**Greenhouse Effect**

It is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ process that has been happening for hundreds of years.

Gases and clouds \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ infrared \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ emitted from the

Earth's surface and radiate it, heating the atmosphere and Earth's surface.



**Greenhouse Gases -** Any gas in the atmosphere (ie: water vapour, carbon dioxide, and

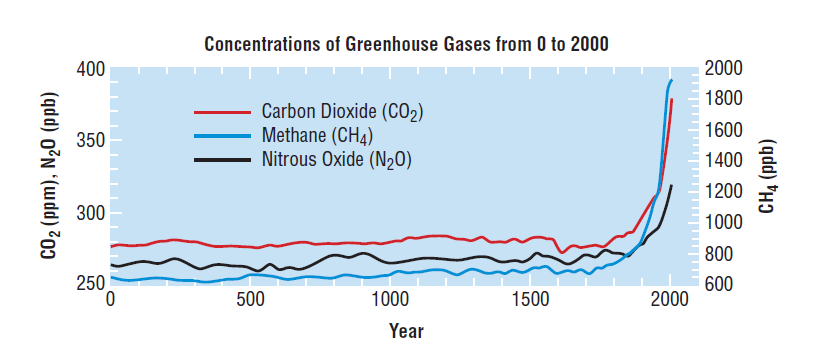
methane) that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lower energy infrared radiation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **GAS** | **CHEMICAL FORMULA/MOLECULAR STRUCTURE** | **NATURAL ABUNDANCE IN ATMOSPHERE (HIGH/LOW)** | **ABILITY TO ABSORB THERMAL ENERGY (HIGH/LOW)** | **CONTRIBUTION TO GREENHOUSE EFFECT**  **(HIGH/LOW)** |
| **Oxygen** |  |  |  |  |
| **Nitrogen** |  |  |  |  |
| **Carbon Dioxide** |  |  |  |  |
| **Water Vapour** |  |  |  |  |
| **Methane** |  |  |  |  |
| **Ozone** |  |  |  |  |
| **Nitrous Oxide** |  |  |  |  |

**Positive Feedback Loops**

**Negative Feedback Loops**

What would happen if the amount of these gases present in our atmosphere increased?



**Anthropogenic** -

|  |  |
| --- | --- |
| **GAS** | **ANTHROPOGENIC SOURCES:** |
| Carbon Dioxide |  |
| Methane |  |
| Nitrous Oxide |  |
| CFCs (Chloroflouro carbons) |  |

How does an increase in atmospheric CO2, affect the global temperature?

**Homework:**

Read Section 8.6 (pg: 338-342) Do questions # 1, 4, 5

Read Section 9.4 (pg: 384-389) Do questions #2, 5, 6