Composition of atmosphere.

Atmosphere :-

The Surface of the earth is surrounded by the blanket of gases or air, and the blanket of gases hanging over the surface of the earth due to its gravitational force called the earths atmosphere.

Structure of the atmosphere :-

The vertical Pattern of the earths atmosphere is consisted on series of layer in which the temprature increases and decreases with its altitude. These layers are from bottom to top.

i) Troposphere :-

The bottom layer of the atmosphere. where tempreture decreases with altitude. the rate of decrease in tempreture is known as lapse rate, which is about **6.5 °C / 1000 m**. All the weathers occured in the trosphere and clouds, Gases and dust Particles formed in this layer. altitude varies with Latitude, it is lowest over the Poles about **(8 km)** and highest over the Longitudes **(16 km)**. The region called tropopause is Present at **12 km** which seprates the troposphere from the stratosphere.

2) stratosphere :-

Above the tropopause the thinner, clean and calm Layer of stratosphere. the water vapor is absent in this

Layer which Prevents the cloud formation. Ozone layer is also present in strato sphere. shielding the earth from ultraviolet radiation of the sun. This is ~~ato~~ layer also known as ozonosphere. It is about **50km** above.

3) **Mesosphere :**

above the Stratosphere, in the altitudinal zone between **50 km** to **80 km**, the zone lies where tempreture decreases called the mesosphere. this is the coldest layer of the atmosphere, This layer Protect earth from the meteors. They burn up in this layer. (**Meteors** — small space object)

4) **Thermosphere :**

~~A~~bove the mesosphere the Layer found Thermosphere, about **80 km** above. In this Layer the tempreture can be extremly hot. sunlight reduces molecules that individual electrically charged particles called ions. and the process is known as **Ionization** These particles Penetrate into themosphere, and split into a bright sheet display. called (**aurora borealis**) in nathern hemispher and (**aurora australis**) in the sourthern hemisphere.

5) ~~Exos~~

Exosphere :

The outermost layer of the atmosphere and it also known as the Ionosphere.

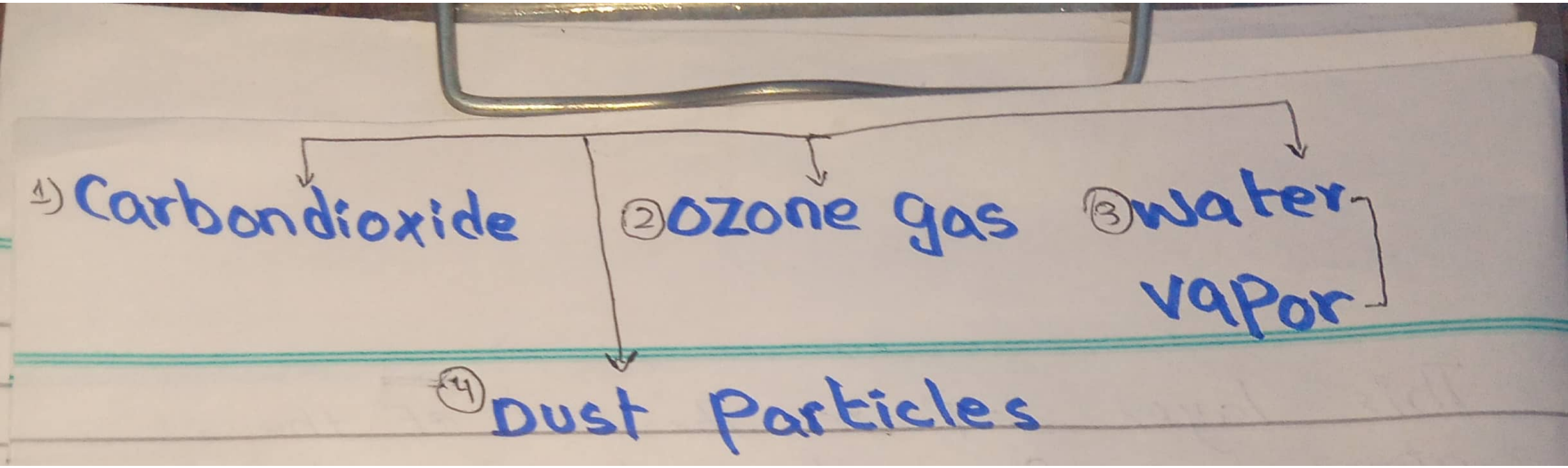
This layer separates the rest of the atmosphere from the outer space. this layer also protect the earth from meteors, asteroids and cosmic rays.

Composition of the atmosphere.

The earth's atmosphere is made up of from different gases, water vapor and dust particles. the composition of pure, dry-air at lower elevation is simple and uniform. the minor gases and non gases varies place to place and time to time, however the amount of the ~~water~~ moisture present in air. the earth's atmosphere plays significant role to sustained the life on the earth surface, mostly oxygen and nitrogen is present in the atmosphere which is necessary for both human beings and the plants. as human and ~~plants~~ animals need oxygen and plants and some other species need carbondioxide to survive.

the earth's atmosphere also protects earth from ultraviolet rays which comes from sun and also other celetial bodies for instance meteors, dust particles and asteroids. Nitrogen and the oxygen two main gases of the atmosphere compose **99 %.** of the atmosphere, other gases like **argon, helium, neon** and **carbon-dioxide** from the remaining part of the atmosphere.

Gaseous composition of the earth's atmosphere.


1) Carbondioxide
2) Ozone gas
3) Water vapor
4) Dust Particles

1) Carbondioxide :.

It is meteralogically a vital gas. it is transparent to the incoming solar radiation that's **insolation**, but opaque with outgoing terrestrial radiation. It traps the radiation and also reflect terrestorial radiation towards Earth. merely it is responsible for (green house effect)

2) Ozone gas :.

ozone is the another important gas. it acts as a filter and absorb ultraviolet radiation from the Sun. the (O_3) ozone gas is present in very little amount in the atmosphere but it is present in the layer of Stratosphere.

3) Water vapor :.

Gaseous form of water present in the atmosphere known as "water vapor". which is responsible for all sort of precipitation. The amount of water decreases with altitude and increases from equator towards Poles. total **0-4%** amount of water present in atmosphere which is less than **1%** in desserts, **4%** on tropics and **1-2%** typical mid latitudes. the water reaches in the atmosphere through evaporation and transpiration

4) Dust Particles :.

Dust Particles present in the lower layer of atmosphere, usually present in the form of dust, ash and other solids called particulates. It help in the water vapor to condensed on-particules provides as **nuclei** to water vapor, which formed around and condensed water vapor, and formed clouds.