

Fossil Fuels Summary Sheet

- Fossil fuels are heated and molecules burn, severing bonds between hydrogen and carbon, forming carbon dioxide and water vapour.
- This annually produces 6.3 billion metric tonnes of carbon dioxide.
- Net increase of 3.2 billion tonnes of carbon dioxide after the Earth absorbs almost half of it.
- It is a lead cause in global warming.
- Deforestation causes 2 billion metric tonnes of carbon dioxide to be released into the atmosphere annually.
- Canada produces 1000 tonnes of carbon dioxide every 56.3 seconds.
- You as a Canadian citizen, produce 16.6 tonnes per year.
- Carbon dioxide absorbs long wave radiation and re-emits back into the ground, which reduces the amount that escapes into space and heats Earth.
- The warmer planet evaporates more water, making more water vapour, and the water vapour absorbs long wave radiation better than carbon dioxide and heats up the planet more.

Evidence of Fossil Fuels being main contributor to increased CO₂

- It is estimated that 60% of photosynthesis is done in the ocean by microorganisms while only 40% is done in forests
- Deforestation started occurring on a large scale in the 1500s but CO₂ increased much later in the 1850s
- The industrial revolution was when humans first started burning fossil fuels for energy
- Almost intermediately after fossil fuels began to burn CO₂ levels started to rise dramatically