## Managing the Impacts

#### Learning Objective:

 Discover how the causes of climate change can be managed (mitigated)







## Learning Outcomes:

- Describe alternative energy sources
- Analyse how carbon capture works
- Evaluate political decisions on climate change

\*All these help to reduce the causes of climate change\*











100 charging points





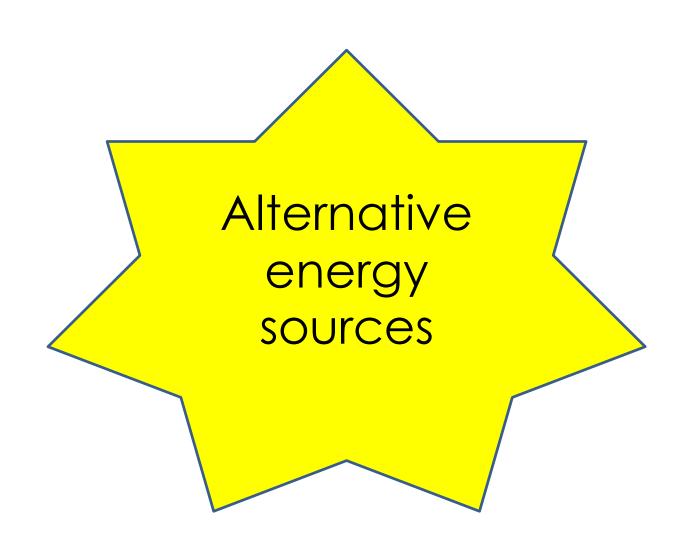
One tree per child at Primary schools



Discuss the reasons behind this?

# 87% of all humanproduced carbon emissions.

Burning fossil fuels (coal, oil and gas) to produce electricity, fuel vehicles and to power industry

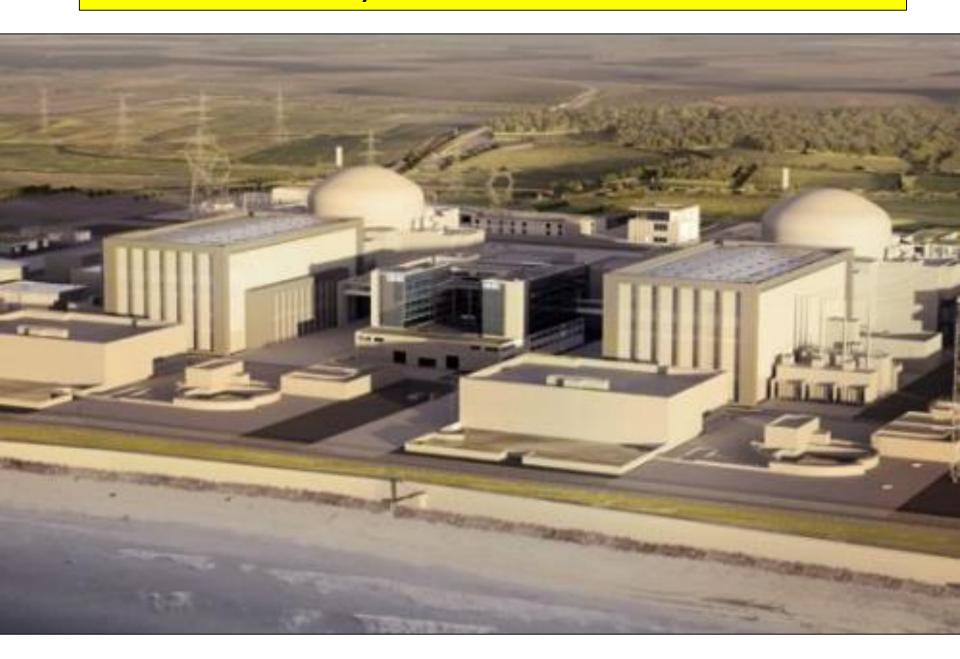


# Target for 2020 = 15% of UK energy from renewable sources.

Subsidies (money spent) for more wind energy have been cut by the government. **Describe what problems this might cause**.



## New Hinkley Point nuclear reactor



# Planting trees – improves the atmosphere above us, how?

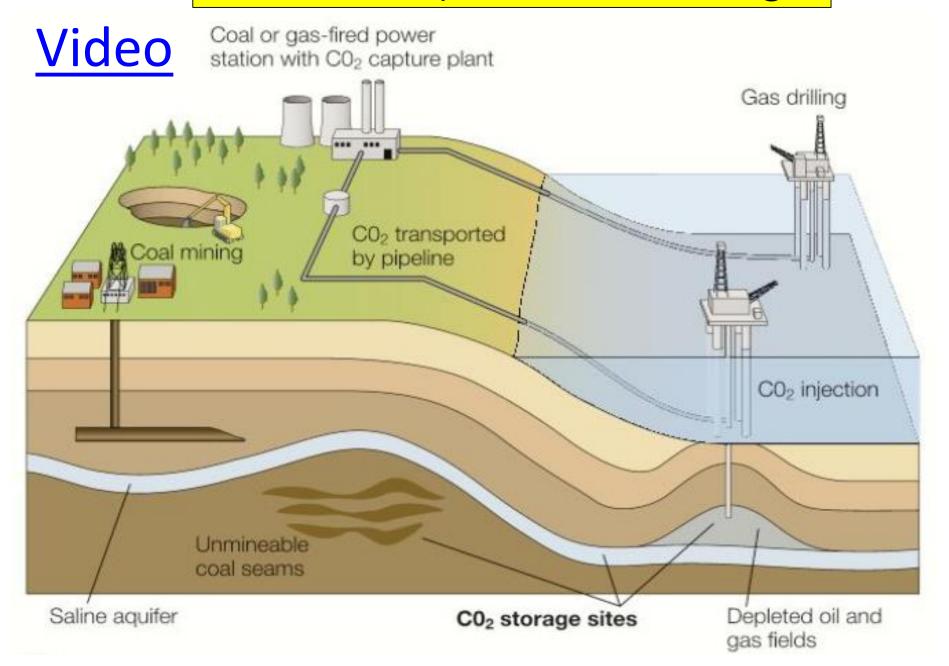


CO<sup>2</sup> levels?

Cooling effect?



#### Carbon capture and storage



Stronger tropical storms

More heat-related illness and disease, such as malaria Higher global temperatures affect food production and water supply

Increased risk of natural hazards, such as droughts and floods What are the global impacts of climate change?

Environmental impacts, such as desertification

Wildlife at risk as habitats and ecosystems change

**Economic** 

impacts, such as lower crop yields and damage to infrastructure

Rising sea levels threaten low-lying coastal areas

#### Paris agreement

#### 2005

The Kyoto Protocol – the first international treaty – became law. Over 170 countries agreed to reduce carbon emissions by an average of 5.2 per cent below their 1990 levels by 2012. Of the major greenhouse gas emitters, only the USA and Australia refused to sign the treaty.

#### 2009

World leaders met in Copenhagen to consider international agreements on tackling climate change beyond 2012. The outcome was the Copenhagen Accord. It pledged to reduce emissions with financial support for developing nations to help them cope with the impacts of climate change. But there was no legally binding agreement.

#### 2015

Paris Agreement 2015 – 195 countries adopted the first ever universal and legally binding global climate deal.

- To peak greenhouse gas emissions as soon as possible and achieve a balance between sources and sinks of greenhouse gases in the second half of this century.
- To keep global temperature increase below 2°C and limited to 1.5°C above pre-industrial levels.
- To review progress every five years.
- US\$100 billion a year to support climate change initiatives in developing countries by 2020, with further finance in the future.

There have been criticisms that many of these agreements are 'promises' or aims and not firm commitments.

## **Uh oh Trump**



# 'International agreements are critical in the challenge to reduce global carbon emissions' Use evidence to support this statement. (4 marks)

- Issues about carbon emissions are global, and solutions require international cooperation.
- Carbon emissions affect the atmosphere and ignore political boundaries.
- Under the Kyoto Agreement, only 16 countries reached their targets (the UK did not). The Agreement was less effective because the USA refused to sign up.
- None of the targets set by the Copenhagen
  Agreement in 2009 were binding on any country.
- Following the 2015 Paris Agreement, all countries are required to limit emissions, with regular reviews.
- Financial support will be given to poor nations to help with initiatives to cut emissions and manage

- the impacts of extreme weather, but many say it will not be enough.
- Even if all countries meet their targets, scientists predict global temperatures will still rise by about 3°C.
- Not all the agreement is legally binding, so countries could go back on their commitments in future.
- International agreements may not be the solution to climate change, but they are better than nothing.