

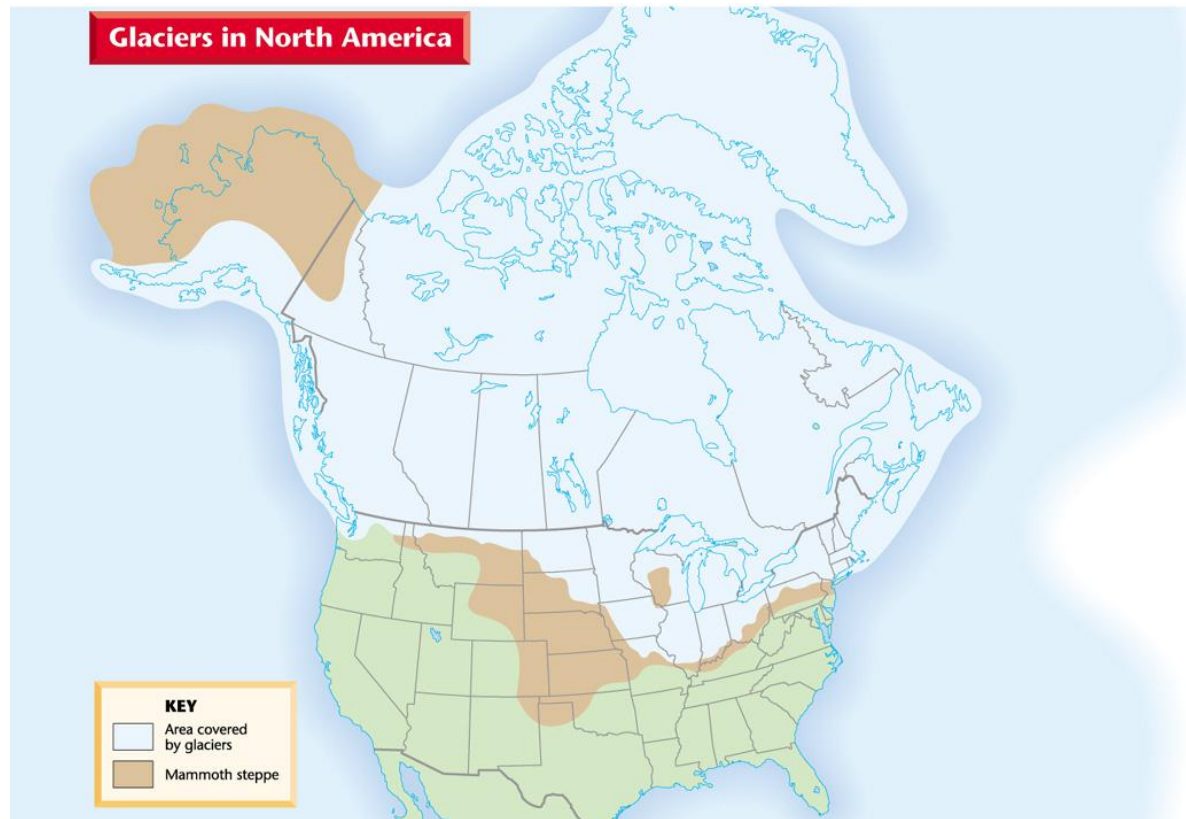
Section 19-3

Long-Term Changes in Climate



Ice Ages

- During each ice age, huge sheets of ice called glaciers covered large parts of the Earth's surface.



Possible explanations for major climate changes include variations in the position of Earth relative to the sun, changes in the sun's energy output, and the movement of continents.

- **Earth's position-when earth is closest to the sun changes**
- **sunspots**
- **movement of continents-The Great Flood**



Section 19-4

Global Changes in the Atmosphere

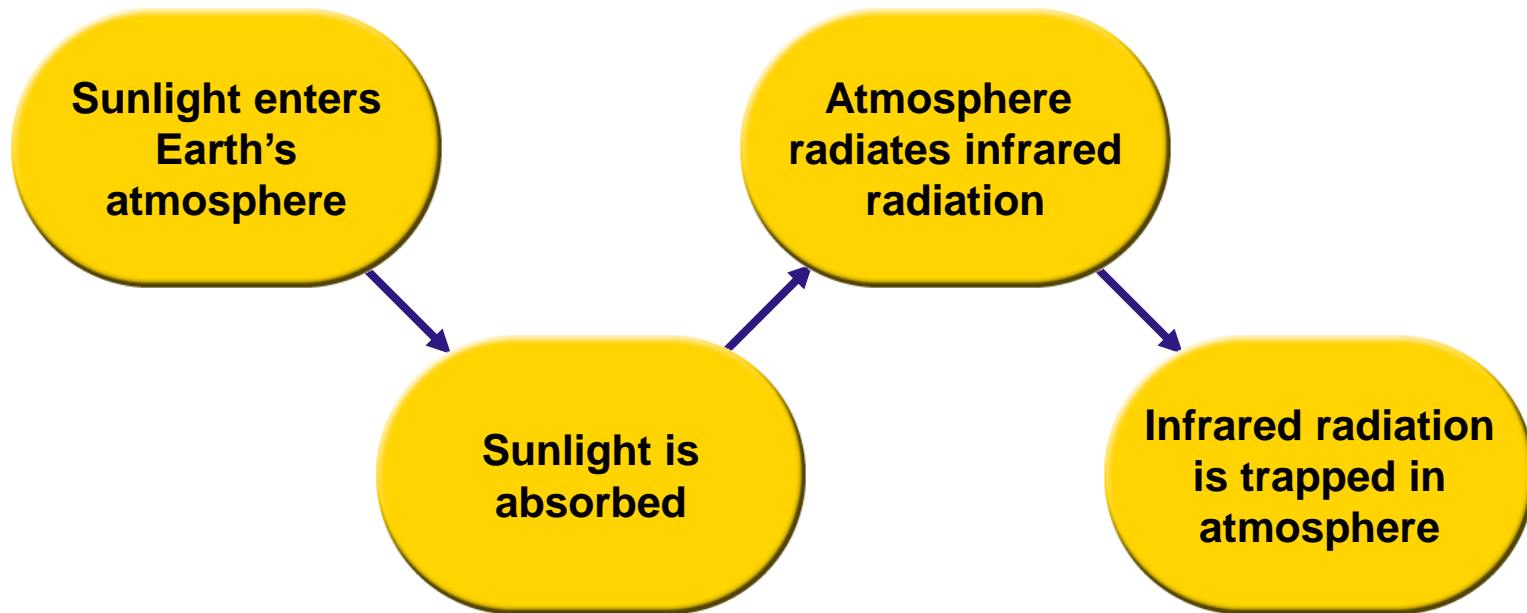


Global Warming

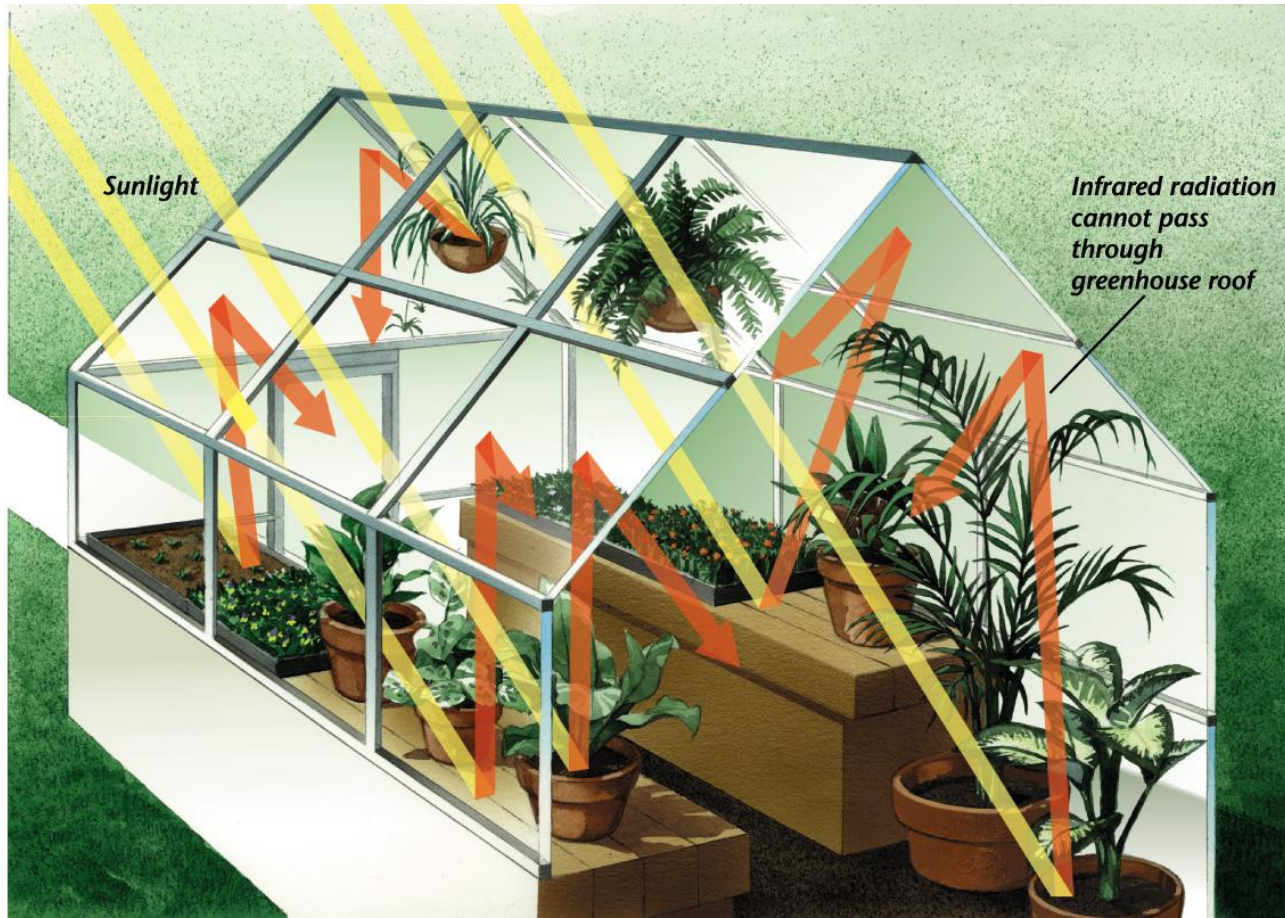
- Over the last 120 years, the average temperature of the troposphere has risen by about 0.5° Celsius
- What are the causes?



The Greenhouse Effect



The Greenhouse Effect



Ozone Depletion

- **CFCs - chlorofluorocarbons**
- **Banned by many nations in the 1970's**
- **Many nations ended production of CFCs in 2000**

