



RESPONSE TO DRAFT OF SCIENCE TEKS WORK GROUP B RECOMMENDATIONS

The Science Teachers Association of Texas (STAT) is a community dedicated to advancing science teaching and learning with a membership of more than 5,000 Texas science educators across all science content areas, grade levels and positions. The strength and efficacy of the Science TEKS is of critical importance to our members and our association in this effort, and we are grateful to the SBOE and TEA for the thoughtful approach being taken in this process and for the opportunity to provide our collective feedback.

STAT has convened Texas science educators from around the state and who represent various roles in science education to review the recommendations of Work Groups throughout the TEKS Revision process.

Overall, STAT is impressed by the draft of the Biology, Chemistry, Physics and IPC TEKS put forward by Work Group B. Many of the recommendations are directly aligned to the practices and beliefs of the scientific community and to relevant research as outlined in the K-12 Science Framework. We especially appreciate the addition of the Science and Engineering Practices (SEP) and Cross-Cutting Concepts (CCC), as the inclusion of both supports STAT's formal, Board-approved position and goals for the TEKS revision.

The Work Group B draft includes several highlights:

- Direct referencing of the Science and Engineering Practices is a welcome and important change;
- Providing a scaffolded approach to build Science and Engineering Practices from grade K to 12;
- Insertion of Cross-Cutting Concepts within the standards to assist educators in seeing the connections of the scientific content within and across multiple concepts;
- Utilizing current research and language in the standards such as scientific literacy;
- Improved clarity of standards across all High School courses; and
- Providing clarity within the standards regarding the depth and complexity of student understanding.

Issues to address from Work Group B:

- The one recommendation that STAT would like to see explored further in the TEKS draft is the continued embedding of the Science and Engineering Practices (SEP) and Cross-Cutting Concepts (CCC) within the content standards, when appropriate. We believe that a further pursuit of this effort will provide students with a more targeted, focused learning experience as well as clarity for instruction, student performance and assessment for both teachers and students.

A question debated among our team was the potential challenge teachers may have with these additions, as there may be uncertainty with familiarity with SEP and CCC concepts and how they support and enhance the TEKS. After discussions, our organization is confident that teachers will be able to facilitate the implementation of the new standards with SEP and CCC embedded; the structure of the TEKS will continue to look familiar due to the Texas Education Code's specificity regarding the structure of the Texas Essential Knowledge and Skills.

In an effort to provide further clarification, STAT has drafted an overview of key concepts being introduced in this work, which may be useful to the non-science educator and science educator alike, to help explain these ideas more clearly (provided in a separate document).

Additionally, in coordination with STAT, certain STAT affiliate organizations are facilitating review of content standards by the subject-matter experts and practitioners, as applicable, and we encourage consideration be given for their feedback. These include:

- Texas Science Education Leadership Association
- Texas Section, American Association of Physics Teachers
- Associated Chemistry Teachers of Texas
- Texas Association of Biology Teachers
- Texas Association for Environmental Education
- Texas Earth Science Teachers Association

We appreciate the commitment by the SBOE and TEA to ensure that Texas students are the most scientifically and technologically literate in the country and that our TEKS are based on current research and best practices in science. We are grateful for the opportunity to participate in the process to improve Texas science education and for your consideration of the STAT perspective.

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