Science - Climate Change Project

Most of the energy we use in the UK today comes from **non-renewable energy sources**.

Non-renewable sources include oil, natural gas and coal (also known as **fossil fuels**). They take more than a human lifetime to replenish.

Energy is released by burning fossil fuels, often at big power plants. This process releases **greenhouse gases**, including Carbon Dioxide (CO_2), into the air which leads to **climate change**.

Climate change means more extreme weather events and an increase in average global temperatures, causing polar ice caps to melt, rising sea levels and habitat destruction.

The rising temperature can be seen in Wrexham too.

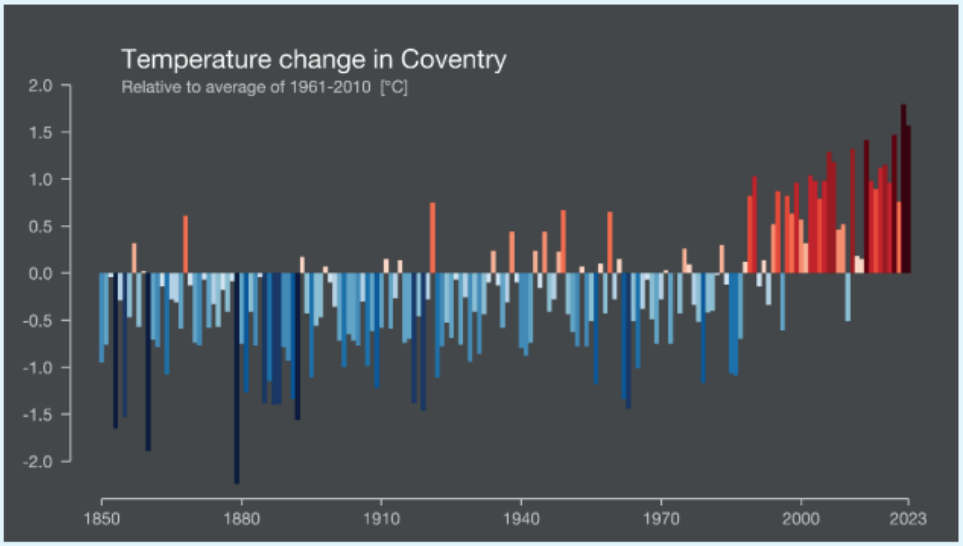

Figure 2 – How Temperature (°C) has changed in Coventry from 1850 – 2023 (Institute for Environmental Analytics, 2023)

Describe the trend that the graph shows.

What does the term “greenhouse gas” mean?

What are “fossil fuels”? Why do you think they are called this?

To reduce burning fossil fuels, the UK is now using more **renewable energy sources**.

Renewable energy is made from resources that nature will replace, like wind, water, and sunshine.

Renewable energy is also called **“clean energy”** or **“green power”** because it doesn't pollute the air or the water.

There are lots of different types of renewable energy sources – your job is to **research** these and fill in the following table.

Type of Renewable Energy Source	**Where does the energy come from?**	**Advantages**	**Disadvantages**
Wave Energy			
Hydroelectric Energy			
Solar Energy			
Tidal Energy			
Wind Energy			
Geothermal Energy			
Biomass Energy			
Biofuels Energy			
Hydrogen Energy			

Which renewable resource do you think would work best in Wrexham and why?

Sustainability in Schools Poster

There are lots of ways you can promote sustainability within schools. Use the internet to research ways that schools can become greener and more environmentally friendly. Then use the space below to make a poster promoting green initiatives that students at Darland High School could use to reduce their carbon footprints!