**The causes of climate change**

Variations reflect methane particles temperature factories sunspots GHG’s carbon dioxide

ash higher trap faster pollution rays earth atmosphere stored lakes oceans air

space energy lower sun block temperatures black haze higher released

water vapour

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| **Natural** | **Human** |
| **Milankovitch Cycles** | **Greenhouse Gases** |
| Milankovitch had a theory that the earth’s temperature changes due to it’s orbit round the sun. For example, every 100,000 years the orbit goes from a circle to an elipse meaning some times we are nearer the sun and get warmer, but other times we are further away and get colder. | Human activity such as burning coal, farming and using aerosol cans can release …………………… These ………………… the sun’s rays in the atmosphere, which makes the temperature ……………………  Some GHG’s are called ………….. …………………… and  …………………………. |
| **Solar output** | **Destruction of Carbon sinks** |
| The sun has …………………… in how much ……………… it creates and sends towards ………………  At times of high energy, the sun has …………….. patches on the surface (called ……………………………). When these can be seen, the …………………………… is usually ……………………………………than usual. | The carbon from the atmosphere can be ……………………. in carbon sinks. Some examples are ………………………, …………………………….., permafrost and forests.  Humans can ……………………. or destroy these carbon sinks, and so the carbon is ……………………… into the air. If there is more carbon, then global warming happens ………………………….. |
| **Volcanic Emissions** | **Global Dimming** |
| The volcano erupts and releases ……………………, sulphur dioxide, …………… and carbon dioxide into the ………………………………  These particles ……………………… the rays from the sun, and ………………… the heat back to space. This means temperatures will be …………………….. than usual. | The cars and ………………………… release …………………… into the ………………………………, which makes a ……………… in the air.  These ……………………… block the …………… from the ………………, and reflect the heat back to ………………. This means ……………………… will be lower than usual. |