When John Freshwater, who taught eighth-grade science in Mount Vernon, Ohio, was fired in 2011, it was in part because he was presenting to his students what he described as evidence *for and against* evolution—which was, in fact, creationist propaganda. In doing so, he flouted not only the Establishment Clause of the First Amendment to the Constitution but also the directives of his district administration and the guidance of professional organizations such as the National Association of Biology Teachers (NABT). The NABT rightly describes evolution as “a necessary part of teaching biology” that “should be a major theme throughout the life science curriculum,” while rejecting calls for creationism to be presented as part of the science curriculum.

It would be comforting to think that the Mount Vernon situation was a rare aberration—especially because middle school science teachers play a huge, though often unappreciated, role in evolution education. Although typically presented most thoroughly in high school biology classes, evolution usually appears first in middle school life and earth science classes, where it serves as a vital foundation for future learning. Natural selection, adaptation, and evolution itself are mentioned, and multiple lines of evidence for evolution are introduced, at the middle school level in the Next Generation Science Standards (NGSS) and in the state science standards of a majority of states. But what are middle school science teachers in fact teaching about the status of evolution? Are middle schools inundated by Freshwaters?

Fortunately, no. According to a new study published in *Evolution: Education and Outreach*, based on a national representative survey of public school science teachers conducted by researchers at the National Center for Science Education (NCSE) and Penn State University, a solid majority—82%—of middle school science teachers who teach evolution agreed that they emphasize the scientific consensus on evolution, a figure reassuringly comparable to the 86% of high school biology teachers who do the same. Yet the middle school science teachers were substantially less likely than their high school counterparts to conform to NABT’s recommendation of emphasizing the scientific consensus on evolution while not presenting creationism as a scientifically credible alternative, as shown in Figure 1. The disparity is plausibly in part due to a lack of knowledge about the scientific consensus on evolution, for understanding that there is a well-founded and evidence-based scientific consensus on evolution is a prerequisite to presenting it accurately and confidently. The survey asked, “To the best of your knowledge, what proportion of scientists think that humans and other living things have evolved over time?” The actual proportion, according to a 2014 survey of members of the American Association for the Advancement of Science, is 98%. But only 55% of middle school science teachers responding to the survey selected the correct range of 81–100%, as opposed to 71% of high school biology teachers.

That lack of knowledge in turn is likely to reflect middle school science teachers’ lack of knowledge about evolution in general. Of course, some are highly knowledgeable, such as Bertha Vazquez, a middle school teacher in Miami who directs the Teacher Institute for Evolutionary Science, a project aimed at equipping middle and elementary teachers to present evolution effectively. Her efforts to promote middle school evolution education won her NABT’s Evolution Education Award in 2017. But teachers like Vazquez are in the minority at the middle school level. Indeed, in the survey, 42% of middle school science teachers reported having no preservice or in-service coursework covering evolution whatsoever, as compared to only 19% of high school biology teachers.

Improvements in middle school evolution education are on the horizon, thanks to improvements in the treatment of evolution in state science standards. A previous study by the NCSE/Penn State team found that the adoption of the NGSS was significantly associated with a shift between 2007 and 2019 among high school biology teachers toward conforming to NABT’s recommendation of emphasizing the scientific consensus on evolution without presenting creationism as a scientifically credible alternative. And while earlier data on middle school science teachers were not available, the new study also found that in 2019, middle school science teachers in states that have adopted the NGSS were significantly more likely to conform to NABT’s recommendation.

Yet improvements in the treatment of evolution in state science standards are not enough. To realize the potential for improvement in evolution education in the middle school science classroom, these teachers must receive the support they need to teach evolution effectively. That includes appropriate preservice and in-service coursework, both in evolution and in effective evolution pedagogy; instructional material that reflect the scientific consensus on evolution in engaging and effective ways; and the support of their colleagues and their professional organizations. For it is just as true in middle school as it is in high school that nothing in biology makes sense except in the light of evolution.