#### Content Advisor Feedback WG F

Ronald Wetherington, 8/20/2021

#### **GUIDING QUESTIONS**

1. Do the final recommendations adequately address scientific concepts? If not, please give examples of how the standards may be improved. The recurring themes and concepts strand is good. Pending classroom experience with its SEs, the strand will doubtless require more explicit application to other strands in the future. In the meantime, I recommend using the TEKS Guide for creative suggestions.

In the new KS 5, Grades 6-8, (5)(E) is confusing; and KS 10 and its SEs need further clarification, as I indicate in my specific attached response.

- 2. Are the final recommendations aligned vertically and horizontally and don't create gaps in scientific concepts and skills? If not, what gaps or concepts are still missing that should be addressed? Alignment improvements are numerous and excellent, suitably tightening the curriculum.
- 3 Are the student expectations clear and specific? If not, please give examples of how the language might be improved. **Yes, except for those noted above..**
- 4. Do you have any other suggestions for ways in which the elementary and middle school TEKS can be improved? **See response to 1. above.**

#### Feedback on Science TEKS Work Group F Ronald Wetherington, 8/20/2021

Knowledge and Skills statement 8.10. states: **The student knows that natural events and human activity can impact global climate.** The following two Student Expectations contrast these two climate influences by specifying <u>natural events</u> in 10.A. and <u>human activities</u> in 10.B.

Since the release of greenhouse gases is the only mentioned event that can be generated both by nature and by human activity, the language should be changed from "such as" to "including" as follows (strikethrough indicates remove; underline indicates add):

# **8.10.A.** use scientific evidence to describe how natural events such as volcanic eruptions, meteor impacts, abrupt changes in ocean currents, and <u>including</u> the release and absorption of greenhouse gases influence climate; and

### 8.10.B. use scientific evidence to describe how human activities <del>can</del> influence climate, <del>such as</del> <u>including</u> the release of greenhouse gases.

I recommend removing "can" for grammatical consistency: it is not present in either 8.10.A. nor in the related 7.10.B.

I further propose continuing the logical progression of 8.10.A. and B by having the students address solutions in an added third SE, 8.10.C:

## 8.10.C. describe efforts to mitigate climate change, including reduction in greenhouse gas emissions.

In the proposed new strand, "Recurring themes and concepts", **(5)(E)** for Grades 6-8 requires re-wording. It currently reads:

### (E) analyze and explain how energy flows and matter cycles through systems and energy and matter are conserved through a variety of systems.

I am unsure what verb-subject agreement is intended between energy/matter and flows/cycle(s). Clarification is needed. Perhaps they intend to say:

### (E) analyze and explain how energy and matter cycle through systems, and how these are conserved through a variety of systems.