

## *Environment*

- in 1992, 1700 of the world's most important environmental scientists said:
  - humans and the environment are on a collision course
  - if not checked, many of our current practices will put the future at risk
  - we are altering the plant and animal kingdoms so much that it may destroy our own ability to sustain our current way of life
  - we need to change or else...
  
- it is believed that we must develop a **sustainable lifestyle**
- we must meet today's needs without destroying the future's ability to meet their needs
- CDNs have looked to the gov't to make changes, and historically, they have fallen far short

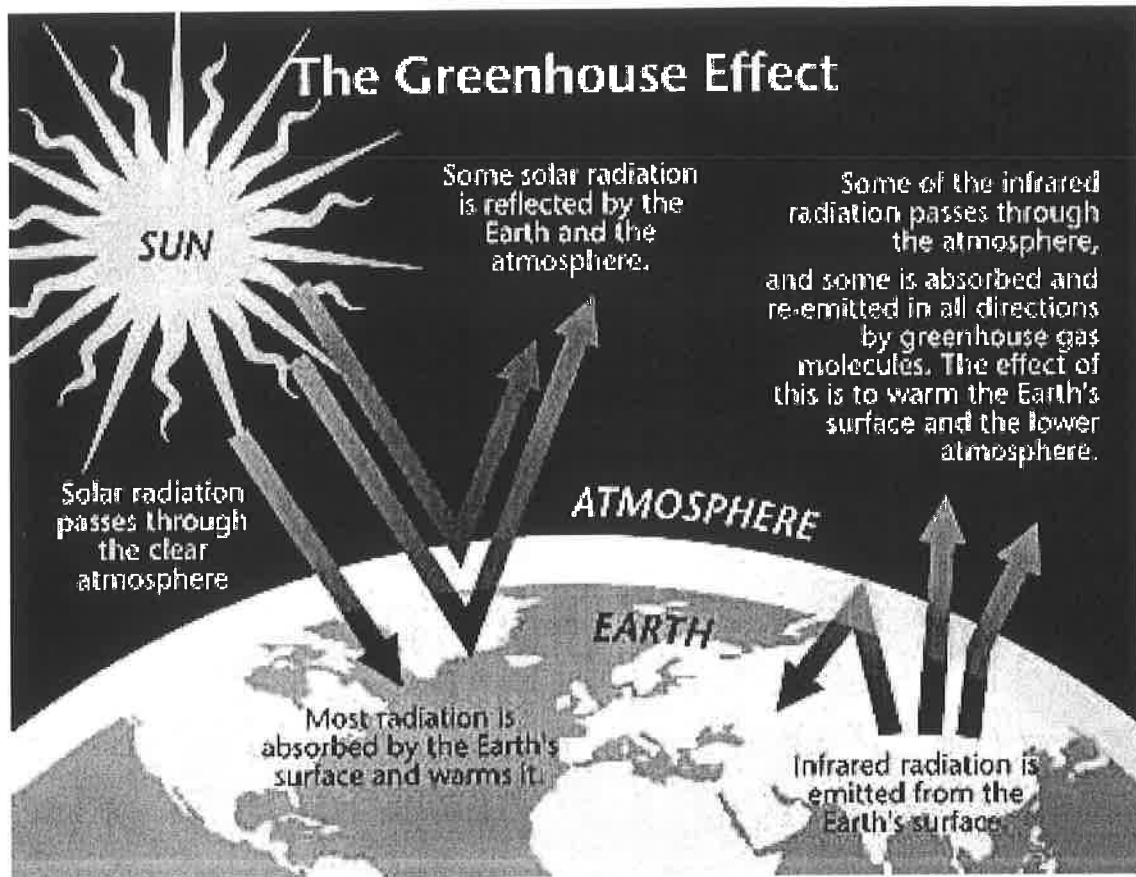
## *Ozone Layer*

- ozone is a special gas (O<sup>3</sup>)
  - it is the **ONLY** gas that can block ultraviolet radiation
    - UV rays cause skin cancer, and damages plant and animal species
      - plankton are the most in danger
      - they are fundamental to the food chain!
  
- in the 1980s, studies were showing that the ozone layer was beginning to thin above certain parts of the world
  - the poles... where the icecaps are
  - as much as 60% has disappeared over Antarctica
  
- well, what is destroying the ozone?

- CFCs (chlorofluorocarbons) have done about 80% of the damage
  - chemicals which are used in air conditioners, foams, solvents, and aerosol spray bottles
  - been widely used since the 1930s
  - one cubic centimeter of CFCs can deplete over 500 cubic meters of ozone
- the UN has tried to stop countries from using them, and have met some success
  - industrialized nations agreed to cut their CFC use (known as the **Montreal Protocol**)
  - the problem is that developing countries still use them

### *Greenhouse Effect*

- the gasses of the atmosphere naturally trap heat from the sun which is reflected off the earth's surface
  - this warmth has helped life to survive
- since the industrial revolution, people have begun to pollute at unprecedented levels
  - the burning of fossil fuels (coal, wood, gas, etc) has dramatically increased the amounts of CO<sub>2</sub>
- some scientists say that this is causing **global warming** due to a greenhouse effect
- there are some scientists who also think that this warming that is happening could be a natural cycle
- who really knows...
- here is how the greenhouse effect works:



- as carbon dioxide/methane are emitted from cars/smoke/etc. it filters up to the atmosphere
  - as the natural heat from the sun enters the atmosphere, it cannot reflect out again
    - this acts as a greenhouse by trapping heat, and thereby making the world hotter and hotter
  
- warmer weather brings with it a whole bunch of problems
  - droughts, forest fires, extinctions, skin cancer, etc.
  - however, it would also increase our growing season and move the tree line father up north
    - I guess it's all about what you value

- developed countries signed the **Kyoto Accord** in 1997
- arranged for members to cut their emission levels by 6% from 1990 levels – have until 2012 to do it...
- Canada has fallen far short of this and our emission levels have actually gone up
  - PM Harper is considering removing us from Kyoto all together
  
- well, can we actually make a difference?
- today, CDNs use 40 times more energy than a person in a developing world
- we also consume resources at a much higher rate
- however, if we all make a little change in our lifestyles, we can make a difference

### *Desertification*

- this is simply the spread of deserts worldwide
- keep in mind, deserts just mean “a place with very little precipitation”... it does not mean sand dunes and cow skulls
  
- the developing world is in the most danger of desertification
  - as more and more land is cleared for farming/cash crops, this disrupts natural vegetation
    - vegetation HOLDS moisture and nutrients in soil
    - with no natural vegetation, land is more susceptible to drought
    - with drought comes the growth of deserts