



PRIMARY CLIMATE SCIENCE SYMPOSIUM

Can we stop climate change? Yes. How can we do this?

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1. What happens if we can't save the 7 wedges?

The average surface temperature will continue to rise.

2. How much longer could the planet survive if we don't change?

The planet will survive, but if the average surface temperature continues to rise, parts of the Earth that people live on will be too hot and too dry, or they may experience other forms of extreme weather, e.g. flooding.

3. What happens if the Earth gets too hot?

The Earth itself will not get too hot and will carry on, but higher temperatures and other climate changes may be difficult for some forms of life to survive in the numbers there are today.

4. What happens if the Earth gets too cold?

The Earth will go into another ice age and this will make life on the surface challenging. Perhaps children could have a look at information about past ice ages? They could discuss: Do you think climate change could stop another ice age from occurring?

5. What would happen if all the ice in the world melted because of global warming?

Sea levels would rise dramatically and a lot of land would be lost due to flooding. This would make the amount of land that we can live on reduce in size.

6. What happens if we don't use electric cars and have more gas?

Electric cars, provided that they use clean energy to power them, are one way to reduce greenhouse gas emissions. However, we can walk, cycle etc. We should be thinking: Do we need to make journeys; perhaps, we could meet online? However, if we do not reduce and ultimately phase-out fossil fuels, then surface temperature on the Earth will continue to rise.

7. How much deforestation occurs within the Amazon Rainforest per month?

It is estimated that about 900 km² are lost each month.

8. What are you most afraid of about climate change?

Extreme weather and how this will affect all people in these parts of the world, but particularly those who are disadvantaged, and how it also affects animals and plants and their ecosystems.

9. How many trees are cut down each year?

It is estimated that around 900 million trees are cut down each year.

10. Do you know how many trees have been cut down in the UK?

Trees are cut down for the benefit of other trees and estimates vary, but 20-40,000 per year is an often-quoted number.

11. In your opinion, are we taking serious action on climate change?

In some parts of the world and by some countries, businesses, and people. However, we need to do a lot more.

12. Why isn't the Government making electric vehicles cheaper?

It is not up to the Government to set the price, but if more people switch to electric cars their price will eventually come down. What Governments can do to encourage people to switch is to increase the number of fast charging points for electric cars.

13. Which type of tree sucks up the most CO₂?

In the U.K., deciduous trees like the oak are able to absorb a lot of CO₂.

14. If the world stops littering in the sea, how long will it take to reverse the negative effects?

This is difficult to estimate because the plastics in the oceans are very long lived, remaining for hundreds of years. We need to clean the worst affected areas up and remove the waste as soon as possible.

15. What happens if there is more CO₂ than oxygen?

Then the Earth would be like the planet Venus and the surface temperature would be too high for life to exist.

16. How long do you think it will take for everyone to switch to greener energy?

If it becomes cheap and easy to access, this could happen very quickly.

17. What would happen if everyone did one of the things – added solar panels or reduced car use, for example?

If everyone (in the world) contributed to saving at least one wedge, we would be able to get to the seven wedges needed quickly.

18. Does paint contribute to climate change?

The production of all chemicals requires energy and if that energy comes from burning fossil fuels, then yes it does.

19. Out of all the things we can do to help, which is the most effective?

We can all save energy and in particular for a school, we can make sure that our school is well insulated, and that we don't leave devices or lights on that we don't need. If we can, walk or cycle to school, or for those who can't, use public transport or car share. All of these changes will make a big difference. Maybe we can use the school grounds to plant trees and other plants? Perhaps we can grow fruit and vegetables at the school? This will capture CO₂ and will help us understand what fruit and vegetables can be grown locally and when they come into season.

20. What is the best way to save electricity in our homes?

Go round the house periodically and turn off devices that are not needed. Boiling a kettle uses a lot of energy relative to other activities, for example so only boil what you need.

21. Are any other planets impacted by climate change?

Venus experiences a so called 'runaway' greenhouse effect where the level of greenhouse gases (GHG) is so high that the surface temperature is many hundred °C (between 450-500 °C).