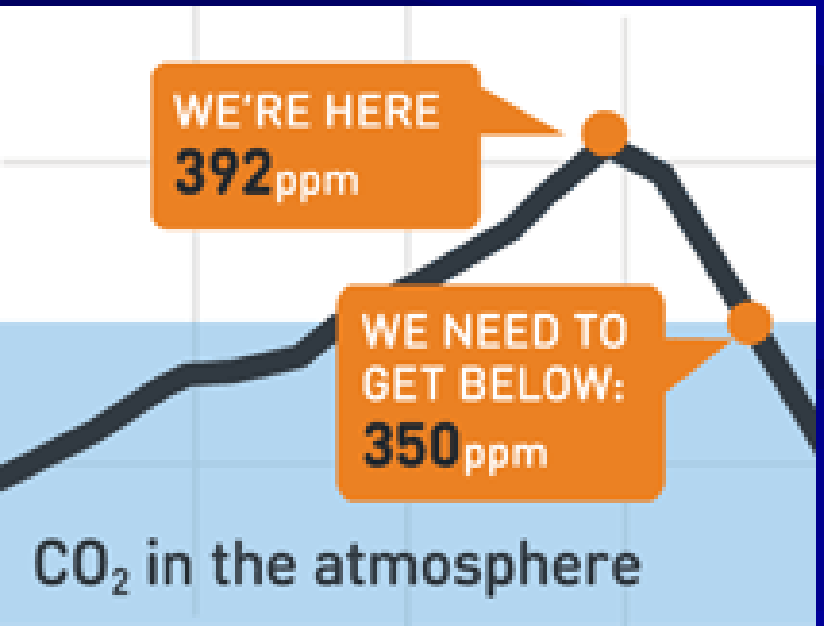
THE CONCENTRATION In ppm

CONCENTRATION IN PPM

- When the amount of solute in a solution is extremely small, the concentration can be expressed in ***parts per million (ppm).***



The CONCENTRATION IN PPM (parts per million) is the number of parts of solute in one million parts of solution.

- Thus, 1 ppm is equivalent to 1 g of solute in 1 000 000 g of solution or to 1 mg of solute in 1000 g or 1 kg of solution.

$$1\,\text{ppm} = \frac{1\,\text{g of solute}}{1\,000\,000\,\text{g of solution}} =$$

$$C(ppm) = \frac{1\,\text{mg of solute}}{1\,\text{kg of solution}}$$

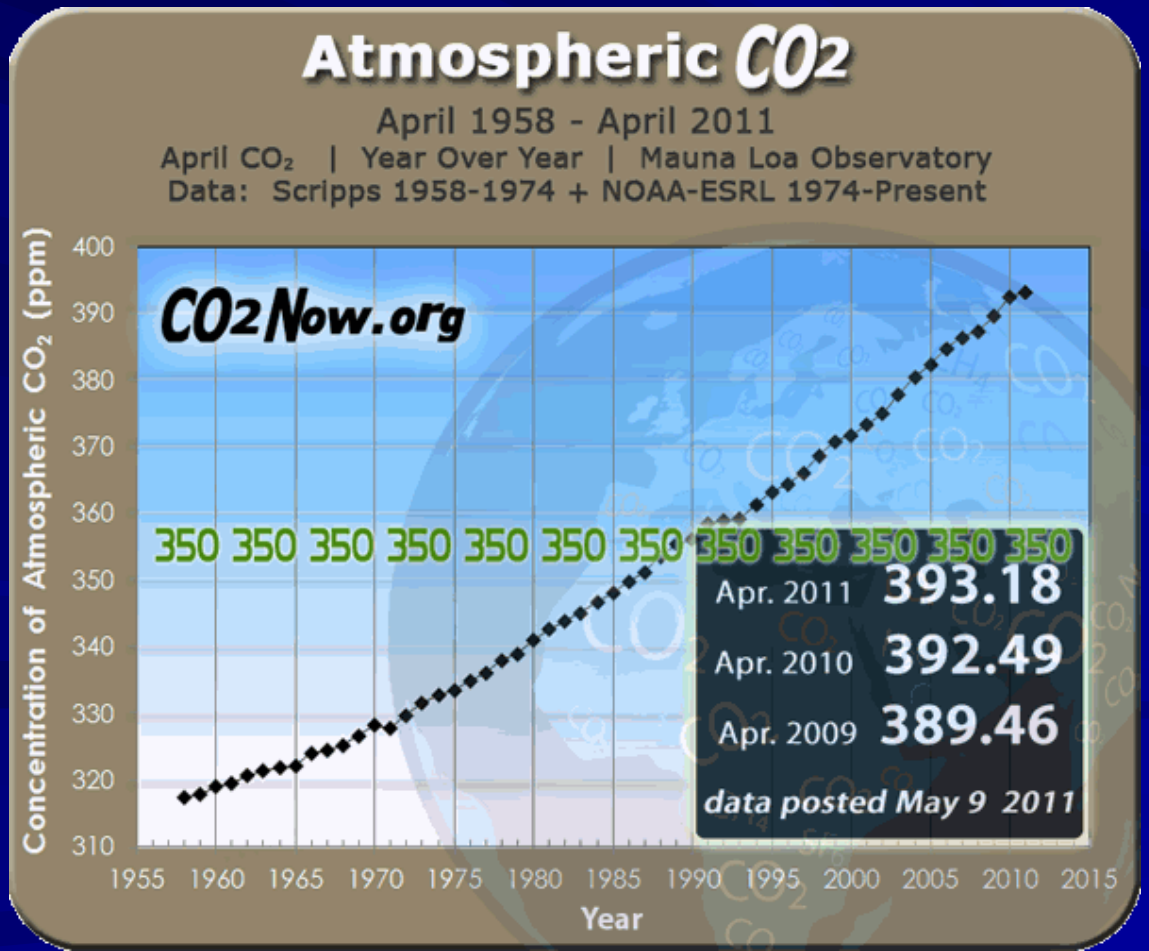
$$1\,ppm = \frac{1\,\text{mg}}{\text{kg}}$$

- In aqueous solutions, 1 ppm corresponds to approximately 1 mg of solute per litre of solution.
- Since 1000 g of water = 1L

$$1\,\text{ppm} = \frac{1\,\text{mg of solute}}{1000\ \text{g of solution}} = \frac{1\,\text{mg of solute}}{1\,\text{L of solution}}$$

$$1\,ppm = \frac{1\,\text{mg}}{\text{L}}$$

- ***The CONCENTRATION IN PPM (parts per million) is the number of parts of solute in a million parts of solution.***



- Water in public swimming pools usually contains about 1 ppm of chlorine, to control bacterial growth.

THE END

You are amazing!

Thank You