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March 18, 2009

Texas State Board of Education  
William Travis Building  
1701 N. Congress Avenue  
Austin, Texas, 78701

To the Members of the Texas State Board of Education:

On behalf of our members, and especially those in Texas, the National Association of Biology Teachers (NABT) strongly supports the *Texas Essential Knowledge and Skills (TEKS)* as originally drafted by the educators and scientific experts who served on the Science TEKS Review Committees. We especially urge you to reject any attempt to include language referring to “strengths and weaknesses” or phrases with similar meaning for Process Skill (c) (3) A. The Review Committees appropriately replaced the wording for this standard to reflect how scientists and teachers evaluate scientific ideas. As the revised standard accurately states, scientists “analyze and evaluate scientific explanations” rather than look for “strengths and weaknesses.”

We recognize that the process of analysis and evaluation are higher order thinking skills, and not all explanations and concepts require this level of instruction. To allow teachers the flexibility to choose the thinking skill level appropriate to the complexity of the concept, the amendments to Biology Standard 7 should be rejected. Instead, the Standard should return to the original wording as written by the Science TEKS Review Committees.

We also strongly urge you to reject the amendment adding 7B to the Biology Standard. This amendment would require an understanding of science so advanced that it would be inappropriate for most high school learners. The complexity of the concepts involved is typically introduced at the college level, and teachers would have to eliminate many other topics from their high school biology curriculum to meet the standard required for 7B, leaving their students with an inadequate understanding of the breadth of biology.

The National Association of Biology Teachers affirms that teaching biology must be in a standards-based instructional framework, upholding scientific integrity, and the right to teach accurate and current science without penalty of political or religious influences on content. Experimentation, logical analysis, and evidence-based revision, based on detectable and measurable data, are procedures that clearly differentiate and separate science from other ways of knowing. Explanations or ways of knowing that invoke metaphysical, non-naturalistic, or supernatural events are outside the scope of science and are not part of a valid science curriculum.

The Board of Education should support science education that imparts to students an understanding of science based on the key components of the scientific method and content agreed upon by scientists and professional educators. As an organization dedicated to biology education, we are confident that students

are best served when curriculum reflects these issues and maintains scientific integrity in the science classroom. We respectfully request that you adopt the standards outlined in TEKS as recommended by the Science TEKS Review Committees.

Thank you for your consideration,

A handwritten signature in cursive script that reads "John Moore". The signature is fluid and elegant, with the first letters of the first and last names being capitalized and prominent.

John Moore, Ed.D.  
President, National Association of Biology Teachers

**Approved by the NABT Board of Directors**