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This past week my e-mail in-box has been filling up with messages about Utah.

“Have you seen what’s going on there?” people are asking me. “They are trying to write climate denial

into the standards!”

If you believe the media ([Newsweek](#) [7], [The Salt Lake Tribune](#) [8], and even my most beloved gossip blog, [Jezebel](#) [9]), the state of Utah is considering the adoption of middle school science standards that would teach sixth graders that the Earth’s climate is staying relatively constant, thus denying climate change.

People are alarmed about the possibility. Understandably so, since there was reportedly [pushback](#) [10] against the inclusion of climate change in a previous draft of the standards. People want to know what NCSE is going to do about it.

What’s going on in Utah sounds terrible. And it would be terrible. If it were true.

But guess what? It’s not true.

Someone—preferably a reporter—should have read the standards and carefully obtained expert opinion about them before getting in a lather. Fortunately, that’s what we do here at NCSE, and so let me share with you what the standard actually says:

6.3.4 Construct an explanation supported by evidence for how the natural greenhouse effect maintains Earth’s energy balance and a relatively constant temperature. Emphasize how the natural greenhouse effect is necessary for maintaining life on Earth. Examples could include comparisons between Earth and the moon or other planets.

What this says, in effect, is that the “[natural greenhouse effect](#) [11]” helps Earth maintain temperatures hospitable for life, as compared to, say, Venus or Mars, where the greenhouse effect is just no help at all. (NASA has a pretty [good explanation](#) [12] of this.)

So let’s have a quick Q&A.

Is what the standard says wrong? No.

Is the standard claiming “Earth’s Climate Maintains a ‘Relatively Constant Temperature’” (as the Jezebel headline describes it)? No, it’s not. Climate and the greenhouse effect are two distinct but interacting phenomena. For a refresher, see the [EPA’s video](#) [13] explaining how the greenhouse effect relates to climate change.

Does the standard promote the idea that the climate is not currently changing? No.

Could the standard be misused to promote climate change denial? Probably, although it would be a stretch. But there’s probably no way to write a standard that couldn’t be misused.

So, if the coverage of climate change is mostly okay in these middle school science standards, can we go home and nap for the rest of the day?

Well, no. Although the climate change standards are okay, the evolution standards (in seventh grade science) are problematic, and that is where we need the most help right now.

What’s wrong with the standards addressing evolution?

First and foremost, they don’t mention evolution by name. Instead, they say “change in species over

time.” That’s not just awkward, it’s inaccurate. Moreover, they don’t address natural selection, whereas the equivalent section of the Next Generation Science Standards (NGSS) does. And since the standards in Utah’s “Change of Species Over Time” strand otherwise match the NGSS standards, it’s hard to avoid the conclusion that natural selection was deliberately omitted.

It looks to me like the reporters have picked up the wrong story: it’s evolution, not climate change, that’s under siege in Utah.

So what is the answer? Keep e-mailing us with your concerns—NCSE is the go-to place on these issues. Better yet, Utahns should voice their concerns directly to the state board of education.

If you are in Utah, you can review the [draft science standards](#) [14] and offer your [comments](#) [15] on-line. You will be asked, for the introduction and each strand in a grade level's standards, to recommend approving it as it stands, approving it with revisions, or rejecting it. You can enter a 1000-character comment to explain your recommendation. You can commend the standards that present the science correctly and forthrightly and offer suggestions for improving standards that are unclear or incomplete. And, of course, this is your chance to call for climate change to be presented in sixth grade instead of eighth grade and for evolution and natural selection to be presented properly in seventh grade.

And if you’re not in Utah? Do you have friends or family there? Let’s get busy!

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