# **EDUCATION WEEK**

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## The Age of Wonder

#### By Peter Huidekoper Jr.

As we begin a school year, it might help to *wonder*. Just that.

To question, to search, to wonder.

"All men by nature desire to know," Aristotle wrote.

Our students, whether in 2nd grade or 7th, whether

"partially proficient" or "advanced," want to know. How critical that we as teachers tap that desire, that curiosity.

To that end, we must remind ourselves how *little* we know and how much there is to know. As Eric Chivian, the director of the Center for Health and the Global Environment at the Harvard Medical School, has said:

"We have incredible knowledge about life on Earth, but it is such a small portion of what is there. We know so little. The belief is that we have cataloged about 1.9 million species, but there may be 10 times that number, there may be 100 times that number; nobody knows."

Look to the sea. A **10-year census** of marine life just completed finds that today we might know only one-quarter of the species in our oceans. The census revealed over 20,000 forms of life in zones previously considered barren, below the reach of sunlight. We have yet to explore more than 5 percent of the oceans, which cover 71 percent of Earth's surface.

Look up. The universe is thought to be 13.7 billion years old and probably bigger than a distance of 13.7 billion light years. And we're just *beginning* to understand Mars, Venus, and Jupiter.

"The greatest obstacle to discovery is not ignorance," the late historian Daniel Boorstin observed, "it is the illusion of knowledge."

### "Wonder is sweet," Aristotle wrote.

(How clever of him to sound just like an American teenager!)

To learn, it is best to begin humble, open, unsure.

Most adults know that feeling. Teachers *must* know that feeling. And yet, we forget. Sometimes, as we focus on convincing parents, students, principals (*our evaluators*), even colleagues, of how much we know, we lose touch with this quality we so hope to find in our students. Our foolish pride gets in the way as if we need to prove we know more than those



"Searching invites participation. Knowing says, 'I hope you can begin to catch up to me, here at the finish line, here with my wealth of information.'" darn bright kids staring back at us, who read better than we ever did and absorb new information faster than we ever could.

Better to wonder, to inquire. To open with a question, as Professor Ogden did, in that threehour seminar on Milton's *Paradise Lost* at Trinity College. He looked around, leaned forward in his chair, stroked his beard, and asked, "What is freedom?" It was almost 40 years ago, but I remember.

#### Aristotle wrote, "Wonder implies the desire to learn."

As teachers, do we demonstrate that desire?

Many of us recall that first year of teaching a novel or story and how exciting (and nerveracking) it could be. We didn't know the material as we would in a few years, after our questions grew stale. I taught Russian literature in four settings. No class was ever as engaged as my first-semester juniors and seniors. I knew full well that I was in over my head as we read Tolstoy, Dostoevsky, and Solzhenitsyn. Those students were discovering this largely unknown and still—in those Cold War days—almost forbidden territory. This was a mystery for us to try to unravel together. Similarly, one of my best experiences was as a college student, when tutors led seminars in subjects that were almost invariably out of their fields. The Great Books they examined with us were usually far removed from their own doctoral work. They were tutors with a desire to learn Plato or Euclid, Aquinas or Machiavelli, humbled before some of the great minds of our civilization. We never dismissed the texts as out of date. We studied them with respect that they might have something valuable to tell us.

Searching invites participation. Knowing says, "I hope you can begin to catch up to me, here at the finish line, here with my wealth of information." The former fosters wonder and learning; the latter, regurgitation and boredom.

We've had many fine teachers who knew so much, who shared that knowledge, who cared about the subject and us, their students. And we learned from them. A recent study found that lectures have great value. This is no surprise. It is highly engaging to enjoy the twists and turns in a good lecture. But in K-12 schools, especially in the grades leading up to high school, teacher-talk must be brief. The questions, the invitation to participate, *those* must be central.

I struggled as a teacher when I saw in my students little sense of wonder, the armorlike shrug, the impress-me-I-dare-you look, their challenge for me to make the subject interesting or fun. How lucky we feel, as I did a year ago, to see Mollie's and Jake's fascination as they recounted what Tom and Huck are up to in the graveyard, and at what Achilles and Priam are feeling as the Trojan king asks for the return of his son's body. How grateful we are to see the confusion and hurt in the eyes of Amy and Zach when they read the questions a young Anne Frank, nearly their age, asked in 1944 while hiding in Amsterdam: "Who has made us Jews different from all other people? Who has allowed us to suffer so terribly up till now?" Wonder, of course, can be at man's capacity for Evil, as well as for Good.

We all wish we knew how to nurture that, how to make it the norm.

A place to start, perhaps, is *A Place for Wonder: Reading and Writing Nonfiction in the Primary Grades*, by Georgia Heard and Jennifer McDonough, which, in spite of its title, has applications for all K-12 students. Or Richard Holmes' *The Age of Wonder*, in which he takes a look back at

http://www.edweek.org/ew/articles/2011/10/12/07huidekoper.h31.html?print=1

the dawn of the 19th century, inspiration perhaps for our 15-year-old future scientists and poets.

There are endless possibilities, really. It is both our challenge and our privilege to see our students as alive and curious in their own Age of Wonder.

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