1) What is climate change?

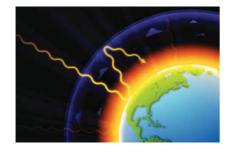
Climate change refers to an increase of the Earth's temperature.



2) Are greenhouse gases always bad?

No. If there was no carbon dioxide, methane or water vapour in the atmosphere, the Earth would be too cold to





The problem is that, humans are producing too many greenhouse gases. This is upsetting the balance and causing the Earth's temperature to rise above effective levels.

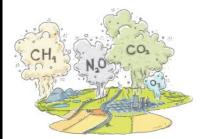
3) What will be the effects of climate change?

Upsetting the balance of the Earth's climate will cause



more extreme weather conditions, such as: stronger storms; more frequent floods; and an increase of wild-fires and droughts.

4) What causes climate change?



Climate change is caused by a rise in greenhouse gases. These include carbon dioxide, methane and water vapour. These gases absorb and trap heat, and therefore cause an increase in the Earth's atmospheric temperature.

5) How are we producing greenhouse gases?



Greenhouse gases can be produced in a variety of ways, such as: burning fossil fuels and coal for energy; log fires; grazing cattle; gases from factories and power stations; burning fuel for cars, aeroplanes and other transport; amongst others.

6) How will climate change affect humans?

We are likely to suffer from more frequent adverse and extreme weather



conditions such as hurricanes, and wildfires; sea levels will rise meaning coastal and low-lying towns and cities will be underwater; reservoirs may run dry; and certain crops may be more difficult to grow affecting our food supply.

7) How will climate change affect wildlife?

Many plant and animal species have adapted to be suitable to the climatic and environmental conditions of their



environment. Therefore, once these change the species is unable to survive there. Food chains will be affected and more and more species will become extinct as they will not be able to adapt quick enough to the changes in climate.

8) How will climate change affect the landscape?



More of the Earth's landscape will become drier and desert-like. Crops will be unable to be grown there and so there may be a shortage of food.

9) How will climate change affect the oceans?

A rise in atmospheric temperature will mean a rise in seas temperatures. This will cause icebergs and polar

ice to melt, thereby increasing sea levels. Much of the land we see today, may be underwater in the future.

Therefore, more of the world's population will need to live a smaller area of land.

10) Can we do anything to prevent climate change?

Absolutely. But we have to act now.



We can all play a part in helping our planet. If we all make a small change, these add up to a big change overall.

11) What can our parents do to prevent climate change?



Adults can choose electric cars; walk or cycle more rather than drive; use energy-efficient light bulbs; close windows if the heating is on; and buy products with less plastic.

12) What can large companies do to prevent climate change?



Large global companies can make a big change to climate change and greenhouse gas emissions, but this requires managers and directors who are passionate about helping the planet as these changes may cost them money.

They could use more **sustainable** products, renewable energy and invest in research or the invention of more environmentally friendly technology.

Sustainable means meeting our own needs without compromising the ability of future generations to meet their own needs.

13) How can we balance the need for energy with reducing climate change?

We need to invest in 'renewable energy.'

Renewable energy is energy that is collected from renewable resources, which are naturally replenished, including sources like sunlight, wind, rain, tides, waves, and geothermal heat.



This means that the energy source is not 'used up' like coal or gas, but has an endless supply without harming the environment.

This includes solar, wind, and hydroelectric power.

14) What can children do to prevent climate change?

Children can waste less; reuse or repair items; and recycle more.



This can include using both sides of paper; only taking what they need; turning the tap off when they brush their teeth; choosing reusable products and avoiding single-use plastic.

15) Why might the developing world need our help?

We are lucky to live in a country where we have what we need. Many other countries are poorer and do not have these luxuries. These are called 'developing countries.'

People in some developing countries are just trying to survive. Others are striving for a better quality of life and are just able to afford cars and electricity. Should we be able to tell them what they can and can't have



to reduce greenhouse gases, when we already have these? Is this really fair?

Developed (richer) countries maybe should help developing (poorer) countries to fund more environmentally-friendly products and renewable energy.

16) Do many countries use renewable energy?

Lots do, but could do much better. Governments need to invest in better research, technology and infrastructure.



Costa Rica is the world's leading 'green-energy' producer, creating 99% of its energy through renewable sources.