

19 November 2013

A Message to the Texas State Board of Education:

Textbooks adopted for use in Texas schools have a profound influence on science education not only in Texas but across the United States. As professional societies of educators and scientists, we are concerned by recent reports that unqualified, ideologically-driven textbook reviewers are seeking to undermine the teaching of such key scientific topics as biological evolution, physical evolution of Earth's surface and interior, and climate change. Based on promotion of nonscientific or anti-scientific concepts, these ideologically driven critics are demanding revision or rejection of good textbooks that meet long-standing broad scientific educational principles accepted by the scientific community. The undersigned scientific and educational societies call on the Texas State Board of Education to adopt textbooks based on the advice and guidance of the many excellent scholars and master teachers of science in Texas, and in concurrence with the position papers that many of these societies have promulgated regarding the teaching of science. Textbook adoption should not be based on ideologically driven and nonscientific arguments: basing such adoption on accepted science will ensure that students in Texas and beyond will learn the best science, especially in the scientific arenas such as physical and biological evolution and the scientific basis of climate change.

The scientific theory of Evolution, as first described and publicized one hundred and fifty years ago by Darwin and his contemporaries, is the foundation of modern biology, an explanation for the diversity of life on earth that has opened up tremendous scientific and technological opportunities. It is central to fields as diverse as agriculture, biology, computer science, engineering, geological sciences, and medicine. The acceptance of the modern theory of evolution requires simultaneous acceptance of a lengthy time scale for the development of Earth's biological and physical systems that stretches back into the billions of years, as many scientific investigations over the last 150 years have demonstrated unequivocally. It is the refusal to accept this time scale that underlies the denial of the theory of evolution, and this refusal is entirely based on religious belief with no legitimate reference whatsoever to science. The objective teaching of evolution should not be undermined in textbooks, whether by minimizing, misrepresenting, or misleadingly singling it out as controversial or in need of greater scrutiny than other topics are given. There is similar resistance to the teaching of scientific observations of climate change. Although climate change remains the subject of lively and appropriate debate among scientists in a way that evolution does not, we believe that texts should be allowed to present the most objective and persuasive scientific data that global climate is indeed changing, without any requirement to demean or belittle these observations.

Some textbook reviewers have openly called for creationism (either by that name or as "intelligent design" or "hydroplate theory") to be included in textbooks as an alternate "scientific" explanation to changes over time in biological or physical earth systems, which would be scientifically and legally improper. But we are equally concerned by the insistence of some reviewers that textbooks should note that evolutionary mechanisms cannot produce biological novelties, or explain the fossil record. These claims are demonstrably false and misleading from a scientific perspective. If textbooks incorporate those criticisms, students will be denied a full understanding of the tremendous explanatory power that evolution has offered to scientists for over a century, and which doctors, oilfield geologists, farmers, and NASA engineers all rely upon for their vital work.

By adopting textbooks recommended by the top scientists and teachers in Texas and which are in concurrence with established science-teaching principles promulgated by most professional scientific societies, you will give students and teachers the foundation for an exemplary science education, the sort of education that they will need to succeed in the 21st century and to assure that the United States remains competitive in scientific and technical fields in the coming years.

Sincerely,

A handwritten signature in cursive script, reading "Suzanne Mahlburg Kay". The signature is written in dark ink and is positioned above the printed name.

Suzanne Mahlburg Kay
President