# Guidelines for Content Advisor Feedback

Please review the proposed revisions to the Texas Essential Knowledge and Skills (TEKS) for the four existing high school courses (Aquatic Science, Astronomy, Earth and Space Science, and Environmental Systems) and the proposed new high school science independent study course, Specialized Topics in Science. Use the following questions to develop feedback for the State Board of Education regarding revisions to the standards.

There is no specific format required for your feedback. When referencing specific portions of the TEKS, please indicate the course and the specific letter/number of the standard to which you are referring, as appropriate. Feedback may be limited to specific courses; however, please specify in comments which course(s) is addressed.

## Guiding Questions

1. Does each course follow a complete and logical development of science concepts presented? If not, what suggestions do you have for improvement?

Yes, each course is organize and presented in a logical order and adequately develops concepts .

2. Do the standards for the course(s) adequately address scientific concepts? If not, please give examples of how the standards might be improved.

Yes, each course is extremely robust and more than adequately addresses the scientific concepts. The standards are very detailed and demand a very rigorous level of understanding. My recommendation would be to insist upon excellent teaching tools and a strong dedication and emphasis on the TEKS guides to provide teachers adequate reference and example. My concern would be the preparedness and ability for 9-12 teachers to cover these topics in the detail and depth outlined by the standards.

4. Are there any gaps or concepts missing that should be addressed? Are there specific areas that need to be updated to reflect current research?

I believe that the standards are comprehensive and complete. There are no obvious gaps in the standards. The emphasis on experiential learning coupled with the standard to interpret research and data with quantitative and qualitative inferences is superb.

5. Do these high school course(s) sufficiently prepare students for postsecondary success? If not, please provide suggestions for improving the standards.

Yes, the standards are extraordinarily rigorous and will provide a substantial foundation in the respective topics as well as the scientific approach and aspects of research.

6. Does each course include sufficient standards focused on laboratory and field investigation?

Yes, 40% of the total time dedicated to experiential learning and time conducting experiments is excellent. Additional time analyzing and discussion data is to be commended.

7. Are the student expectations clear and specific? If not, please give examples of how the language might be improved.

I believe that the expectations are clearly addressed and are specific enough. However, I will emphasize again the need for excellent teaching/TEKS guides that provide background information and laboratory/experimental examples.

8. Are there student expectations that are not essential or unnecessarily duplicative and can be eliminated? If so, please identify by course and student expectation number, e.g. Aquatic Science 5.B.

No. There is duplication of approach, but there is no duplication of material. With the idea that students will likely take 1, or maybe 2, of these courses during their high school years, there is no concern with duplication of material. If a student would take multiple courses, the experiential and laboratory exercises, including the interpretation of results, would be complimentary and synergistic.

9. Do you have any other suggestions for ways in which the four high school courses can be improved?

I would approach the “Specialized Topics in Science” course with caution. Districts and administrators need to be careful that faculty and/or students are not abusing this option to fill credits without rigor. We see this happening at the university level with courses that are listed such as this. I would suggest administrative and/or school board level approval for a course to be offered in this manner. Better yet, the may should be a TEA checklist to ensure that a course offered with this title meet set criteria before credit is awarded for an offered course. If done correctly, this course offering can add tremendous value to a students education, particularly when a district has one or more talented faculty in a given topic area.