

### 400 ppm or Not?

Scientific Literacy is important because STEM students should possess the ability to analyze and evaluate scientific evidence and explanations. This activity will improve your aptitude for scientific reasoning and critical thinking.

#### Part I- Research:

A. Now that you have completed the *Why is Scientific Literacy Important* lecture, you will begin to investigate Climate Change and how CO<sub>2</sub> is measured.

Log onto [www.mathbench.umd.edu](http://www.mathbench.umd.edu). Scroll down and select the Climate Change Module on the left side of the page. Scroll down to the Keeling Nails Carbon Dioxide link. Complete each section of the module under the Table of Contents on the left side of the page.

B. You will also investigate how Michael Mann and his team developed the "Hockey Stick" graph measuring the change in the Earth's temperature over time.

Log onto [www.mathbench.umd.edu](http://www.mathbench.umd.edu). Scroll down and select the Climate Change Module on the left side of the page. Scroll down and select the Michael Mann Builds a Hockey Team link. Complete each section of the module under the Table of Contents on the left side of the page.

#### Part I- Article Review

Read the article, Northern Hemisphere Cracks 400 ppm CO<sub>2</sub> for Whole Month for First Time, by Brian Clark Howard.

Then answer the following questions:

1. According to the article, what are the implications of the CO<sub>2</sub> levels reported in the article?
2. How did the modules on the history of measuring CO<sub>2</sub> levels and the change of the Earth's temperature over time inform your understanding of the information contained in the report?
3. Now that you are knowledgeable about Climate Change, has your personal opinion about this scientific concept changed or remained the same? Explain.
4. How does your knowledge and understanding of Climate Change impact your personal decision-making process as it relates to a possible career in sustainable energy or a "green" job?