

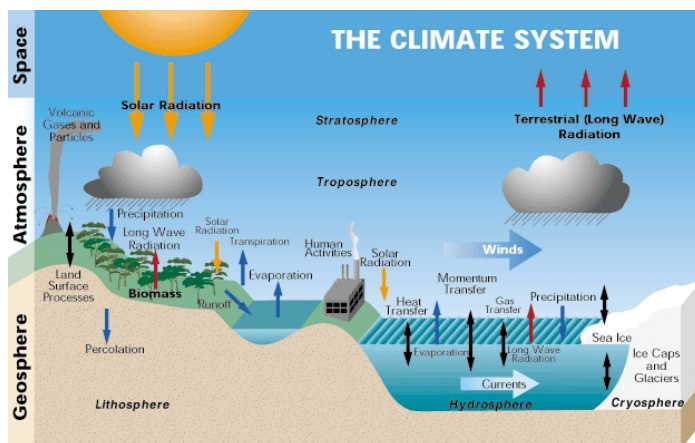
The Dummies Guide to Climate Science

Written by Administrator

Friday, 10 June 2011 00:00 - Last Updated Sunday, 22 July 2012 14:07

[Also See Nic Marks Happy Planet Index - A Positive Vision of Our Environmental Future](#)
National Geographic ~ [Understanding the Green House Effect](#)

[Follow Eco Preservation Society on FaceBook and Twitter](#)
[Videos and Articles on Costa Rica Eco Travel](#)
[Plan your Costa Rica Travel Adventure / Volunteer Application Form](#)
[More Environmental Social Media](#)



by [Kevin Peterson](#) , President
Eco Preservation Society

During the course of our research on the issues surrounding climate science and climate change, it became clear that the scientific community has done a poor job of explaining what we actually know and what we do not know about climate change. I have written this brief explanation to provide the non-scientific community with a simple explanation of what is clearly understood, what is probable and what we do not know for sure.

Fact: The Earth and Moon receive the exact same intensity of solar radiation.

The Dummies Guide to Climate Science

Written by Administrator

Friday, 10 June 2011 00:00 - Last Updated Sunday, 22 July 2012 14:07

The agreed upon average Earth Temperature is 15C (59F) The Average Moon Temperature is -153C (-247F) at night & 107C (212F) during the day.

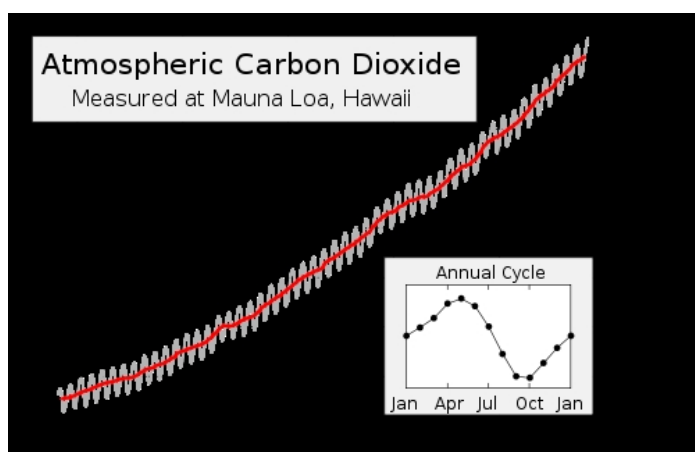
Question: What accounts for the difference?

Answer: The Earth's Atmosphere

Qualification: 99.1% of the earth's atmosphere is Nitrogen and Oxygen. These two gases have nearly no effect on moderating earth's climate system. This conclusion is based on basic chemistry and these findings can be reproduced in the laboratory. In other words, if you were to put an atmosphere on the moon made up of 100% Nitrogen and Oxygen that atmosphere would have almost no effect on the temperature of the moon.

Question: How do we explain the difference between the temperature variations between the Earth and Moon if Oxygen and Nitrogen play no role in maintaining a stable climate?

Answer: Green House Gases that make up less the 1% of the atmosphere are almost entirely responsible for creating habitable climate on earth. In other words, only a very tiny portion of our atmosphere regulates temperature on earth and we are tampering with that very small band of gases. This is known as a fact!



What we do not know: We know for a fact that Green House gases moderate climate on earth. We know for a fact that Green House Gases are increasing their concentrations in the atmosphere. We know for a fact that we are playing a role in altering the composition of this band of gases in the atmosphere. What we cannot precisely quantify is exactly how much of the elevated concentrations are due to man and how much of the increase is natural. Science tells us that the probability is quite high that we are having a significant impact, but there is no way of

measuring this accurately with today's technology.

Want more proof? Compare Venus and Mercury! Venus is twice as far from the Sun as Mercury. Yet Venus is twice as hot as Mercury. Why? Green House Gases! It is believed that Venus has roughly the same amount of Carbon as Earth. Most of Earth's Carbon is in the ground; most of Venus's is in the atmosphere, thus the extreme temperatures.

Should we believe or not believe? Whether one believes in climate science or not is not the right question . Climate Science is NOT a religion and it is not important one way or the other for one to have a faith-based position regarding Climate Science. What is important is to understand the risk and to manage that risk appropriately

This is the debate that Progressives and Conservatives should be having!

Science tells us that the probabilities of catastrophic climate change are increasing daily. We need to take appropriate actions to reduce these risks, the same way we take appropriate actions to minimize any other identifiable risks (i.e. Terrorism, Economic Collapse, Car Accidents).

No one "believes" that a car wreck is imminent when one gets into a car. One would never get into your car if they truly believed they were about to get into a wreck. Just because one does not believe a wreck is imminent does not justify canceling the car insurance. People purchase insurance not because they necessarily believe that something catastrophic is about to happen, but because they recognize that there is a level of probability that catastrophe could occur. Thus the purchase of insurance is considered a rational thing to do, even though you don't necessarily believe that a catastrophic outcome is imminent.

Assessing the probability of climate change is the more mature approach to the debate than taking a faith based position like "believing" or "not believing" in Climate Science. Faith based arguments one way or the other do not facilitate rational public policy.

Once we come to this common understanding, we are then in a position to have a rational conversation about Climate Change. What we need to be discussing is the probability of catastrophe and what are the appropriate things that we should be doing as a society to manage that risk.

We hope this helps with your understanding of Climate Science. We look forward to your comments.

The Dummies Guide to Climate Science

Written by Administrator

Friday, 10 June 2011 00:00 - Last Updated Sunday, 22 July 2012 14:07

Also See:

[Costa Rica is the Happiest Place on Earth. Here's Why](#)

[Seth Godin on the tribes we lead](#)