January 20, 2009

The Honorable Don McLeroy
Chairman, State Board of Education
9277 Brookwater Circle
College Station, TX 77845

Dear Chairman McLeroy,

We would like to express our support for the State Board of Education's efforts to revise the Texas Essential Knowledge and Skills for Science. These updated curriculum standards will help ensure Texas public school children gain a solid understanding of the various science disciplines and that they can apply their knowledge and think critically about the world around them.

We believe strongly, however, that the State Board of Education should retain its requirement that students analyze, review and critique scientific explanations, including hypotheses and theories, as to their strengths and weaknesses using scientific evidence and information.

Critical thinking is the bedrock of scientific inquiry. The ability to analyze and evaluate ideas with regard to their strengths and weaknesses, advantages and disadvantages, with evidence that supports as well as data that conflicts with an explanation is an essential part of the scientific process. We ask you not to abandon these foundational process skills, as they are crucial for students to develop.

Science education that does not encourage students to evaluate concepts is not teaching students about the way science really operates. Simply presenting conclusions without having students examine the assumptions that underlie those conclusions is more about indoctrination than education and is a disservice to the nature of true science. Students should be learning how to draw conclusions based on an unbiased presentation of the empirical evidence, and a strong science curriculum should encourage these skills.

The history of science shows that the prevailing consensus is not always correct, therefore scientific explanations must remain open to evaluation, refinement and refutation, when necessary. Students should not be taught that some hypotheses and theories are beyond critique.

By continuing to support the vital skills of scientific inquiry and encouraging students to apply their curiosity toward further examination of the strengths and weaknesses of various scientific explanations, Texas public schools will be developing a citizenry with a solid understanding of science principles and a means to develop new answers to the problems they face in an ever-changing, more complex world.

We recognize the daunting task you face as you revise the Texas Essential Knowledge and Skills. Thank you for your willingness to undertake this effort to ensure our students have both the science knowledge they need and the requisite ability to analyze, evaluate, and critique competing information to draw informed, objective conclusions.

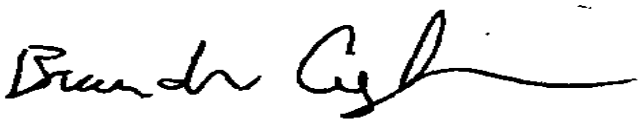
Thank you for your service to the State of Texas.

Sincerely,

State Representative Wayne Christian

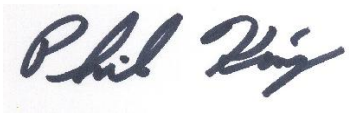
State Representative Linda Harper-Brown

State Representative Ken Paxton



State Representative Brandon Creighton

State Representative Dan Flynn



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