



# Saving the world

**ELECTRIC POWER**  
In 2015, the first electric-powered plane flew across the English Channel from the UK to France.

It's not all bad news for our planet.

Reading about climate change can be alarming. The world's leading climate scientists agree that global temperatures are increasing and sea levels are rising. However, there's plenty to be positive about. We know far more about what needs to be done to tackle the challenge than ever before, and there are lots of passionate people who are taking action. Read on to find out more.

## What is climate change?



As ice melts, the seas rise.

Climate change refers to the long-term changes in weather patterns, and human activities such as burning fossil fuels (coal, oil and gas), farming and cutting down forests are major causes. This leads to higher temperatures around the world (known as global warming) and extremes in weather, including storms and heatwaves. It melts the ice in the Arctic and Antarctica, causing sea levels to rise, which puts some parts of the world at risk of flooding.

## So what needs to be done?



We need to use cleaner forms of transport.

Climate scientists say that the No.1 way to prevent further climate change is to produce zero carbon emissions by 2050. Carbon emissions are gases that are released when fossil fuels are burnt. There are several ways to achieve this, such as using cars and planes less and planting more trees, which absorb carbon. A huge factor is using cleaner energy – also known as renewables. The good news is that this is becoming cheaper all the time.



**DID YOU KNOW?**  
Around 30% of the UK's energy production comes from renewable sources, which include solar power, wind turbines and hydro (water) power.

## What is renewable energy?

Renewable energy creates less pollution and comes from sources that are replaced naturally, like wind, solar and water. Some countries are using it more and more. Between 1990 and 2017, UK emission levels went down 43% thanks to renewables.



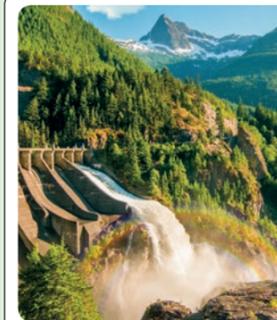
### Wind power

The UK has some of the biggest wind turbines in the world. One turn of the blades can power a house for a day. The wind makes the blades turn, which spins a rotor to generate electricity. In 2018, 17% of the UK's electricity was produced by wind power.



### Solar power

Solar power converts the light from the Sun into energy. When sunlight shines on a solar panel, it reacts with the silicon crystals inside to produce an electric current. In 2018, 3.8% of the UK's electricity came from solar power, up from 0.6% in 2013.



### Water power

The motion of water can be converted into power. Waves, tides and the water stored by dams can all be used to generate electricity. Huge amounts of water can be used at a time. In 2018, 1.5% of the UK's electricity came from this source.

## Meet the campaigners



Thunberg has inspired students.

### Greta Thunberg

Greta Thunberg, who is 16 years old and from Sweden, has inspired protests by millions of students. It all started last year, when Thunberg skipped school to protest against her government's lack of action to solve the problem of climate change. "I can't vote," she said, "so (protesting) is one of the ways I can make my voice heard." Thunberg is vegetarian and travels by train to minimise pollution.

### Sunrise Movement



Members of the group.

The Sunrise Movement based in the US describes itself as "an army of young people to stop climate change". They are putting pressure on politicians to create laws that will benefit the environment. One member, Saya Ameli, told *The Guardian* newspaper, "We may be young, but we are not naive. We understand the real-life consequences of climate change on our present and future, and we've decided to do something about it."

### Extinction Rebellion

An organisation called Extinction Rebellion has been in the news recently for its large protests in London. Some protesters were arrested for obstructing roads and damaging property. The group has called on the Government to pass laws that mean the UK reaches zero carbon emissions by 2025.

