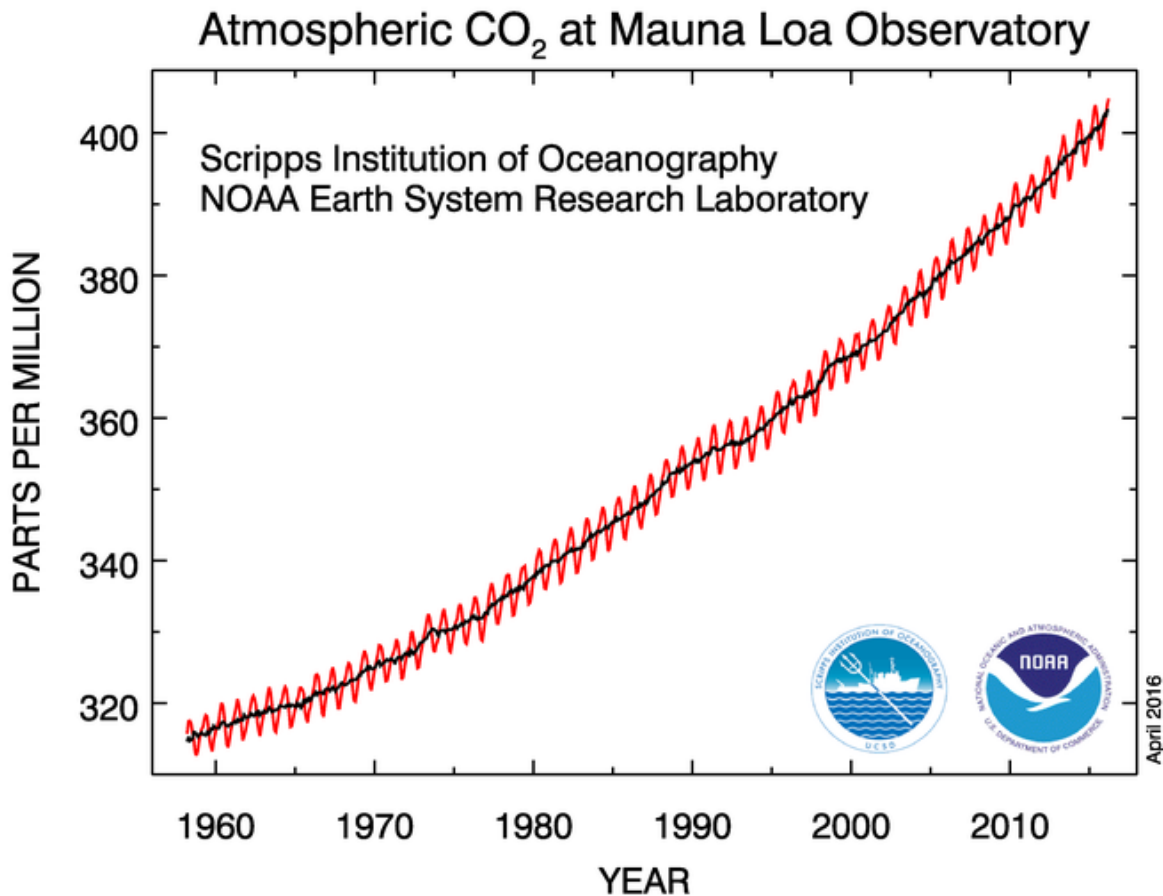

Figures for Class Assignment 2017

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Winter 2017

1. Gaia - Observed Increase of Atmospheric Carbon Dioxide (CO₂)



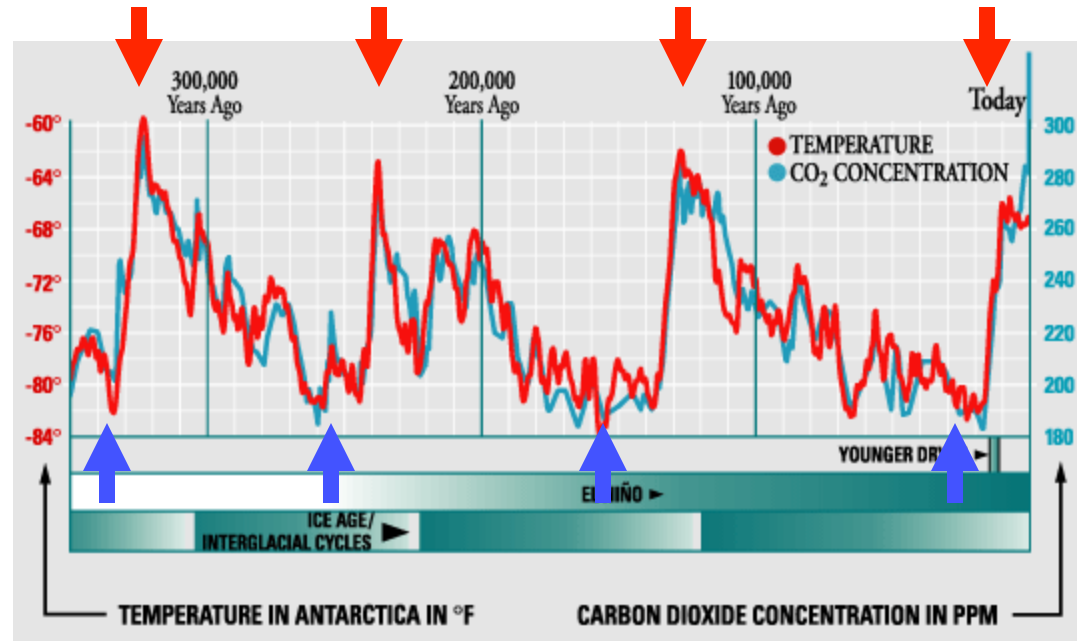
Primary increase comes from burning fossil fuels – coal, oil, natural gas

[The Economist on 400 ppm](#)

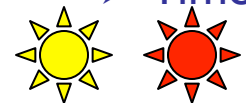
2. Terra - Bubbles of gas trapped in layers of ice give a measure of temperature and carbon dioxide

350,000 years of Surface Temperature and Carbon Dioxide (CO₂) at Vostok, Antarctica ice cores

This has been extended back to > 700,000 years



- During this period, temperature and CO₂ are closely related to each other
- Times of low temperature have glaciers, ice ages (CO₂ <~ 200 ppm)
- Times of high temperature associated with CO₂ of < 300 ppm



3. Yer Tanri - September Temperature Anomaly

September Global Surface Mean Temp Anomalies

NCEI/NESDIS/NOAA

Analysis is based upon Smith et al. (2008) methodology.

