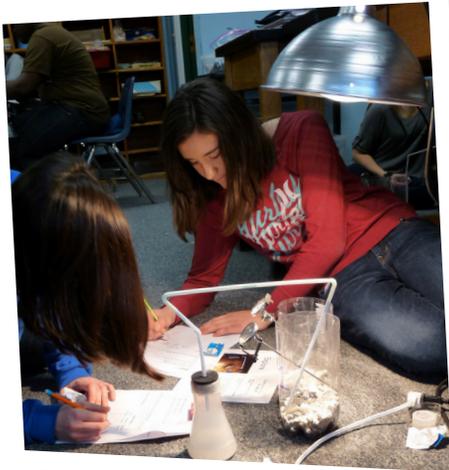


Modeling Climate Science



Guiding question: What is the relationship between greenhouse gases and our planet’s average temperature?

This workshop helps students develop their understanding of factors that have caused a rise in global temperatures over the past century with the emphasis on the major role that human activities play. It incorporates NGSS practices and core ideas in an engaging hands-on lesson that allows middle school students the opportunity to collect evidence and formulate a claim about the relationship between greenhouse gases and temperature.

Students test and compare bottle models of two “Earths” — one without CO₂ and one with added CO₂ — to determine the changes in temperature over time. After a brief scientist meeting to discuss their claims and a basic overview of greenhouse gases, students identify other climate regulation variables in their models, plan and carry out a new investigation using the two Earths, and formulate additional claims relating to climate regulation and human activity. Skills such as asking questions, specifying relationships between variables, and clarifying arguments and models are highlighted in this workshop.

The workshop helps set the stage for deeper exploration of the disciplinary core idea that human activities are a major factor in the current rise in the Earth’s mean surface temperature and that reducing the level of climate change depends on the understanding of climate science, engineering capabilities, and other kinds of knowledge, such as understanding of human behavior and on applying that knowledge wisely in decisions and activities.

VEEP offers this workshop for grades 6–8 as either a stand-alone workshop or a kick-off lesson for our newly developed climate change curriculum, *Climate Change: Understanding and Engagement*.

Contact us at info@veep.org or 802-552-VNRG if you are interested in learning more or bringing this workshop into your class.

