

## Top 10 Things to Know about Global Warming

1. Global warming is caused primarily by carbon dioxide from burning coal, oil, and natural gas.
2. Earth's overall temperature has risen 1 degree F in last 100 years and is projected to rise 3-10 degrees F in next 100 years.
3. There is scientific consensus that global warming is real, is caused by human activities, and presents serious challenges
4. There is a difference between weather and climate
5. The ozone hole does not cause global warming.
6. Global warming will have a significant impact on people and nature.
7. Sea level has already risen due to global warming and is projected to rise much more
8. Saving energy and developing alternative energy sources would help
9. An international agreement known as the Kyoto Protocol has been negotiated to reduce greenhouse gases, but the US is not participating
10. Protecting the world's climate by stabilizing atmospheric concentrations of greenhouse gases will require enormous reductions in current emissions

## **What Should Guide Us to Best Reach Students about Global Warming?**

**Concentrate on the following building blocks of inquiry based learning that is important for elementary students.**

### **A. Ability to form basic questions:**

1. Do simple investigations of nature and the environment
2. Locate and collect simple information on nature
3. Be aware of the need to use reliable information

### **B. Ability to understand definitions:**

1. Identify changes and differences in the physical environment
2. Understand basic definitions of –
  - a. Atmosphere
  - b. Hydrosphere
  - c. Lithosphere
  - d. Biosphere
  - e. Cryosphere
3. Identify characteristics and changes in matter such as in solids and gases

### **C. Ability to recognize similarities and differences:**

1. Differences among wide range of living organisms
2. Grasp the basic concept of habitats and that organisms relate to each other and their surroundings
3. Recognize that plants and animals have different characteristics, many of which are inherited

## Why is Global Warming so Controversial?

- A. Some people insist that this is just and unproven theory. Special interests groups (including the fossil fuel industry) continue to cast doubt on this
  
- B. Climate change can be confusing and does not lend itself to sound bites. Some people believe that global warming is cause by CFC's
  
- C. Scientists have trouble communicating all this to lay audiences. "Aerosols" are atmospheric particles, but many people think this is an "aerosol spray can."
  
- D. Biggest reason – special interest groups have mounted an active campaign to raise doubts and create confusion. Known as "contrarians," they create confusion among the press, policymakers, and the public. They give the impression that when it comes to climate change, "the jury is still out." In truth, the train as already left the station.