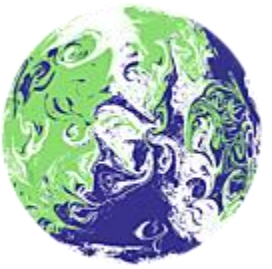


November 2021

COP26 Special

Why is COP26 so important?



UN CLIMATE CHANGE CONFERENCE UK 2021

IN PARTNERSHIP WITH ITALY

COP26 is the 26th Conference of Parties, the first one was held in Bonn, Germany in 1995. The annual conference brings together world leaders, business and industry leaders, charities and scientists to discuss issues around Climate Change.

This year COP26 is in Glasgow from 31st October to 12th November and over 30,000 delegates will be attending over the two weeks.

The big issue to be discussed at COP26 is global greenhouse gas (CO2 particularly) emissions and the importance of getting countries to commit to taking measures to reduce them.

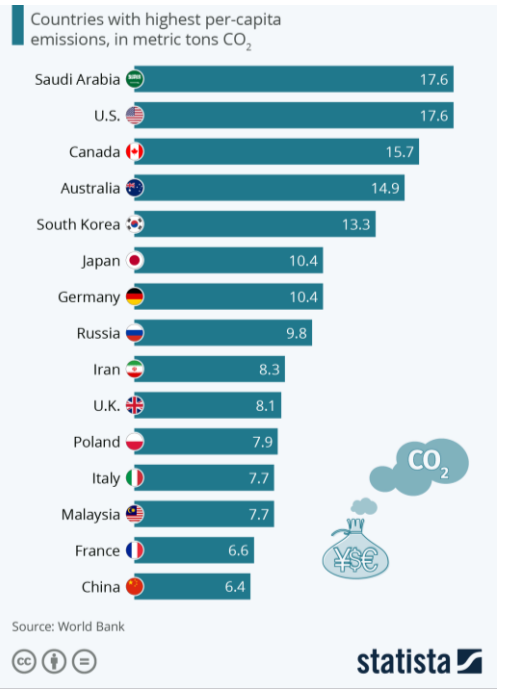
Any effective solutions need to have global support and individual countries politics and economics play an important part in the decisions made. One thing is for sure the solutions are not simple.

What do you think global leaders should be doing?

How can you influence the decisions that politicians make?

Research some of the potential solutions and present your ideas to your class.

COP26 Explained Complex Solutions COP26



Hope!

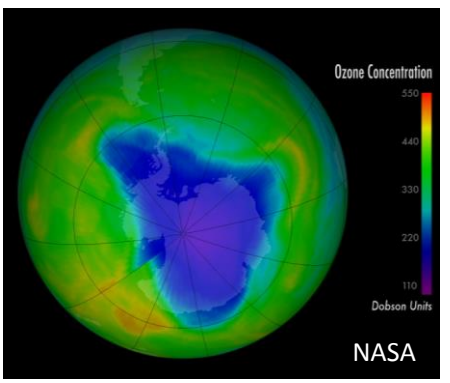
From time to time in human history problems arise that affect either the whole world, or large parts of it. In these situations the nations of the world need to come together to find global solutions.

The positive news is that it is not unprecedented – it has happened before. Ozone is a colourless gas that forms a layer in Earth's atmosphere and blocks most of the sun's harmful UV radiation. In the late 1980's satellite data showed that significant holes had opened in the ozone layer over Earth's poles.

With little time to act before the situation became irreversible the world's leaders came together and signed the Montreal Protocol to ban the use of CFCs which were causing the damage. Within 20 years significant improvements were observed and scientists expect an almost complete recovery by 2070.

How could you persuade politicians that they need to act now to solve the Climate Crisis?

What questions would you ask your countries leaders about their Climate Crisis response?



Satellite observations of the Ozone hole in 1985

Ozone – problem to solution

Closing the Gap

Brief History of Ozone

topicalscienceupdates@gmail.com



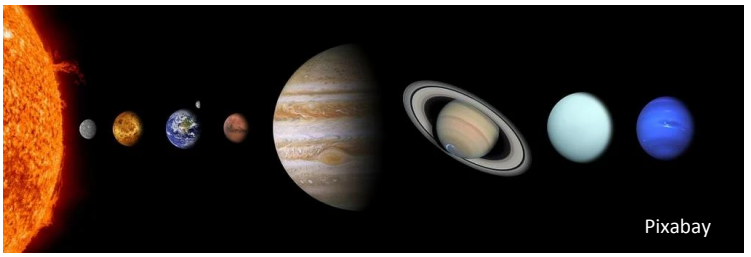
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Climate Science in a nutshell

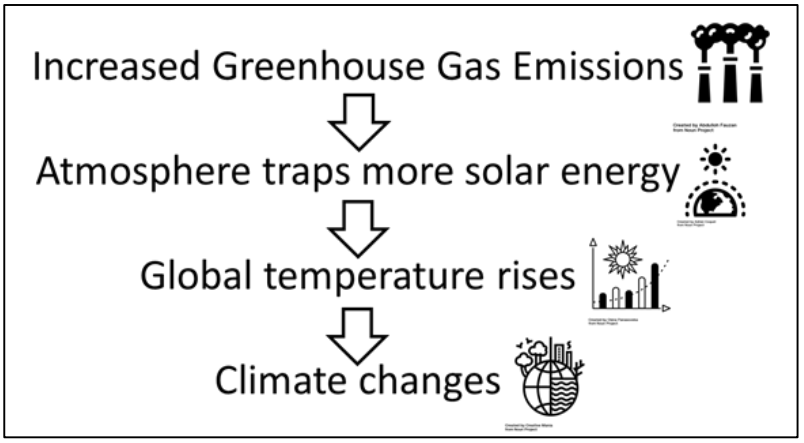
Planet Earth is the only planet in our Solar System which has the necessary conditions to support life. This is down to two factors; we are just the right distance from the sun, and we have a perfect atmosphere.

The atmosphere is like a blanket which traps heat energy from the sun to keep the average global temperature on Earth constant at 16°C.*



* Mars which has a very thin atmosphere has an average temperature of -28°C and Venus which has a very thick atmosphere has an average temperature of 471 °C - neither can support life.

The problem is that this is a very fine balance for Earth and seeming small changes in temperature can have huge effects. The temperature during the last ice age was only 6°C colder, on average, than it is now!



What climate scientists are currently observing is a rapid rise in global temperature due to an increase in greenhouse gasses in our atmosphere.

This is trapping more of the sun's energy (just like a greenhouse does) and warming Earth.

Have you ever walked into a greenhouse? What did it feel like?

Climate change explained NASA Climate Kids The Greenhouse Effect Climate Science

Over its 4.5 billion year existence Earth's temperature has fluctuated naturally. However the rate of temperature increase we are observing now is faster than at any other time in Earth's history.

This is because of human activity producing huge amounts of greenhouse gasses.

Can you research what human activities are most responsible for producing greenhouse gasses?



Climate Change Causes Carbon Footprints

Carbon Footprint Calculator

Climate Change Effects

For COP26 to be considered a success the countries who contribute the most to Climate Change MUST commit to dramatically reducing their greenhouse gas production. That is going to take some masterful political discussions from the already committed nations.

Why might some countries be reluctant to reduce activities than produce greenhouse gases?

What could be done to convince them?

Images from:
Pollution by Abdulloh Fauzan from the Noun Project
Atmosphere by Adrien Coquet from the Noun Project
Global Warming by Olena Panasovska from the Noun Project
Climate Change by Creative Mania from the Noun Project