

Climate Change Presentation

Intermediate Slide Show Summary

1. Natural Process
 - a. Always been changing
 - b. Ice covered large part of Earth 18,000 years ago
 - c. Changing faster now, may be human activities
2. North and South Poles
 - a. Temps. rising faster than rest of planet
 - b. Losing ice
 - c. More open ocean
 - d. Glaciers melting
 - e. Ice shelves disintegrating
3. Tropical Regions
 - a. Drought
 - b. Expansion of desert
 - c. Deforestation
 - d. Overgrazing
4. Local Climate
 - a. Will not be as dramatic
 - b. Summers warmer, drier, longer
 - c. Winters warmer, wetter
 - d. Effects now – MPB
 - e. Increase in forest fires
5. Causes of Climate Change
 - a. Air pollution
 - b. Carbon Dioxide
 - i. Human activities – burning of fossil fuels
 - ii. Natural activities – forest fires, volcanoes
 - c. Methane
 - i. Human activities – cattle/feedlots and buried garbage
6. Greenhouse Gases (GHGs)
 - a. 5 different gases, CO₂ and methane most prominent
 - b. GHGs naturally blanket the Earth
7. Greenhouse Effect
 - a. Green houses as an example
 - b. Sun's energy
 - c. Adding GHGs upsets natural balance
8. Nature's recycling methods
 - a. Photosynthesis
 - b. Carbon sinks
9. Fossil Fuels
 - a. Where do fossil fuels come from
10. Climate Change and Our Forests
 - a. Colder climates, could expand forest growth
 - b. Warmer, drier forests may change to grasslands
 - c. Susceptible to pest damage

- d. More frequent and intense
 - i. Wildfires
 - ii. Drought
 - iii. Floods
 - iv. Storms
11. Climate Change Effects
- a. Environment
 - i. Forests
 - ii. Plants, animals
 - iii. Watersheds, fish
 - b. Communities
 - i. Snowpack, water supply
 - ii. Roads and bridges
 - iii. Forest and urban interface areas
12. How Can We Help
- a. Water
 - b. 4 R's and 1 C
 - i. Recycle, reduce, reuse, re-think, compost
 - c. Food
 - d. Anti-idling
 - e. Trees
 - f. What else?
13. Conclusion
- a. Learn how our planet works
 - b. Take notice of our environment
 - c. Learn how to live without making a mess

Background Information:

North and South Poles

Sea ice is 24% below the 1979 – 2000 historical averages

Greenhouse Gases

Methane remains 9 – 15 years in the atmosphere, 20 times more effective at trapping heat than CO₂, nearly one half the world eats rice and rice paddies contribute 13% of the global methane emissions

Carbon Dioxide is emitted naturally through the carbon cycle and human activities; CO₂ is 35% higher in concentrations since the Industrial Revolution in the 1700s

The Greenhouse Effect

The Earth receives energy from the sun and then radiates much of this energy back toward space. However, certain gases in the atmosphere, called greenhouse gases, absorb some of the outgoing energy and trap it in the atmosphere. This "greenhouse effect" occurs naturally, but human activities have substantially increased the amount of greenhouse gases in the atmosphere, causing the Earth to trap more heat. This in turn is changing the Earth's climate.