



Learning the World

Writing Creative Explorations of Natural Phenomena

BERTHA ROGERS

MANY YEARS AGO when I began teaching creative writing in schools, I had already been writing and publishing my poetry for some time, and both my writing and teaching work echoed the style of the time. I was certain that the impetus for writing poetry was the feeling that inspired it, certain that that feeling was sufficient unto itself. The poetry that spoke most clearly, I believed, was the confessional, insular type popularized by the poets Theodore Roethke, Sylvia Plath, Anne Sexton, John Berryman, and Robert Lowell (I was influenced as much, I think, by the lives and deaths of these writers as by their writing). In fact, the poetry writing course that I developed was called “Feel It, Think It, Write It, Revise It.”

As I read and wrote and taught, however, I learned to appreciate writing that lived outside the “feel it” style, that used what is around us and what

*Bertha Rogers, a poet and visual artist, has worked as a teaching artist in New York City and State for more than 30 years. She contributed to the book *Open the Door: How to Excite Young People About Poetry* (McSweeney’s & the Poetry Foundation, 2013). More than four hundred of her poems have been published in literary journals, and in several collections, her most recent being *Heart Turned Back* (Salmon Poetry, Ireland, 2010). Her translation of the Anglo-Saxon epic *Beowulf* was published in 2000, and her translation of the Anglo-Saxon *Riddle-Poems*, *Uncommon Creatures, Singing Things*, is forthcoming, as is a new poetry collection, *Wild*.*

we live with, i.e., Williams’s “No ideas but in things;” Francis Ponge’s “objectivist” thinking (“Kings never open a door.”); and Neruda’s *Odes to Common Things*. It seemed to me that students could learn to express themselves better in our magnificent English language if they studied that which was outside their immediate experience; and that, once they were able to unlock that word-door, they would be better able to appreciate the larger universe. Not only that, but when inspiration hit them, they would own the tools of the craft.

Meanwhile, I was incorporating the knowledge I gained from reading (I had been an avid, even addicted reader since childhood, so going deeper was both a challenge and a pleasure). I learned that, in order to write a love poem that sprang out of a visit to the Metropolitan Museum’s compelling Assyrian statues, it was necessary for me to study the Assyrians, their culture, geography, and science. When I wrote a poem that originated on the farm where I was raised, I needed to recall not only my own life on the farm, but the culture of farming in Iowa’s rural communities. If I felt a whale or a shark or a constellation was an appropriate image in a poem, I went to the encyclopedia to study the natural world.

From these beginnings, it was an easy leap to using science and history in my teaching; the approach

opened portals to me and to my students, and I developed courses called “Becoming a Bird,” “History in the First Person,” “Legends and Folktales for Fun,” and those courses became staples in my repertoire. To write as if I were a bird meant that I had to learn their structure, how their wings were constructed and how they stayed aloft. I began to understand why science is the mysterious art that leads to questions and answers, a perfect conduit to writing creatively.

For the past few years I have taught writing in a number of science and ELA classrooms in New York City and in Upstate New York. One of the the Common Core standards states that students should learn about natural phenomena in order to understand and explain those phenomena. In my work in the classroom, I have found that students with the ability to do this not only learn to respect and value other creatures, but they learn to embrace, with awe, their place in our vast and intricate world. When a child “gets” that pigeons have complex lives, when he learns the stars’ patterns, he begins to grasp the concept of empathy, and he understands why so many creative writers use nature as an impetus; he hungers for answers to why he and other creatures are even here, and he wants to write about this.

The students I taught in Ann Marie Terranova’s sixth grade ELA class in Queens, New York, provide a wonderful example of how writing enhances the study of science and, also, how exploring science enhances student writing. For the past few years I have been in Ms. Terranova’s class at PS 122 as a teaching artist with Teachers & Writers Collaborative. The writing prompts we used in this class included news reports of the earth-like, out-of-our-solar system planet Kepler 22b, as well as reports on two black holes whose masses—equivalent to ten billion suns—threaten to swallow all, including light, within a region five times the size of our solar system. We explored these phenomena using images projected on the classroom’s Electronic Learning System whiteboard. In the shade-drawn, darkened space, the images of Kepler 22b brought us to a new world, and the

black holes were every bit as terrifying as they sound. This information helped us write about how people long ago explained the heavens to each other and, in the process, confronted their own mortality

I assigned further research, via both books and the Internet, on black holes and the Kepler 22b planet then asked the children to write villanelles and sestetinas using their notes. To give them a sense of this poetic form, I read, out loud, villanelles by Elizabeth Bishop, Theodore Roethke, and Donald Justice. I also provided the students with templates of the form so as not to flummox them with the poem’s complicated rhyme and rhythm schemes. The children saw the process as a game, using their new poetic tools with gusto.

Black Hole Villanelle

NOWSHIN ISLAM, PS122Q, 6TH GRADE

The black hole will come faster,
Faster than you think.
It will not attack you in disguise, it will come as a
disaster.

The master of your master,
Too bad the black hole will mistake you for a drink.
The black hole will come faster.

There will not be a happy-ever-after.
Too bad the black hole will not rethink.
It will not attack you in disguise, it will come as a
disaster.

It lives in space’s gases, the outer.
The end is in front of us, we’re on the brink.
The black hole will come faster.

Unlike movies, reality has no solution, no actor.
To you, maybe it’s known as a bad hole, a sink.
It will not attack you in disguise, it will come as a
disaster.

No rich can escape by paying over the counter.
It will not leave a sound, not one “clink.”
The black hole will come faster.

It will not attack you in disguise, it will come as a
disaster.

Animal Legends and Odes

Everyone knows that children are fascinated by dinosaurs, and it has become increasingly clear that birds are descended from those reptiles. Couple that knowledge with the seemingly-eternal rapture people feel about birds, their color and song; and you have the makings of a great science and writing project. This year, Ms. Terranova and I again used the Electronic Learning System to observe Cornell University's webcam feeds of red-tailed hawks, and of Great Blue Herons. We investigated mammals, too—the northern Minnesota black bears and Pennsylvania gray squirrels in their boxes. The students did additional research on these animals and their environments, then created legends and odes about these familiar yet alien creatures (“How the Red-Tailed Hawk Got Its Color”; “Why the Great Blue Heron's Eye is Like the Sun”).

Ode to the Squirrel

SARA JESSIE KANE, PS 122Q, 6TH GRADE

Oh Squirrel,
 you scamper up the bark,
 in quick small movements,
 You shoot up the tree
 like a furry dart,
 gray and brown blur.
 You nestle in your nest,
 curl up, seek warmth.
 You bicker in your foreign language,
 crack the acorns,
 nurture the young.
 Survive.
 Supplies of acorns
 packed away in crates of straw,
 piled atop each other, snuggling up
 against the fingers of frozen night.

Thanks to the Electronic Learning System, we went from the vast universe to the micro-universe of tardigrades (water bears or moss piglets), tiny creatures that can survive space and “death” for years, only to be rehydrated and live. The tardigrades, in particu-

lar, have inspired many poems and stories.

Water Bears (Tardigrades)

Japanese Haiku

SEBASTIAN BERMEO, PS 122Q, 6TH GRADE

Water bears, smaller than peas
 They look like plankton
 But nobody can see them

Ode to the Great Blue Heron

After Watching the Great Blue Heron Webcam

ARCHI DAS, PS 122Q, 6TH GRADE

Look, up in the sky!
 Is that a Great Blue Heron?
 Its grayish feathers
 are blending with sky!
 Its long legs are like twigs
 broken from the trees!
 Its legs jut backwards like a dog's
 Its long feathers cut the wind!
 Its sharp, yellow beak is a spear swishing its way
 through the air!
 Oh, what a graceful and
 majestic bird
 the Great Blue Heron is!

At Bright Hill Literary Center in the Catskills, our workshop students explore the ancient life forms that have left their mark on the environment. We take the students out to look for fossils of trilobites, which lived in the Devonian Sea and are numerous in this area. The children study the trilobites, draw them, and then write about them. To inspire the students' writing, I read poems by Charles Simic (“Stone”), Emily Dickinson (“I'm Nobody”), and Pablo Neruda (“Atoms,” “Ode to Salt,” “Ode to Tomatoes”), poems that wonder about and explore the poet's place in his or her world. I read them legends and folk tales that make magic of science, and they delight at how peoples in every corner of the earth want to know “why.”

Sunto ius aspiend isitio. Nempora quodis pa
nuscien tibusda mendeni coritia ectendelent
voluptae vit modianditis unt verumquam rat
quatio volorib eatiunt quam, cus.

The Common Core Curriculum in Science pos-
its, as one of its key ideas, that “The central pur-
pose of scientific inquiry is to develop explanations of
natural phenomena in a continuing, creative process.”
There is no more creative process than writing. The
stuff of legends and the language of science are both
metaphoric in nature. This is how we learn the world
and how we learn where we belong. 🤖



