

Climate Change

- Climate = average atmospheric conditions (30+ years)
- Weather = atmospheric conditions right now
 - temp, precipitation, humidity, wind direction/speed etc.

Global Warming = is the observed rise in the earth's temperatures.

- Thought to be caused by greenhouse gases
- Human activities (anything that burns fossil fuels) adds greenhouse gases.

Greenhouse Gases

- Water vapour (H₂O)
- Carbon dioxide (CO₂)
- methane (CH₄),
- nitrous oxide (NO₂)
- Greenhouse gases absorb and re-emit heat back to earth.

Greenhouse effect = trapping of heat energy near Earth's surface.

- Without greenhouse effect, our earth would be VERY cold!! We do need it.
- Human activities have increased the effect

“enhanced greenhouse effect” (warming more)

Ozone

- There is a layer of O₃ in the stratosphere (15 – 50 km above earth) that shields us from ultraviolet radiation (UV).
- Sunblock has UV block in it. UV burns skin.
- CFC's (chemical) have depleted some ozone therefore more UV gets through.
- What if we keep depleting ozone layer?

Earth's Energy Budget

- We drew this on the chalkboard. It is basically Fig. 65 on page 328

Homework: Read p. 331 – 332 Do #3 on page 335

- Read p. 338 – 342 Do #1, 3-7 on page 342