

principle that provides the foundation to understanding the natural world.” If colleagues need more support or additional resources, have them contact NABT or direct them to one of the helpful resources are that are readily available (including the Understanding Evolution site at <http://evolution.berkeley.edu/>).

We owe it to our students and our colleagues to CONFIDENTLY ADVOCATE for the teaching of all aspects of biology, and that absolutely includes teaching evolution.



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NABT President – 2013

LETTER

What should biology teachers do when a student asks to be excused from learning about evolution? The NABT position statement on evolution is clear: “Just as nothing in biology makes sense except in the light of evolution, nothing in biology education makes sense without reference to and thorough coverage of the principle and mechanisms provided by the science of evolution.” A student who is excused from learning about evolution is not going to attain a satisfactory understanding of biology.

But it is often difficult to refuse such a request, because of explicit policies or implicit practices that permit students to be excused from a particular objectionable activity or assignment. And the recent approval by Missouri’s voters of a revision to the state constitution that provides that “no student shall be compelled to perform or participate in academic assignments or educational presentations that violate his or her religious beliefs” is expected to unleash a spate of such requests.

Faced with such a request, it seems prudent not to *refuse* it, but to try to *defuse* it. Open a discussion, identify the student’s concerns, and try to allay them. With any luck, the student (or his or her parents) will decide that learning about evolution is not such a threat after all. A few points to consider using in the discussion:

- The purpose of all education – not just in biology – is to increase student understanding, not to change their beliefs. The point of teaching students about evolution, like the point of teaching them about osmosis or photosynthesis, is having them understand what scientists think and why.
- Evolution is accepted by scientists of all faiths and of none – from the atheist Richard Dawkins to the evangelical Christian Francis Collins, the director of the National Institutes of Health – on the basis of the scientific evidence. It is not intrinsically antireligious.
- Evolution is not, and is not intended as, a worldview containing claims about the nature of the universe or the non-existence of God or the unreality of morality. It is simply a part (and a crucial part)

References

- Dobzhansky, T. (1973). Nothing in biology makes sense except in the light of evolution. *American Biology Teacher*, 35, 125–129.
- White, T.D., et al. (2009). *Ardipithecus ramidus* and the paleobiology of early hominids. *Science*, 326, 75–86.

Resources for Teaching Evolution

- <http://live.psu.edu/story/51023>
- http://www.aaas.org/news/releases/2009/1001sp_ardi.shtml
- <http://ideas.time.com/2012/04/23/are-we-sliding-backwards-on-teaching-evolution/>
- <http://evolution.berkeley.edu/evolibrary/teach/index.php>
- <http://ncse.com/evolution/education/cans-cants-teaching-evolution>

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of the biological enterprise of trying to understand the patterns and processes of the living world.

- Especially for students intending to pursue higher education, it’s important to learn about evolution. Evolution is taught matter-of-factly at the university level in science classes, and students who haven’t learned about it in their high schools will be at a disadvantage.
- Professional scientists and professional science educators are agreed on the importance of evolution in science education (Sager, 2008). Asking science educators to excuse their students from learning about evolution is asking them to do their jobs badly.

The National Center for Science Education exists to help teachers facing challenges to the teaching of evolution (and, as of 2012, climate science). So if you find yourself in need of help in responding to opt-out requests, or if you have experiences, whether good or bad, in dealing with such requests, please don’t hesitate to get in touch.

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References

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