**Science of Global Warming**

**In Five Steps**

**Scientists say the planet is warming because of human activities, namely the greenhouse effect from carbon dioxide released to the atmosphere when burning fossil fuels. But, how do we know? How do scientists know?**

**Background:** You should have already read or received an overview of the greenhouse effect.

Your instructor will assign you one of the questions below. Your group is to research your assigned question via the internet. You might want to start by simply typing the exact question into your favorite search engine and reading through credible sites. Internet sources that are generally more reliable on science include educational institutions (i.e. “edu” in the web address), federal government organizations and agencies (i.e. “gov” in the web address), and scientific societies. The National Academy of Sciences (nas.edu with journal pnas.org) or relevant scientific societies for a particular discipline are recommended (for example, the American Chemical Society, acs.org, for chemistry). For climate science, you may also want to consider scientific reports from international organizations such as Intergovernmental Panel on Climate Change (ipcc.ch), World Meteorological Organization (wmo.int), or the United Nations (un.org). Peer-reviewed scientific journal articles are a good source of info but usually too technical for most undergraduate students.

Email a summary of your findings to your instructor. Indicate the specific web links used. Include specific references to paragraphs or figures from the link or links that support your conclusion.

1. What makes a greenhouse gas a greenhouse gas?

2. Is carbon dioxide a greenhouse gas?

3. Is the amount of carbon dioxide in the atmosphere increasing? How do we know?

4. Is CO2 increasing because of human activities?

5. Is global average temperature increasing? How do we know?