**Composition of the atmosphere**

The nature of the atmosphere has changed overtime. Here are the stages in that development:

* Originally, the Earth was a very hot molten ball of rock, all gases produced escape into space.
* Earth begins to cool and then forms a thin solid crust, volcanoes are very active.
* An atmosphere begins to form around \_\_ billion years ago because the gases no longer have so much energy that they escape into space. That is because the Earth has carried on cooling.
* The first atmosphere is mainly made up of \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_, little or not \_\_\_\_\_\_\_\_\_\_\_ gas, possibly some \_\_\_\_\_\_\_\_\_ vapour and small amounts of methane and ammonia.
* Over the next 3000 billion years, up to around 1000 billion years ago, the level of \_\_\_\_\_\_\_\_\_\_\_\_ increases (from chemical reactions).
* Eventually the surface of the Earth cools to below 100˚C and so water vapour condenses and \_\_\_\_\_\_\_\_\_\_\_\_ form.
* In these oceans, life begins.
* This life is plant life so the process of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ begins.
* The level of carbon dioxide begins to decrease dramatically and the gas \_\_\_\_\_\_\_\_\_\_\_\_ is formed, at firstly it is only dissolved in the oceans.
* The carbon dioxide is locked up in \_\_\_\_\_\_\_\_\_\_\_ fuels and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rocks. Some carbon dioxide is dissolved in the \_\_\_\_\_\_\_\_\_s. The amount of carbon dioxide dissolved in the \_\_\_\_\_\_\_\_\_\_\_ affects the marine environment.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ begins to build up in the atmosphere (O2).
* Some of this oxygen eventually forms \_\_\_\_\_\_\_\_\_\_\_ (O3).
* This allows plant and animal life to move to land as they are now protected from harmful UV rays by the \_\_\_\_\_\_\_\_\_\_\_\_ layer.

**4**, **carbon dioxide, carbonate, fossil, nitrogen, oceans, oxygen, ozone,**

**photosynthesis, water,**

For the last \_\_\_\_\_\_\_\_\_ million years the composition has been much the same as they are today. \_\_\_\_\_% nitrogen, \_\_\_\_ % oxygen, small proportions of other gases including \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_, and a varying amount of \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ which depends on the weather, plus lots of other things including noble gases.

Recently, in the last 200 years, carbon dioxide is being released faster than ever before by burning \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_. Carbon dioxide levels in the atmosphere have actually \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the last 200 years time even though levels are still much lower than when the Earth’s atmosphere was first formed. It is thought that these increases are causing \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ because carbon dioxide is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gas.

The Earth’s climate has changed naturally over the billions of years it has been around. There are always periods of time when the Earth is \_\_\_\_\_\_\_\_\_\_\_\_ up and \_\_\_\_\_\_\_\_\_\_\_\_ down. Many people believe that there is a link that the Earth is currently warming up a lot (global warming) because of the fact that people are burning fossil fuels which is \_\_\_\_\_\_\_\_\_\_\_\_ more carbon dioxide into the atmosphere. A result of these climate changes is \_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_ storms which we hear about in the news.

The Kyoto agreement was signed in 1997 so that world leaders would try to \_\_\_\_\_\_\_\_\_\_\_\_ the amount of carbon dioxide their countries produce.

**21, 78**, **200, carbon dioxide, cooling, droughts, fossil fuels, global warming/climate change, greenhouse, increased, reduce, releasing, violent/tropical, warming, water vapour,**