be covered? What questions must be answered? Plainly stating what you expect helps students face what may seem like an intimidating task. While your level of explanation may vary from grade to grade, clear expectations make it easy for students at every level to be successful.

And they need a roadmap. Whether you’re asking students to write a lab report in science, a persuasive essay in history, or a clear description of a mathematical procedure, students will need a substantive plan of action. Your job is not to hand over the roadmap in full, but to guide them in developing it. In addition to grading criteria, the roadmap should include a brainstormed list of ideas they’ll use to make their case, multiple pieces of evidence, and any personal writing goals they set for themselves.

Prewriting Activities

The simplest way to support the writing process is to practice each phase as a whole class, then talk about what worked and why it worked. Once students get in the habit of seeking advice about their ideas, they'll learn to rely on each for inspiration, help, and support—and you’ll see their writing improve.
For prewriting, I’m a fan of brainstormed lists of ideas instead of outlines. I know I should favor an outline, but many kids hate them! I find that structured brainstorming accomplishes the goals of an outline, but skirts the resistance that an outline provokes (at least in my classroom).

First I ask them to list the ideas they want to share in their piece, jotting down bullets silently. Then they share their bullets with the whole class. Those who are best at doing this inspire others who are struggling. Everyone can fix up what they have as we go along. Next, we sort through the bullets, group similar items, name (and even color-code) categories, and figure out the logical order of ideas. Bullets often become "topic sentences"—another phrase my students dread.

Making the Case With Evidence

Academic writing requires students to be good at using different kinds of evidence. Depending on the content area, “evidence” might be a diagram, map, primary source, equation, or lab results. Students might draw upon their notes, experiments, or journals to support their ideas. They should identify what evidence best helps support the points they wish to make.

It’s not easy to learn which kinds of evidence are most convincing—but practice, discussion, and critiquing can help. To prepare students to be good writers and critical thinkers, weave evidence into as many classroom activities as possible (not just writing assignments). Rather than just saying what they think, students need to learn to offer something that backs up their thinking.

Connect to Other Writing Experiences

When we're working on prewriting, I make connections back to the students' language arts classes. What do they know about their own writing strengths and weaknesses, based on their teachers’ and students’ feedback in language arts? Is their writing clear? Do they use compelling evidence? Is it organized? Do they spell things correctly? What revising strategies work best? They usually list one or two things, and I ask them to keep those things in mind as they begin to write.

After all the writing is done, they’ll use both the brainstorm list and their writing goals to evaluate how well they think they did. This is my way of helping students see how their work in math, science, or social studies connects to the skills they've been learning in language arts. I want them to see the value of that learning in other contexts.

Start Up Their Writing Engines

Sometimes the most daunting stage of the process is kicking off the actual writing.

But if prewriting exercises have helped students identify their main points (and what evidence they’ll use to back up these ideas), they should be able to start writing quickly. I often begin by having them look back at a few examples of powerful writing that we've collected, so that good writing is fresh on their minds. Then I use the same process as before: Students work on their writing silently and then share with the class, after which everyone is encouraged to revise their work and incorporate other good ideas they hear.

If I’m lucky enough to have secured time in the computer lab, we use the blogs we’ve set up as a class, so students can see each other's work almost immediately (and I can comment as each piece appears on our blogging website). Otherwise, students write on paper and circulate pieces for feedback. Then they turn the articles in to me and wait to see what I have to offer. I must say that it's much more satisfying for
them to get the immediate feedback available when we use electronic methods—and it gives them the feeling of writing for a broader audience. But it’s just not always practical in a school with limited computer capacity.

**Be Imaginative**

In a recent writing activity, I told my science students that their favorite book publisher needed three more minerals to complete a new edition of *Rocks & Minerals*. Alas, the author was unavailable to write the articles and—amazingly—our class had been asked to help out. Since we were writing online, I had someone play the author, who said she was off in Africa for a rock concert (get the pun?) but would occasionally comment on things they’d written. This added to the buzz and generated lots of motivation to make their writing even more compelling.

About half my students believed me—hook, line, and sinker. The others were skeptical but played along. However, everyone wrote their hearts out to help out the publisher, noting it was such good luck that we'd done a relevant prewriting activity just two days before. At the end of the task, no one was too upset that they'd been April-fooled. And we were fully prepared to rise to the occasion should we ever have to make the case for our favorite minerals in a future volume.

Marsha Ratzel is a National Board-certified teacher in the Blue Valley School District in Kansas, where she teaches middle school math, science, and sometimes social studies. To read more of her writing about her teaching practice, visit her blog Reflections of a Techie.