

Small electromagnetic waves from the Sun go right through the atmosphere

Small electromagnetic waves hit Earth's surface

Earth's surface molecules get excited by the electromagnetic waves and begin vibrating faster (get HOT)

Hot Earth molecules re-radiate longer wavelengths. These are infrared waves (AKA heat.)

Infrared waves reflect back into the atmosphere and are absorbed by carbon dioxide, methane, water, and other greenhouse gases.

Greenhouse gases move faster and are therefore warmer. The atmosphere heats up.