**Video Notes # 2: Altitude, Temperature, Air Pressure, Density, Ozone, Greenhouse Effect and Climate Change**

 **I can define Altitude, Air pressure, temperature and density**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**: the height of anything above a reference level, especially above sea level on earth. Example: As a plane takes off, it’s altitude is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as it gets higher.

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**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:** a measure of the warmth or coldness of an object or substance with reference to some standard value.

**Density:** mass divided by volume. It is the measure how much mass there is per volume. The more dense something is, the heavier it is

 Low density high density

 **I can describe how altitude affects air pressure and temperature**

**Altitude and Air Pressure**

* As \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_decreases.

**Altitude and Temperature**

* As altitude increases in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_temperatures \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* As \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ increases in the Stratosphere \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ increases
* As altitude increases in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_temperature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* As altitude increases in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ temperature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **I can define ozone and identify “good” and “bad” ozone**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (O3) gas that occurs in Earth’s upper atmosphere and at ground level.

**Good Ozone:**

* A thin layer in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that protects us from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Blocks \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from reaching Earth’s surface.
* Makes up 90% of ozone

**Bad Ozone:**

* Found close to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of Earth, in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Makes up 10% of ozone.
* Main ingredient is urban \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Air pollutant that is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and it damages crops, trees and other vegetation.

**What happens if we have more UV Rays…**

* more cases of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* increase in melanoma
* impaired immune systems
* Cataracts
* Damage to sensitive \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* reduce \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in phytoplankton (base of the food chain for ocean animals)

**I can describe the Greenhouse Effect**

* **Greenhouse Effect**: The trapping of heat near Earth’s surface by greenhouse gases (Carbon Dioxide, Methane) that form a “blanket” around the Earth
* Without the greenhouse effect, Earth would be much colder—about 33 Celsius degrees colder, on average. All of Earth’s water would be frozen!

 **I can describe climate change and discuss how to be an environmental steward**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**: is an average \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the atmosphere near the Earth's surface and in the troposphere, which can contribute to changes in global climate patterns

* Climate Change can occur from a variety of causes, both \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ included

**Why does Climate Change affect us?**

* Glaciers, permafrost and sea ice are disappearing
* Sea levels are rising, seasons changing and extreme weather is becoming more extreme
* Could lead to more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**What can I do to help?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:** is someone who \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the environment through \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, conservation, regeneration, and restoration.