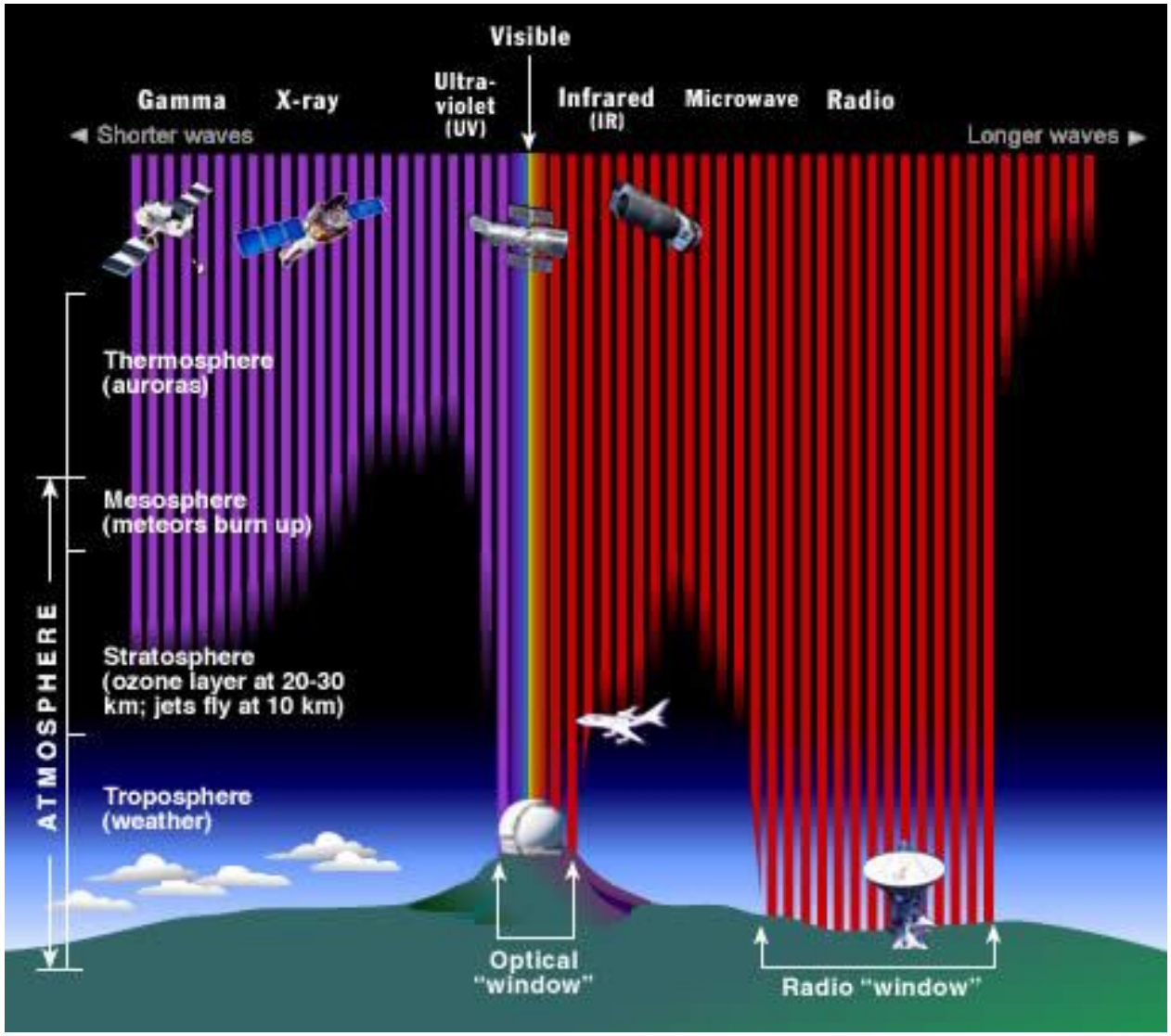
Atmosphere Composition

Figure 1



Energy Reflected or Absorbed

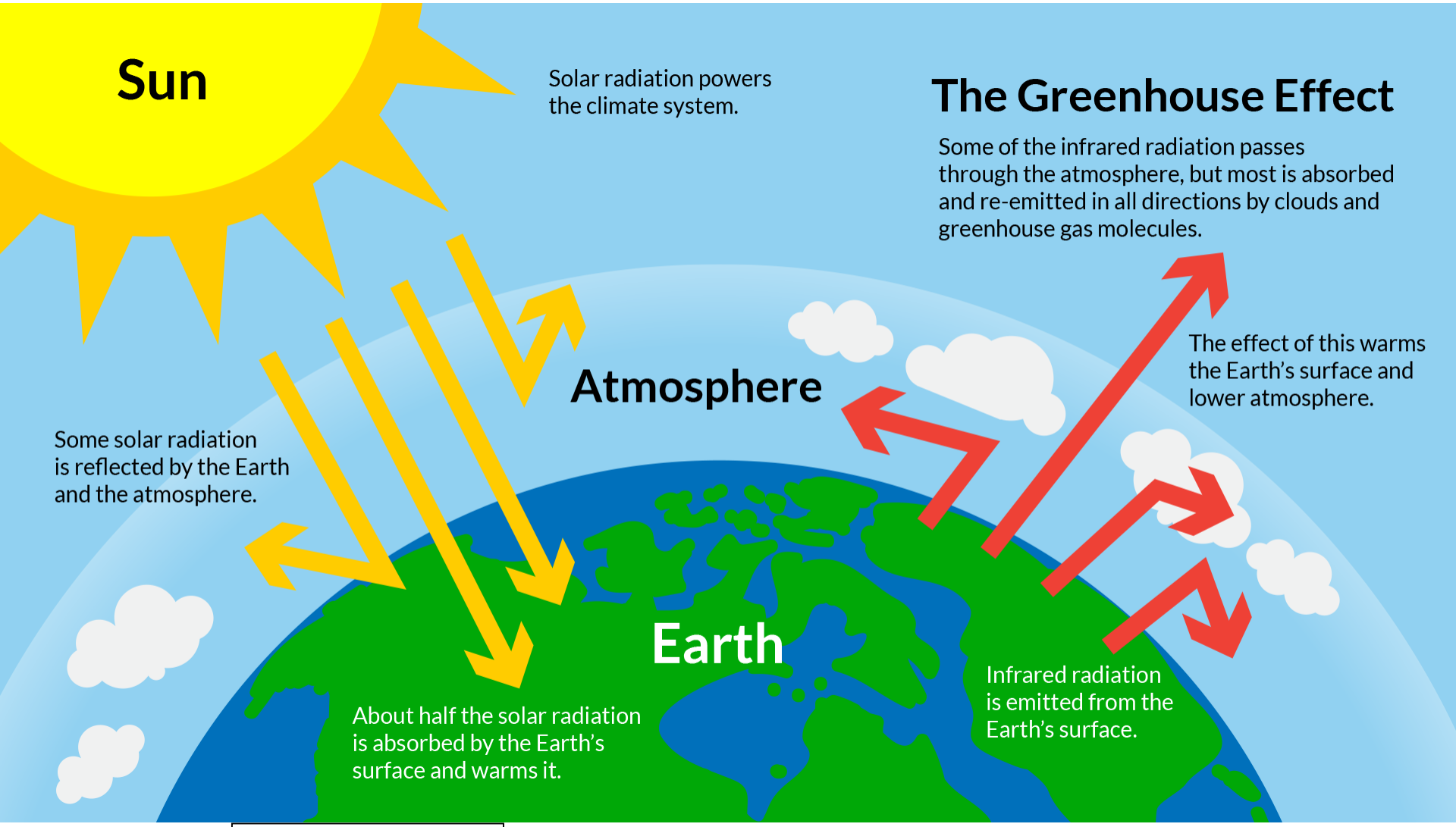


Figure 2

Yellow = Visible radiation

Red = Infrared radiation

Greenhouse Effect

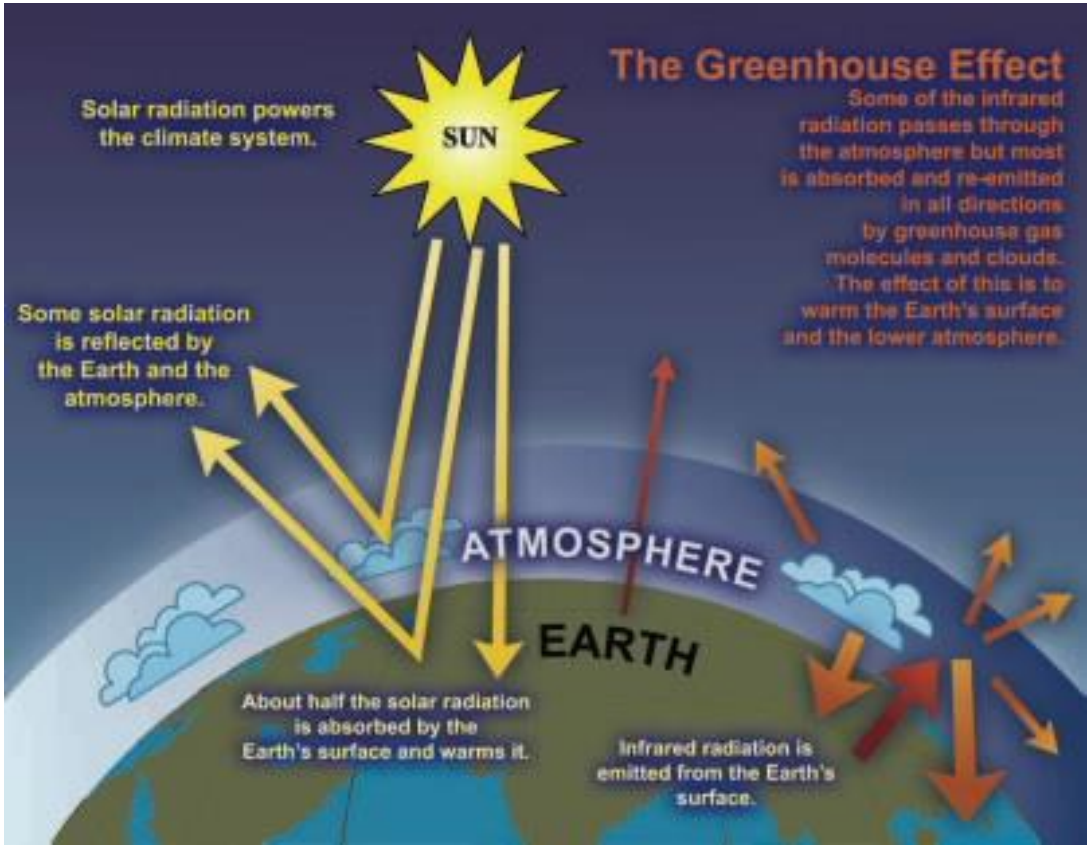


Figure 3 & 4

Greenhouse gases

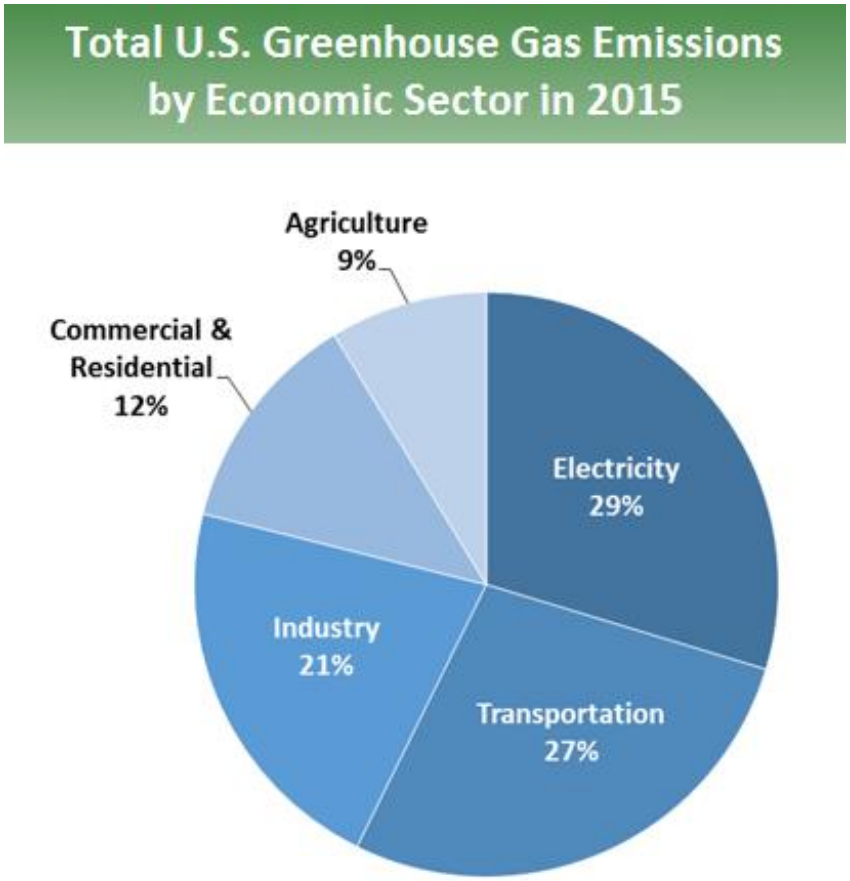


Figure 6

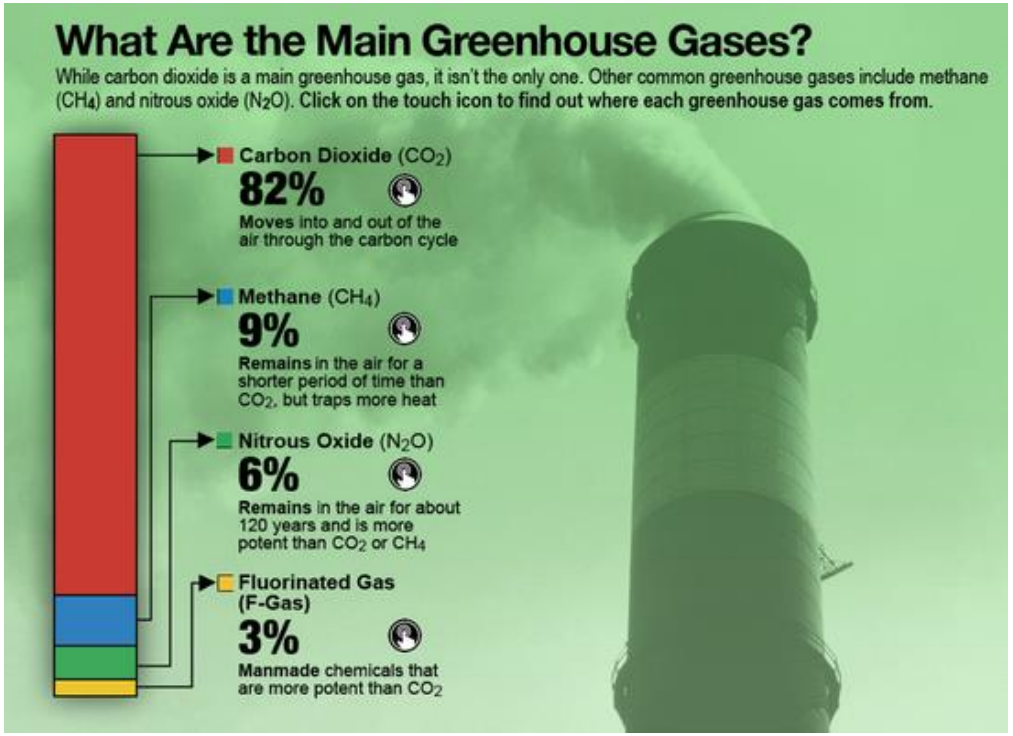
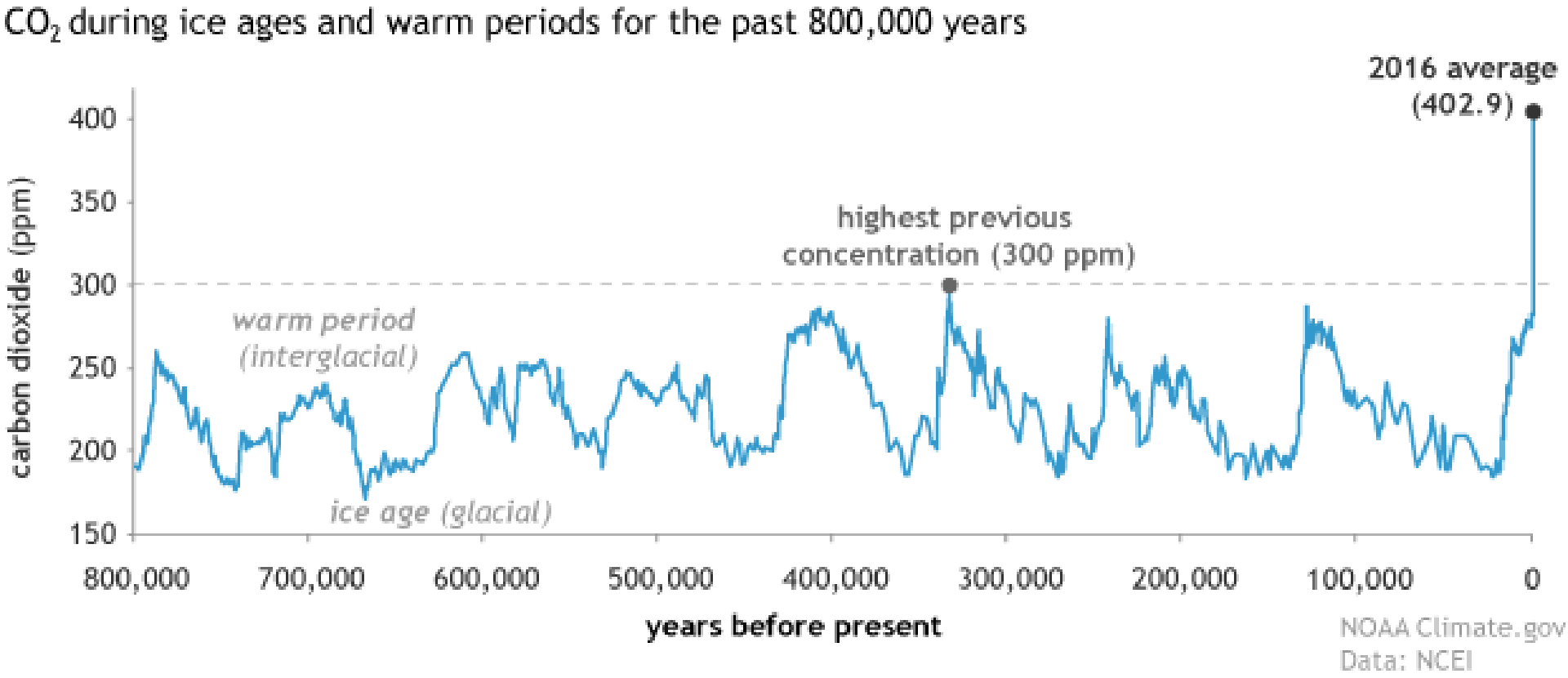


Figure 5

CO_2 Historical Levels

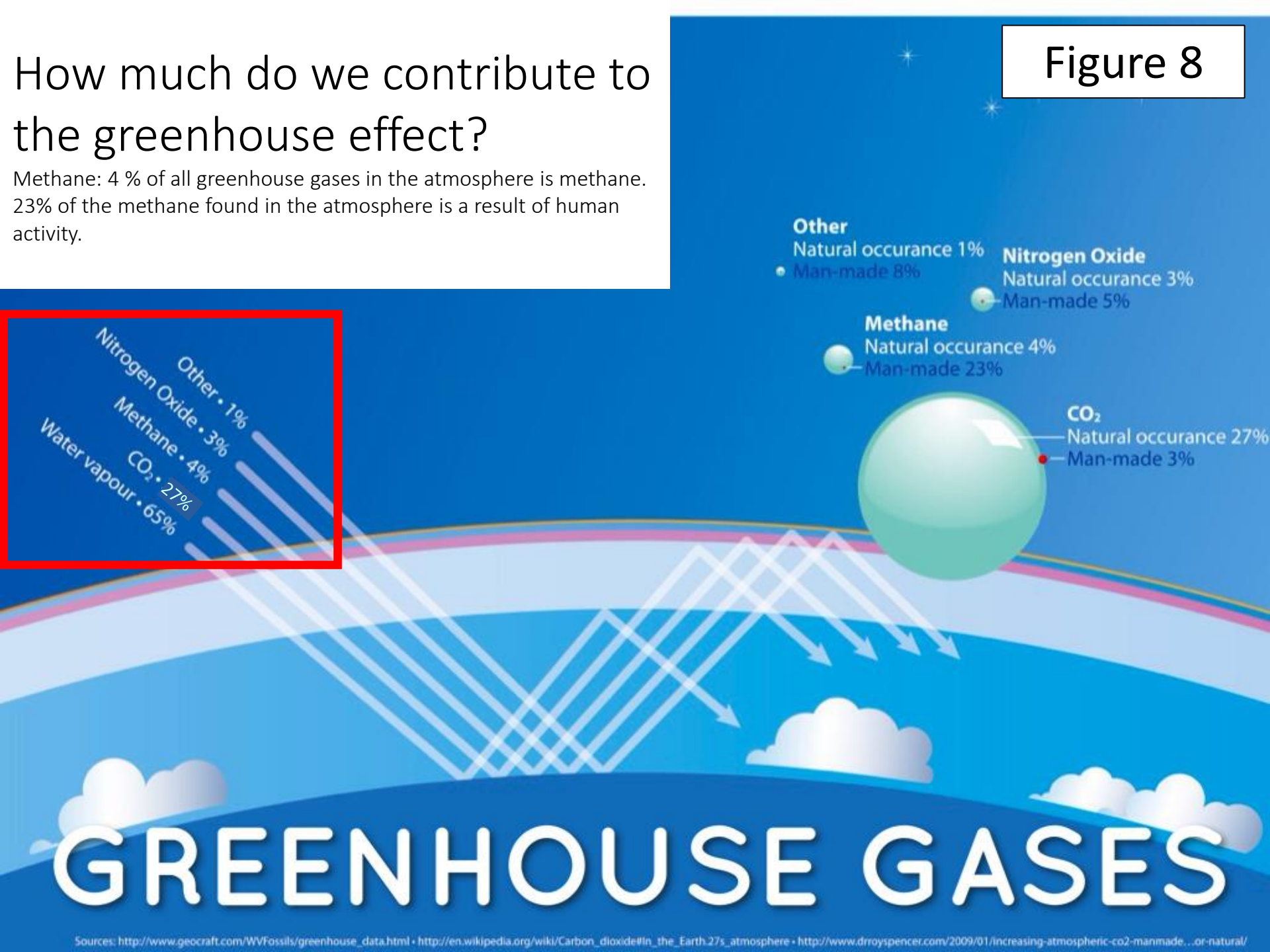
Figure 7



How much do we contribute to the greenhouse effect?

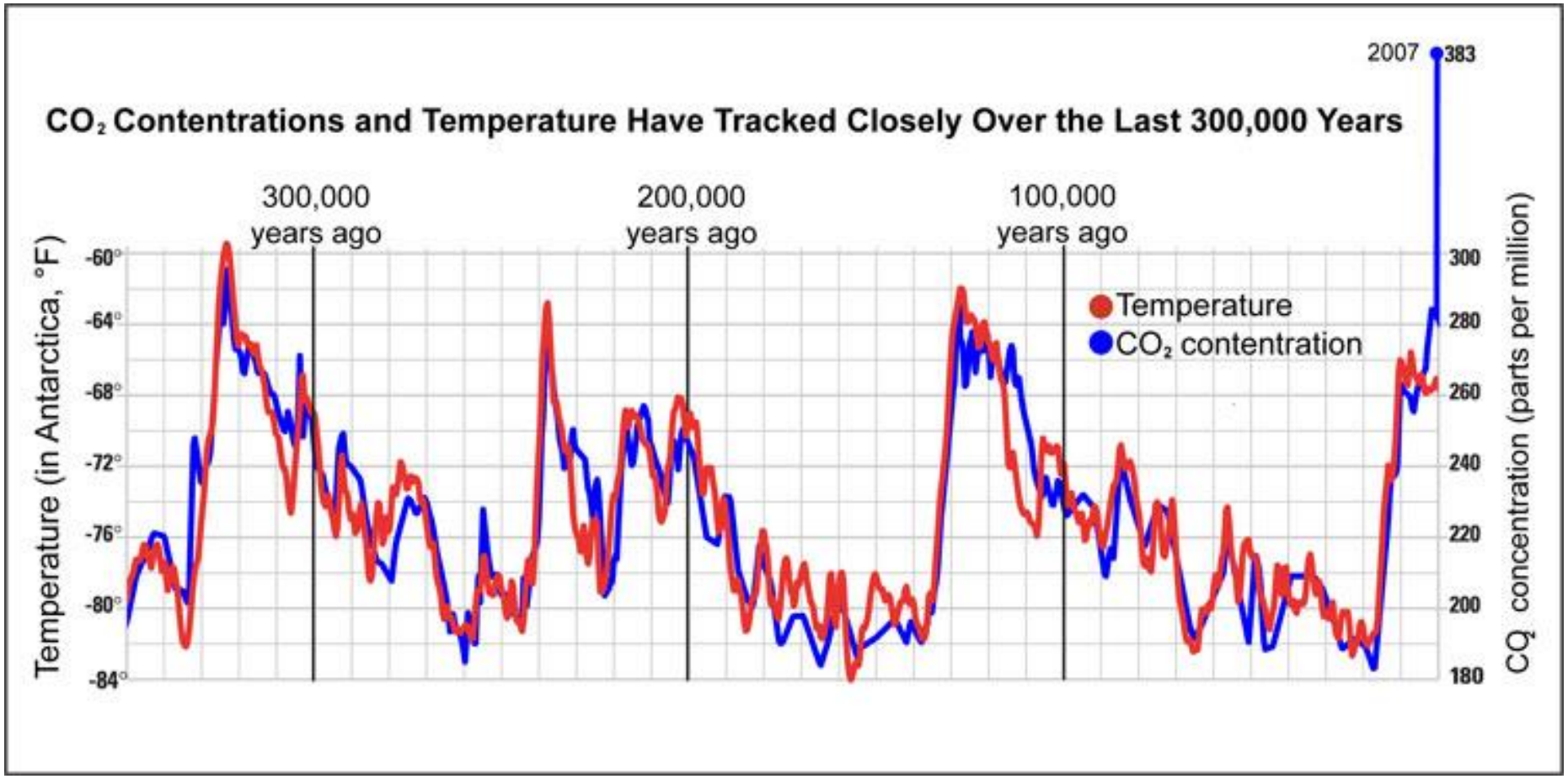
Methane: 4 % of all greenhouse gases in the atmosphere is methane. 23% of the methane found in the atmosphere is a result of human activity.

Figure 8



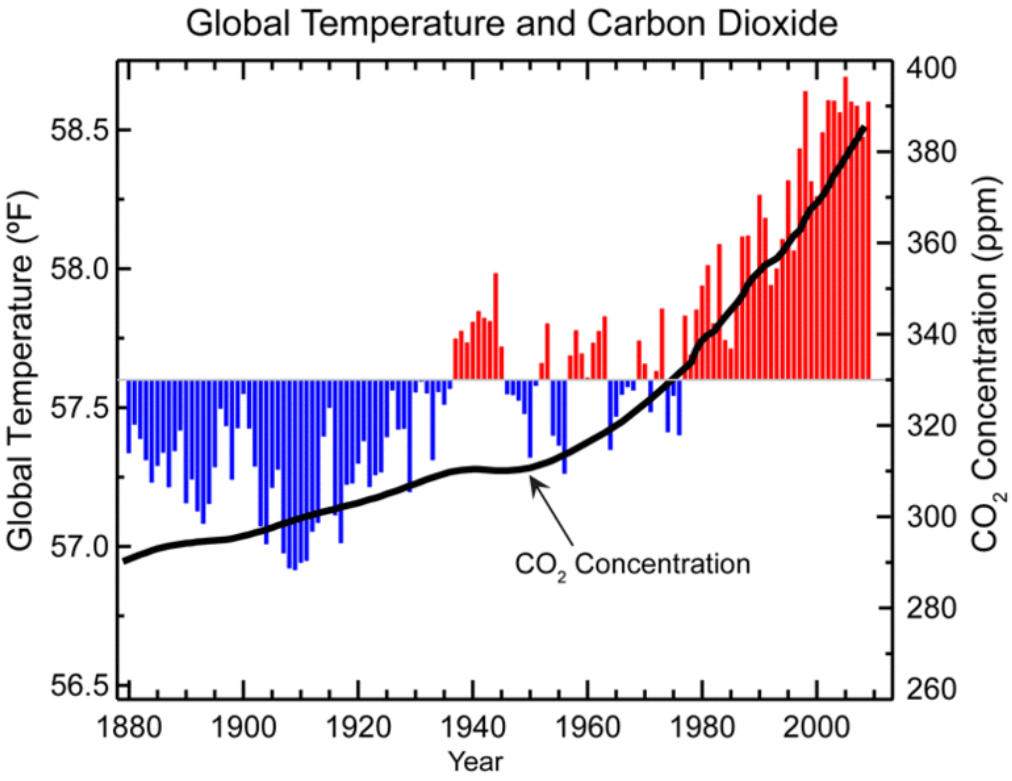
CO_2 and Temperature

Figure 9



CO_2 and Today's Temperature Increase

Figure 10



This graph shows average global temperature measured over land and oceans.
Red bars indicate temperatures above the 1901-2000 average temperature.
Blue bars indicate temperatures below the 1901-2000 average temperature.
The black line shows atmospheric carbon dioxide concentration in parts per million.

Add the answers to these questions at the end of your packet.

1. What has happened to levels of CO_2 since the industrial revolution?

2. Does the average global temperature and the amount of CO_2 in the air appear to be connected? YES or NO

3. When was the last time we experienced a year that was colder than the 1901-2000 average temperature?

4. What do you expect to happen to the global temperature if the amount of CO_2 in the atmosphere continues to rise?