

Read this excerpt from Understanding Climate Change, Grades 7-12. "Believing" in Climate Change. Highlight key ideas that resonate.

## **"Believing" in climate change**

As science educators, it is critical that we don't use the phrase *believing in climate change*. The *Oxford English Dictionary* defines a belief as "an acceptance that something exists or is true, especially one without proof." Our beliefs are personal and do not need to be proven to anyone.

The nature of science, on the other hand, is reproducible results. A concept in science is accepted if the same situation is repeated over and over again, with evidence collected that shows the same results. Only after repeatedly collecting evidence can we say whether the results support or do not support our initial predictions. If a study is published, we might say that we agree with the results of that study or accept the results of that study. If there are lots of replications and variations that all say the same thing, we might call the results a "fact," such as the fact that water freezes at 32°F or 0°C. We can agree with those facts. When there are numerous replications and numerous variations that all say the same thing, we might start talking about a theory or a law, such as evolution or gravity. In the case of climate change, there are countless reputable studies that show the Earth is warming, causing changes in our climate. We don't believe in climate change, we accept the results of tens of thousands of studies and papers by reputable scientists that show our Earth is warming, resulting in a changing climate.