

Calculator Provides Insight on Impact of Climate Change

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Arithmetic can be helpful in understanding climate change. Have you ever wondered how global temperatures are related to carbon dioxide, or how much we'd have to cut carbon dioxide emissions to stop global warming? I created a simple carbon dioxide and climate calculator to do the math: It's online at <http://tinyurl.com/climate-arithmetic>.

The calculator lets you specify changes in future emissions and see how much effect they have on carbon dioxide. Climate warms when extra heat is applied and cools when heat is taken away. Past changes in climate (colder during the Ice Age, warmer in medieval times) show that the Earth's temperature changes by about 1.5 degrees Fahrenheit for each watt of heat added to or subtracted from each square meter of the Earth. The carbon-climate calculator uses this arithmetic to estimate future warming for whatever emissions you specify. Winds mix carbon dioxide across the world, so one of the things you'll learn when you try out the calculator is that we're all in this together: It will take serious commitment by all countries to keep carbon dioxide in check.

The Fort Collins Sustainability Group has produced a nice five-minute video that shows how to use the carbon and climate calculator. Watch the video at <http://tinyurl.com/carbon-climate>. Then use climate arithmetic to try your hand at keeping global warming below 2 degrees Celsius, the generally accepted level required to "avoid dangerous interference with the climate system."

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