Dear Biology Educator,

Someone asked me the other day, what do I see as the key content in an introductory biology curriculum? Of course, all of you know that this question comes from the concern about the No Child Left Behind testing in science. As I read the newspapers, I see that New Jersey has decided to have content specific tests with the Biology Test being the first one to be administered. So again biology becomes the first science.

Needless to say, the question about my view on essential content is colored by experiences in BSCS, Benchmarks in Science Literacy, and the National Science Education Standards. Probably the biggest impact on my thinking was words from a colleague 20 years ago. This physics teacher was trying to engage the school administration in a dialogue to explain that science is not a collection of facts but that the information is necessary to build the bigger picture—the concepts. I can still hear this teacher repeating, “The whole is greater than the sum of the parts.” In my way of thinking about biology, I had to agree. What are the parts? What is the whole? My concern with teaching more is that in the study of biology consists of biological terms is that in the study of the whole? My concern with teaching more is that science is not a collection of facts but a collection of facts to memorize.

My thoughts about the key ideas in biology are not easily translated into questions for national tests. Is this a solid approach? Obviously, I think so. However, my conversations with teachers at NABT Conferences indicate that those who are excited about what they are doing hold the same philosophy. We are not all on the exact same page in specific examples to illustrate the unity, diversity, and interrelationships in the living world. We are not “covering” the same material. What we share is the excitement in our classrooms when our students see the “forest instead of the trees.”

I look forward to talking with you about these ideas in Atlanta at the NABT National Professional Development Conference, November 28–December 1, 2007.

Pat Waller
NABT President-2007

References
