



**HAPPY EARTH
DAY!**



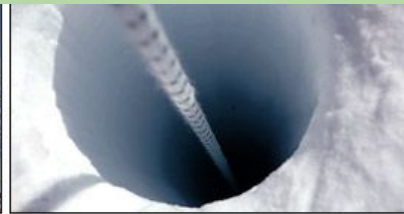
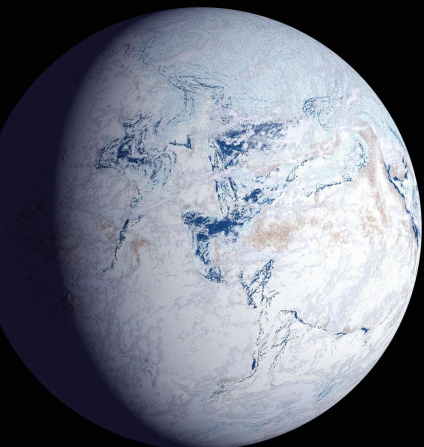
About us

- Sophomores at UMW
- Environmental science majors





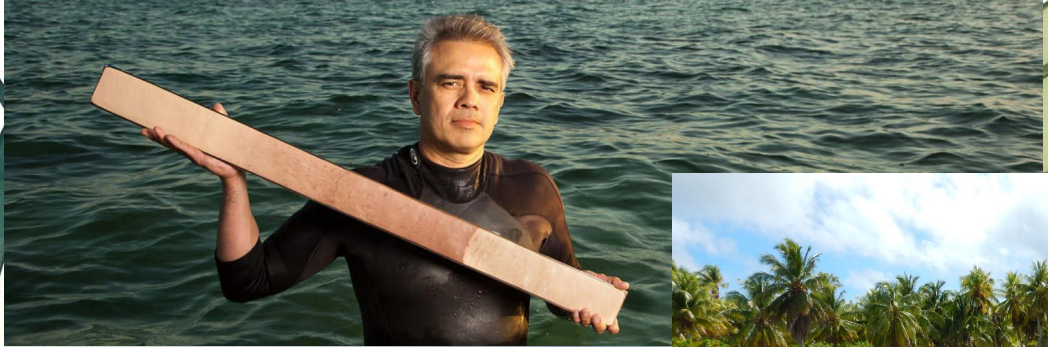
PALEOCLIMATE



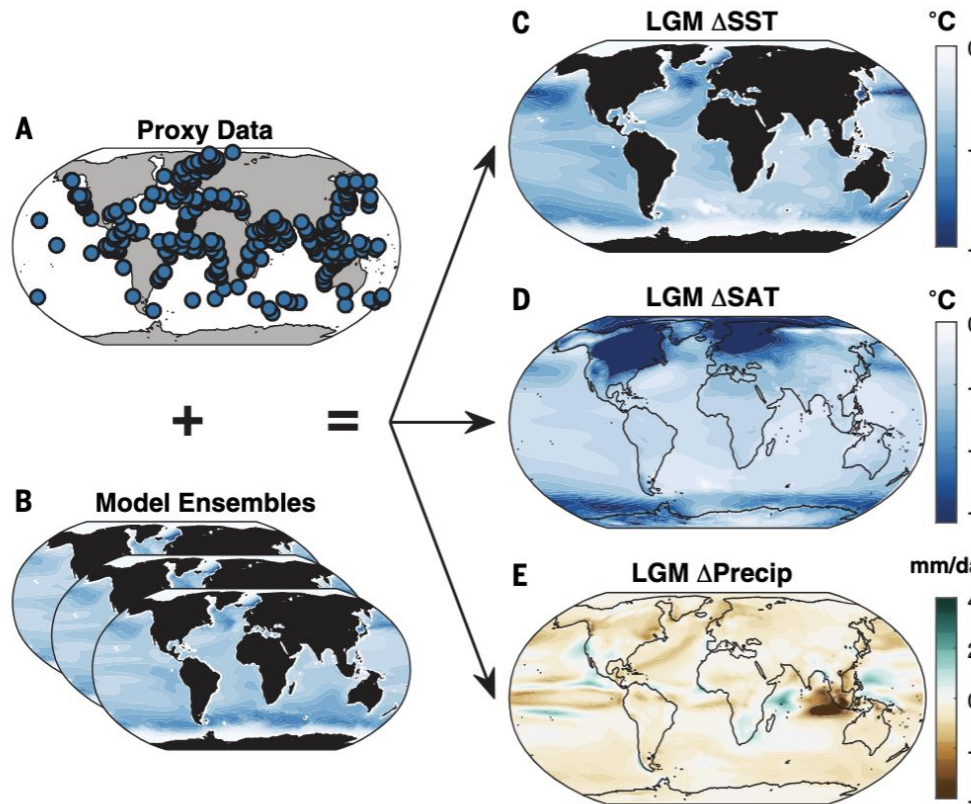
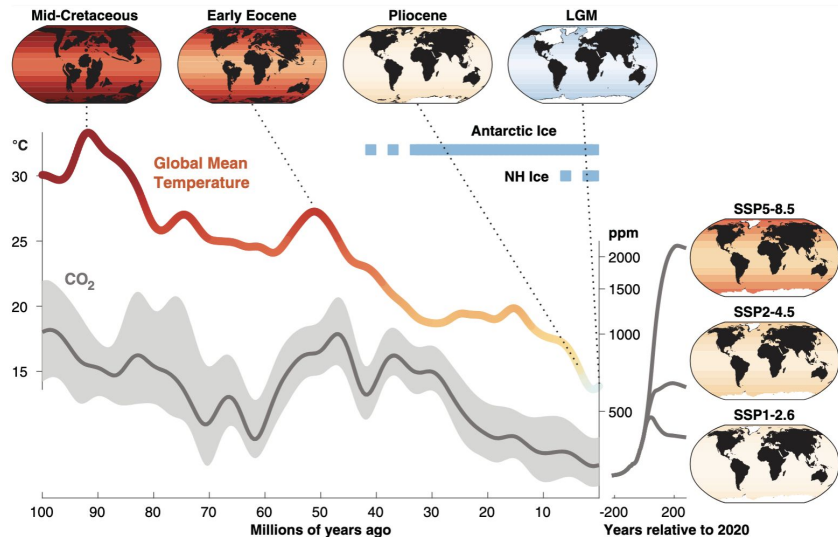
How do we know what Earth's climate was like?

Ice & sediment cores

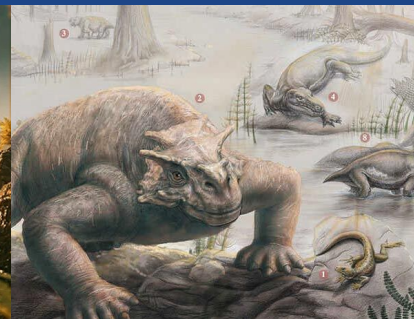
Proxies



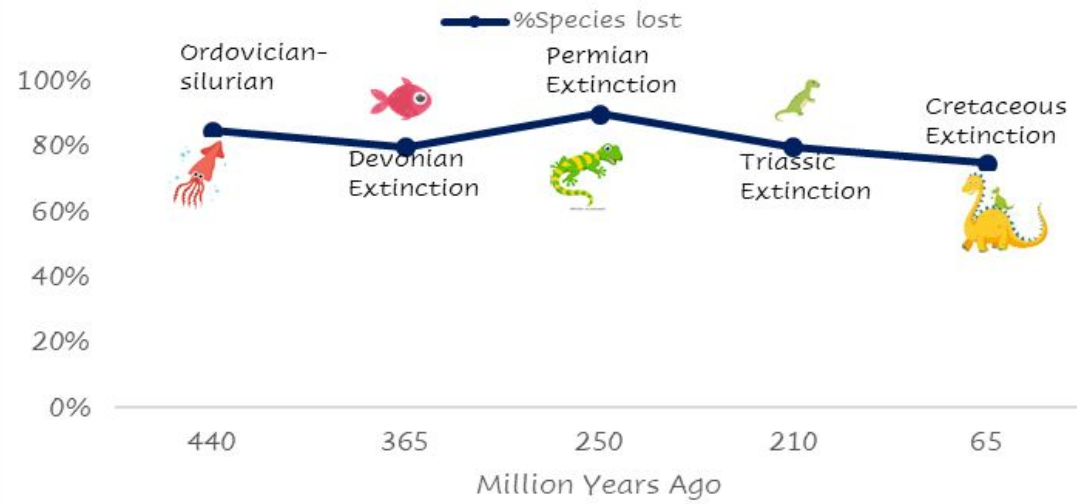
We can use the past to predict the future



HOW DID LIFE RESPOND?



5 Mass Extinction in the world -%Species lost



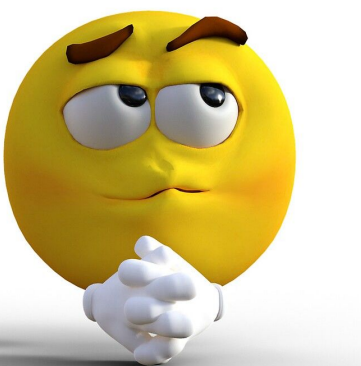
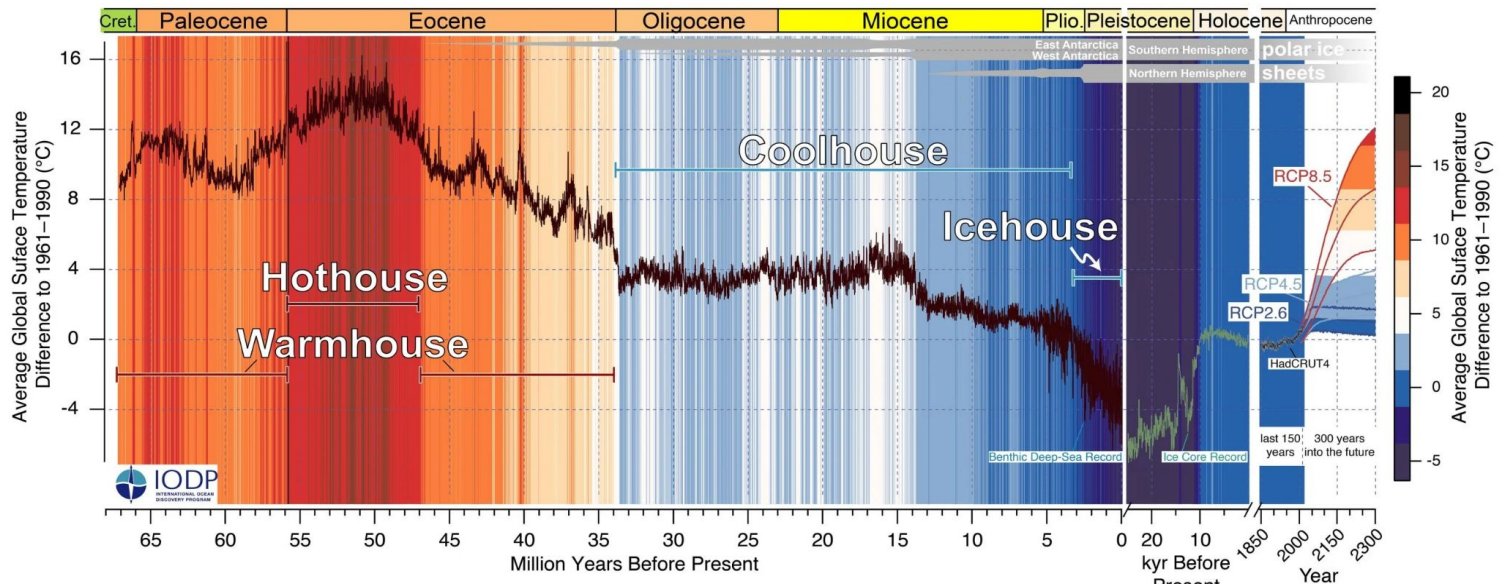



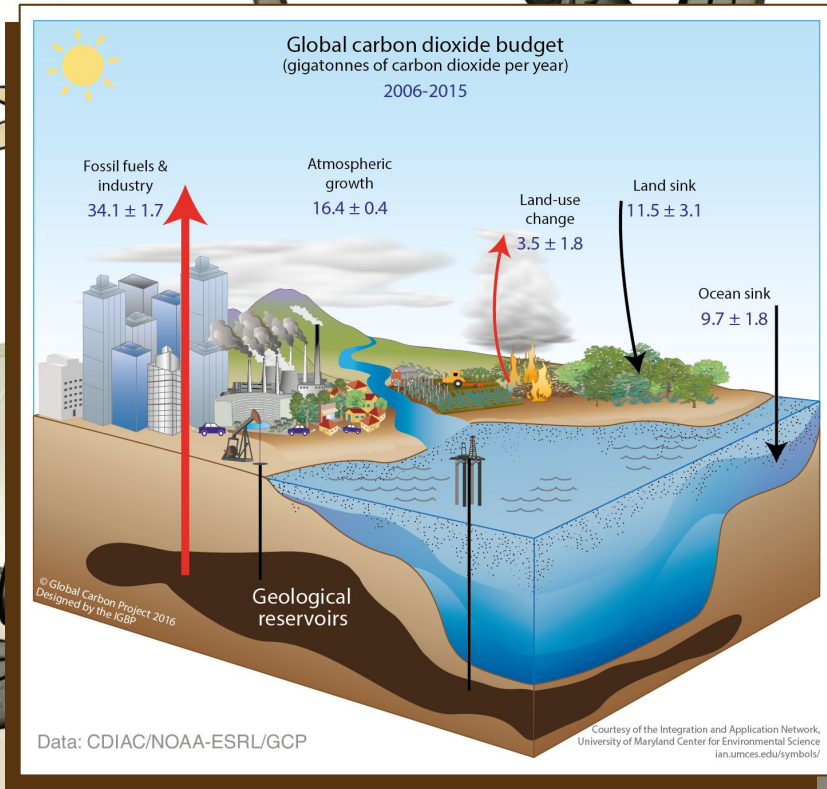
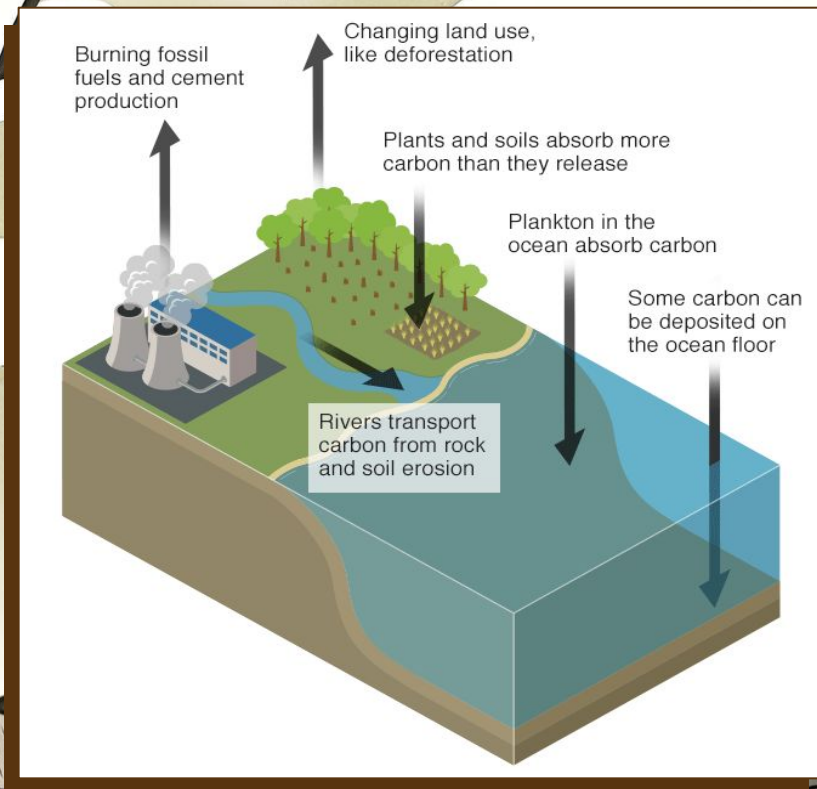
Figure out how our world has recovered from high atmospheric CO2 levels



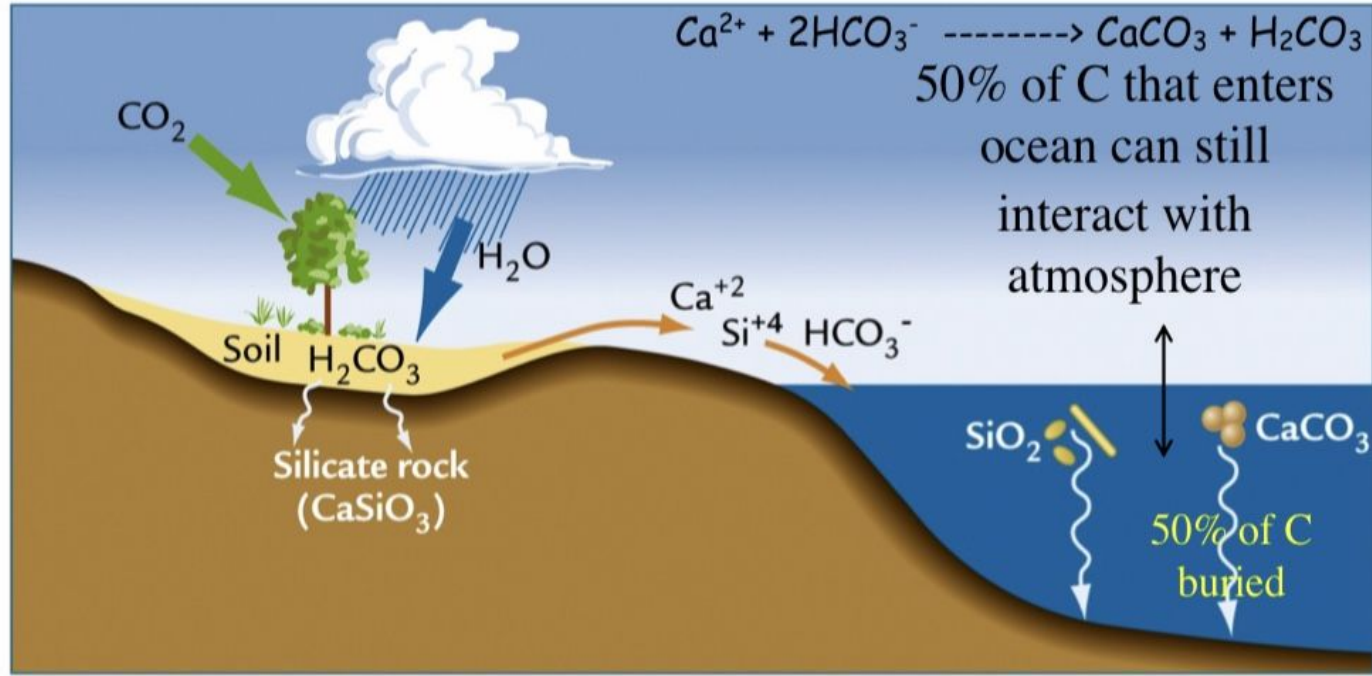


Why is
Carbon a
problem
now?

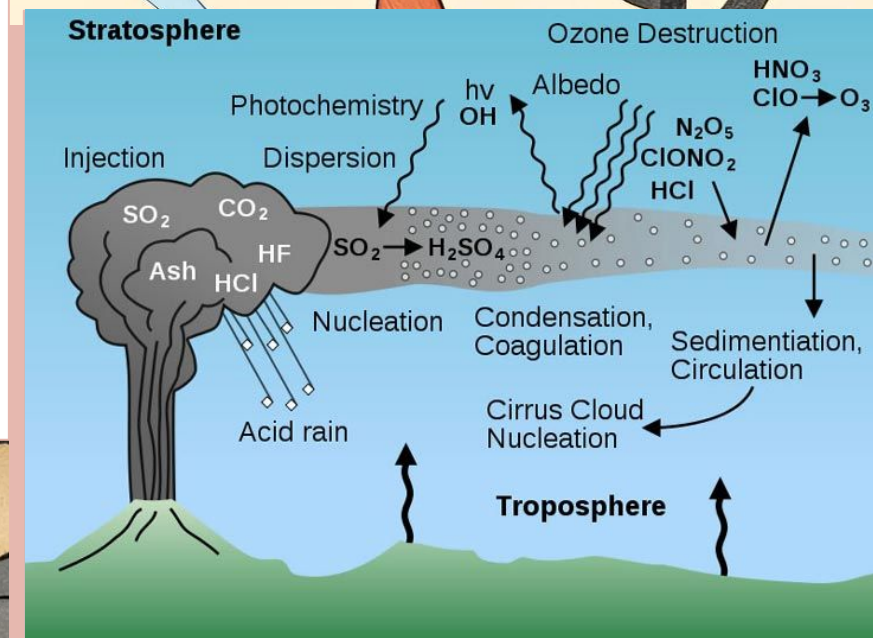
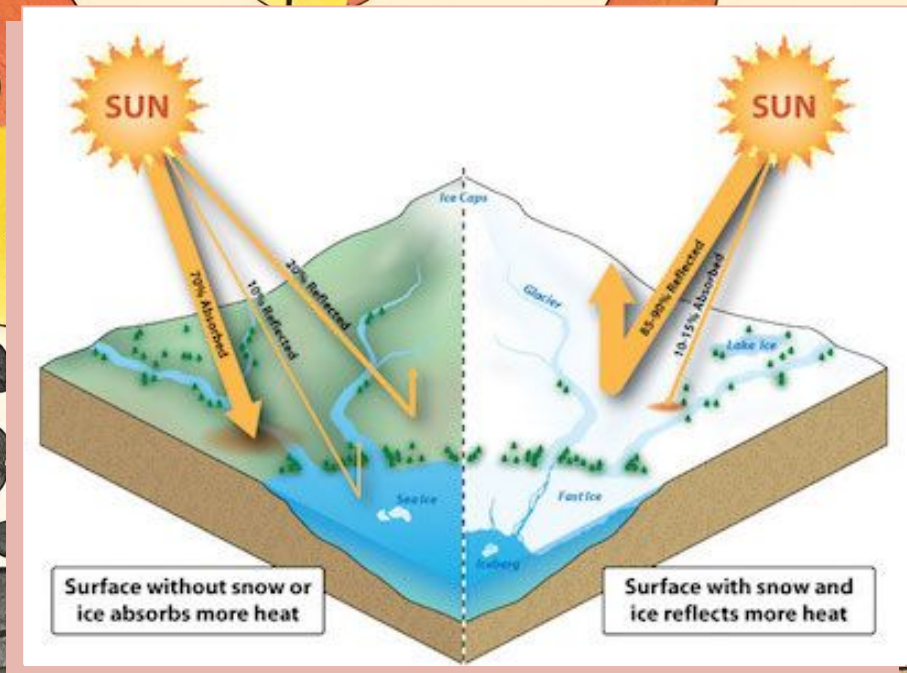
CO₂ and the Carbon Cycle




Natural Factors of Climate Change



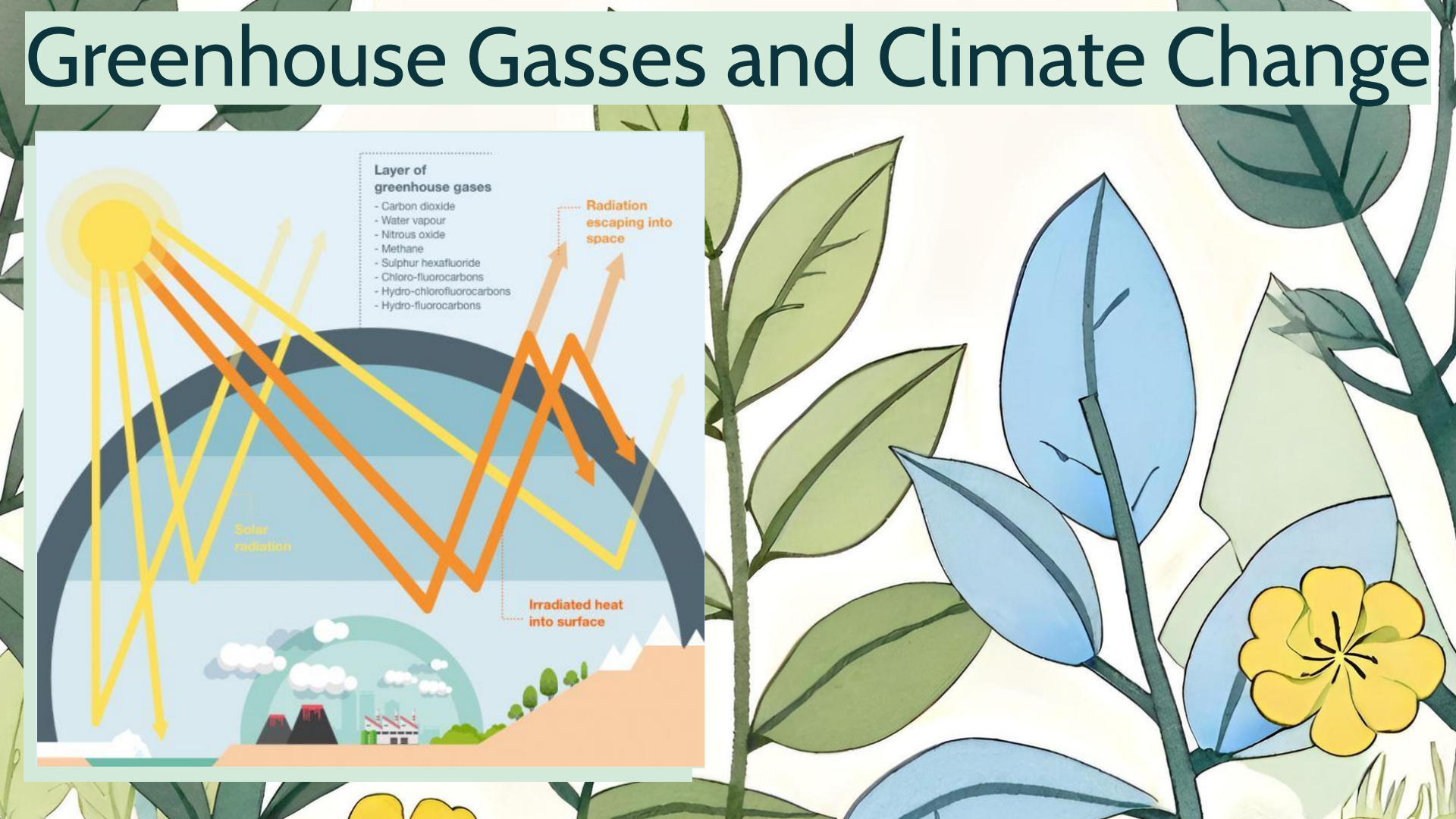
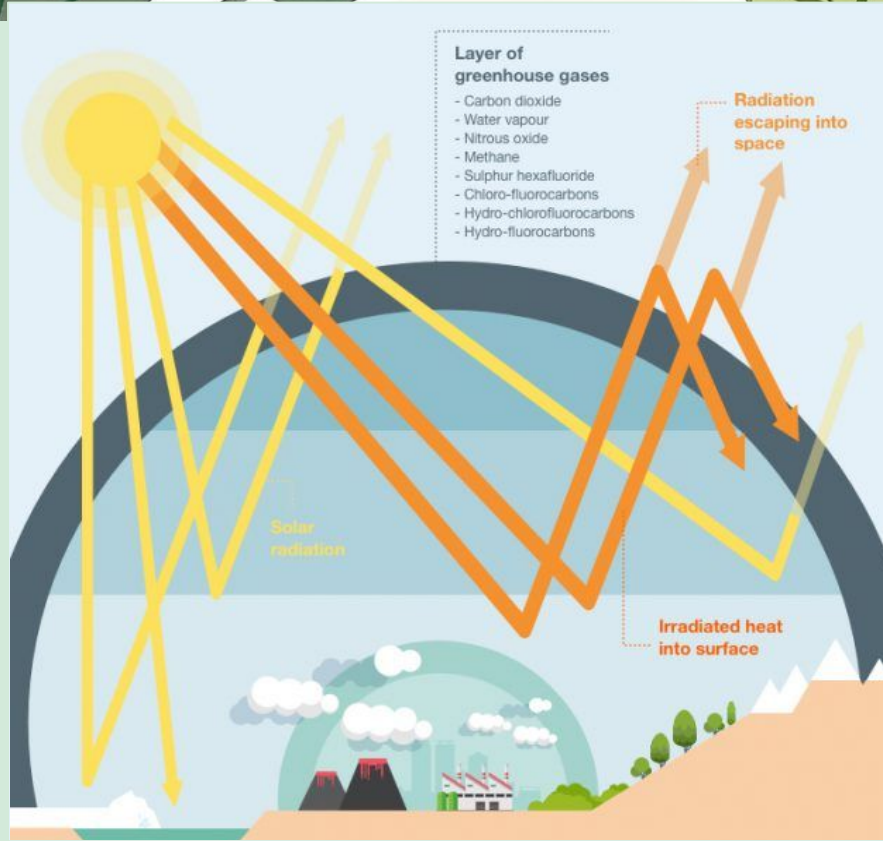
Natural Factors of Climate Change



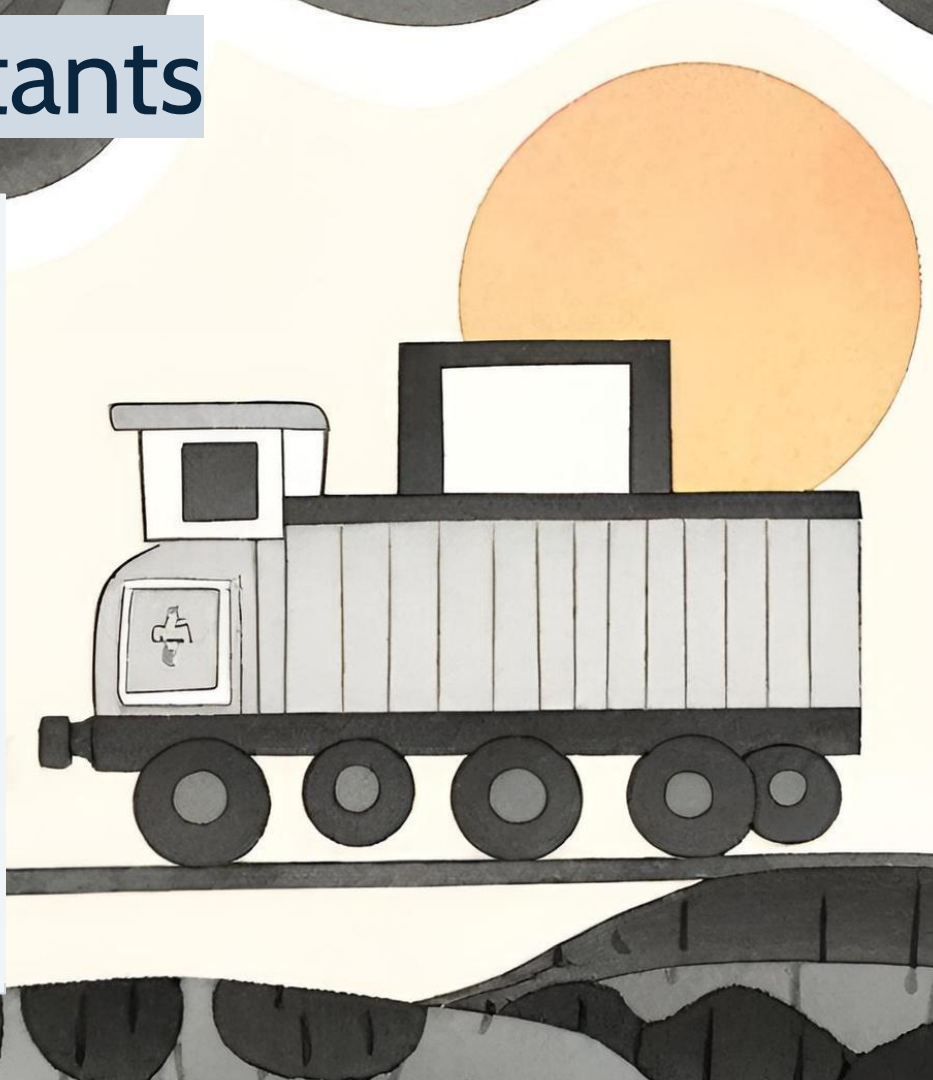
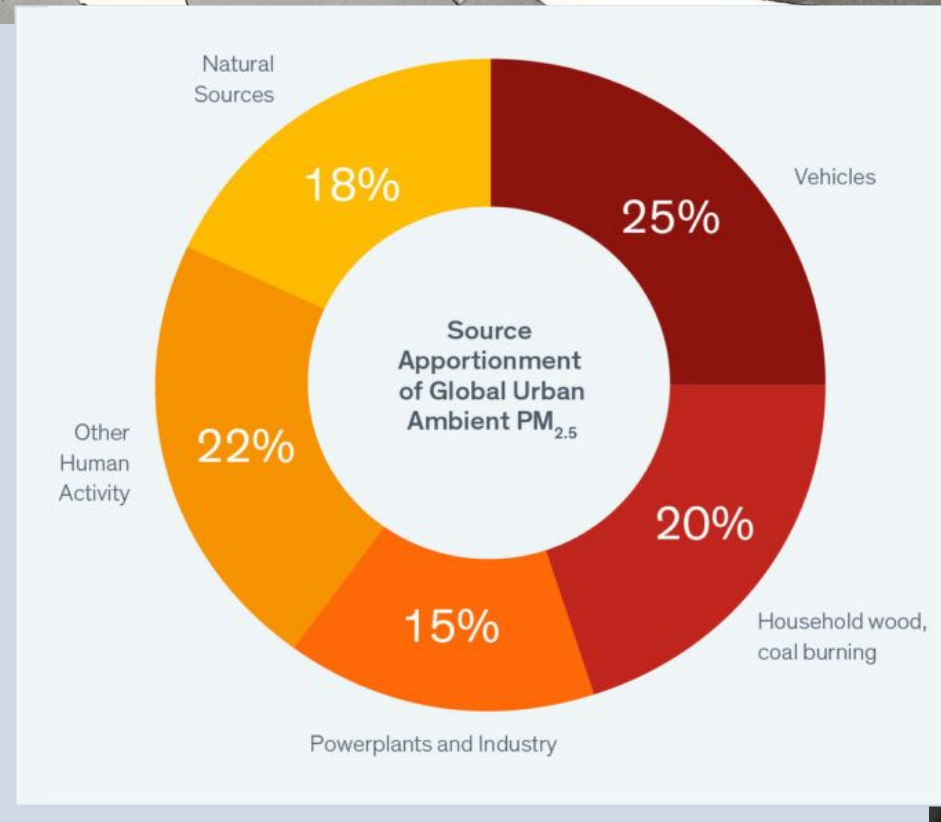


What else
contributes
to climate
change?

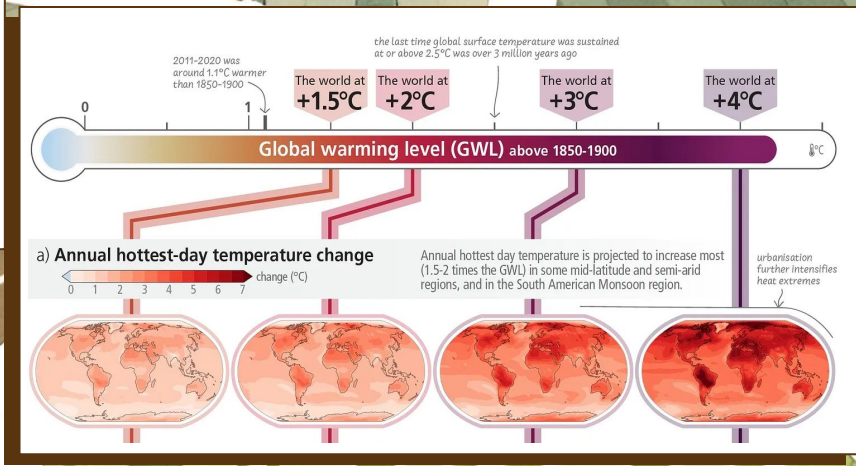
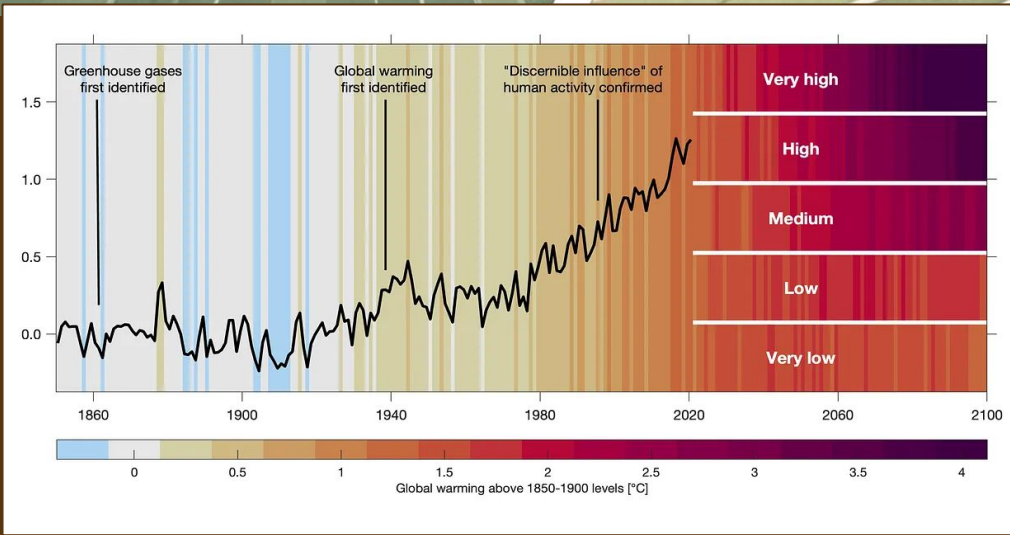
Greenhouse Gasses and Climate Change



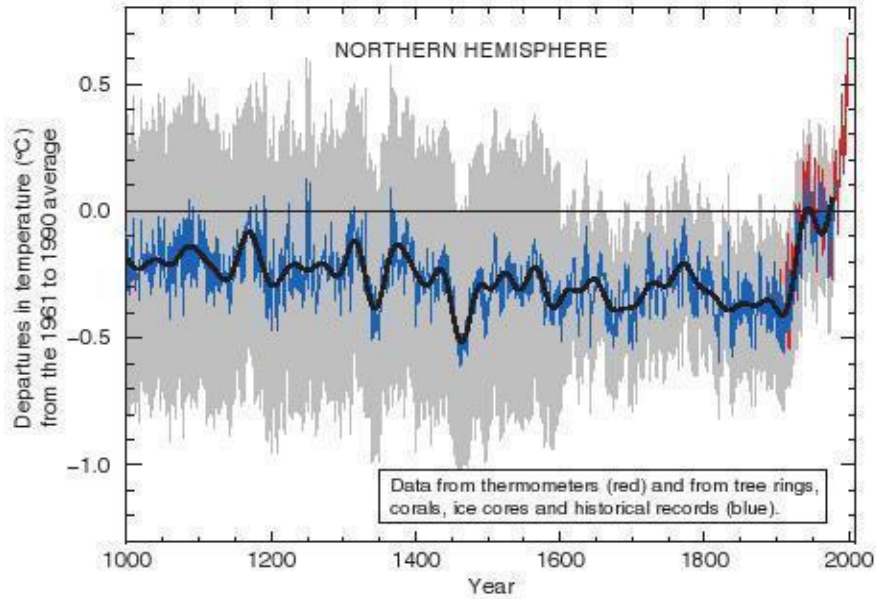
Pollutants



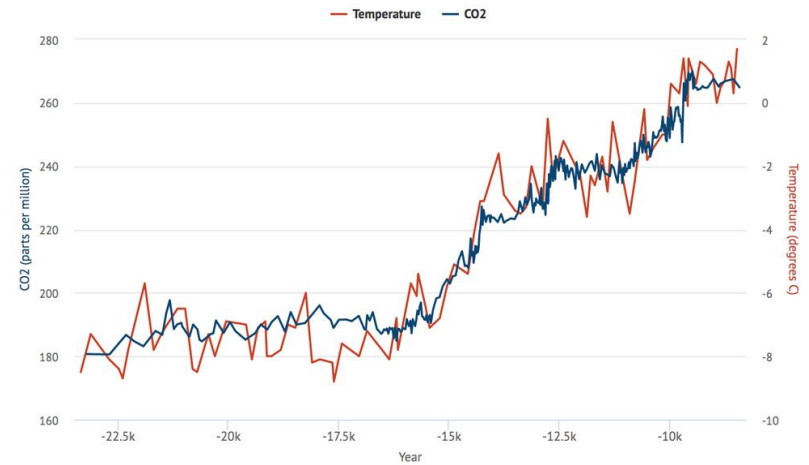
Human Impact



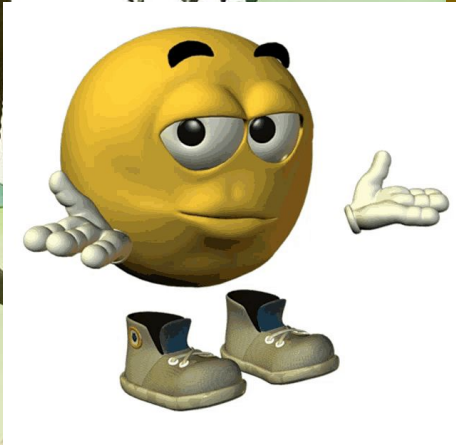
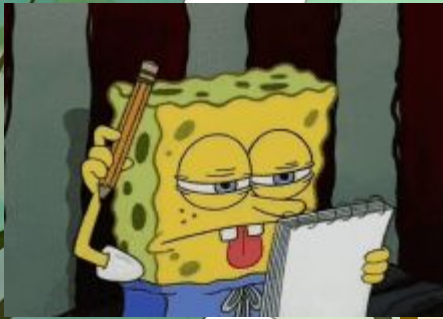
Global Warming



Antarctic Temperature and CO₂ during the last glacial period (23,000 BCE to 8,500 BCE)



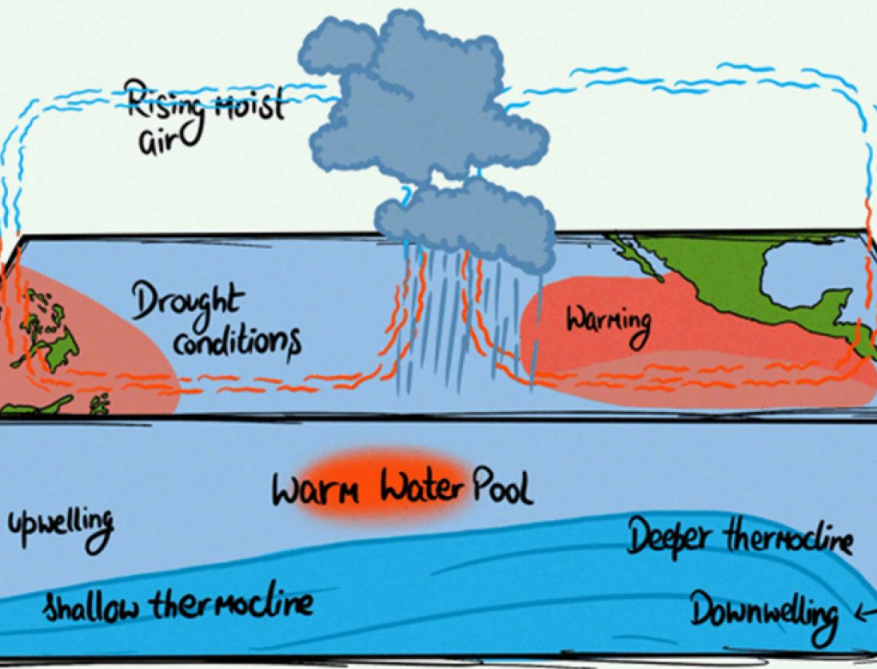
Why are we
worried
about climate
change?







El Niño Condition



Research Letter |  **Free Access**

Enhanced El Niño–Southern Oscillation Variability in Recent Decades

Pamela R. Grothe  Kim M. Cobb, Giovanni Liguori, Emanuele Di Lorenzo, Antonietta Capotondi, Yanbin Lu, Hai Cheng, R. Lawrence Edwards, John R. Southon, Guaciara M. Santos ... [See all authors](#) 

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 SECTIONS

 PDF  TOOLS  SH

Abstract

The El Niño–Southern Oscillation (ENSO) represents the largest source of year-to-year global climate variability. While Earth system models suggest a range of possible shifts ENSO properties under continued greenhouse gas forcing, many centuries of preindustrial climate data are required to detect a potential shift in the properties of

An illustration of three green recycling bins in a garden. The bins are arranged in a row, with a taller one in the center. Each bin has a recycling symbol on its front. The scene includes a tree trunk on the left, green leaves at the top, and white flowers with yellow centers at the bottom. Two light orange rectangular boxes with dark brown borders are overlaid on the image, one at the top and one at the bottom.

Solutions

Questions?



Thank You



BINGO TIME

