

# Tragic flaws of macbeth



Climate Change Project State of Knowledge (From US EPA 2007) Scientists know with virtual certainty that: \* Human activities are changing the composition of Earth's atmosphere.

Increasing levels of greenhouse gases like carbon dioxide (CO<sub>2</sub>) in the atmosphere since pre-industrial times are well-documented and understood. \* The atmospheric buildup of CO<sub>2</sub> and other greenhouse gases is largely the result of human activities such as the burning of fossil fuels. \* An unequivocal warming trend of about 1.0 to 1.7°F occurred from 1906-2005.

Warming occurred in both the Northern and Southern Hemispheres, and over the oceans (IPCC, 2007). \* The major greenhouse gases emitted by human activities remain in the atmosphere for periods ranging from decades to centuries. It is therefore virtually certain that atmospheric concentrations of greenhouse gases will continue to rise over the next few decades. \* Increasing greenhouse gas concentrations tend to warm the planet.

What's Very Likely The Intergovernmental Panel on Climate Change (IPCC) has stated " Most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations" (IPCC, 2007). In short, a growing number of scientific analyses indicate, but cannot prove, that rising levels of greenhouse gases in the atmosphere are contributing to climate change (as theory predicts). In the coming decades, scientists anticipate that as atmospheric concentrations of greenhouse gases continue to rise, average global temperatures and sea levels will continue to rise as a result

and precipitation patterns will change. What's Not Certain Important scientific questions remain about how much warming will occur, how fast it will occur, and how the warming will affect the rest of the climate system including precipitation patterns and storms. Answering these questions will require advances in scientific knowledge in a number of areas: \* Improving understanding of natural climatic variations, changes in the sun's energy, land-use changes, the warming or cooling effects of pollutant aerosols, and the impacts of changing humidity and cloud cover.

\* Determining the relative contribution to climate change of human activities and natural causes. \* Projecting future greenhouse emissions and how the climate system will respond within a narrow range. \* Improving understanding of the potential for rapid or abrupt climate change. Source : <http://www.epa.gov/climatechange/science/stateofknowledge.html>

Over the next 5 months, November ??" March, you will be collecting temperature data. You will need to record the temperature for each day for the Lewisburg area. Our classroom now has a professional weather station installed outside.

Each day you have science class (every other weekday) you will need to check the outside temperature reading from this weather station. This temperature should then be recorded and labeled by date in your notebook. If you miss any school, it will be your responsibility to get the missed data from a fellow student or your teacher. Your objective /assignment: Collect temperature data in a daily notebook.

Create a project that explores the causes and effects of climate change.

Hypothesize what / who is causing climate change. Research to support your hypothesis.

(Make sure you give credit to your sources of research AKA

citations)Example projects: Graphs and charts / a displayI-Movie / Video

weather report like a Weather Channel specialPower point slide show / class

presentationA written report including graphs and figuresCreate a website

with graphs and figuresOther ideas.... see Mr. WagnerRules: Projects

completed individually or groups of 2 students. In addition to your project, you must hand in your individual temperature data.

If you are absent the day you are to present your project to class, you will present the day you return to school. Due dates: December 2nd hand in a written hypothesis. What is causing climate change, what effect will it have Hand in written description of what format your project will be (if you are working with a partner you must tell me on this date by handing in one description with both names on it.

)April 16th / 17th Final projects and notebooks due. Grading / evaluation:

Notebook / data complete 20 pointsBoth due dates met on time 10

pointsProject has hypothesis 5 pointResearch supports your hypothesis and it cited 15 pointsShows effort / neat work. 10 points