There are two types of energy – renewable and non-renewable. Non-renewable energy will run out one day and so scientists and engineers are trying to find other ways to power the planet. What are they and how effective are they?

What is the difference between renewable and non-renewable energy?

- Non-renewable energy is most commonly used today. It uses fossil fuels such as oil, gas and coal. However, the problem is that as the resources are used up they cannot be replaced.
- There may come a time when we run out of gas or coal and so won't be able to manufacture electricity. This means we won't be able to heat and light our homes and businesses.
- Renewable energy will never run out. It uses the Sun, wind and water and can always be replaced.

Wind power

- For hundreds of years, wind power has been a source of energy. It powers windmills and also helps dry the washing if it is outside on a windy day.
- Scientists and environmentalists have now come together to build wind farms.
- Have you ever looked out to sea or across a field and seen the blades of large turbines rotating in the wind?
- These wind farms are seen as the future as far as manufacturing electricity is concerned.
- The wind turns the blades which is then converted into electricity and stored.

Solar power

- The Sun heats and lights the Earth and scientists have found out that, like wind, it can be used to make electricity.
- Have you ever seen shiny glass panels on the roofs of houses near you? These are called solar panels.
- They contain little cells that are activated by the Sun. Electricity is then formed and stored in batteries that are attached to the cells.

Find out more about renewable energy

- By 2020, the aim is for 700,000 houses in the UK to be fuelled by solar panels. If you were to debate renewable energy, what would be the arguments for and against it?
- The UK Government is supporting nuclear energy because it could help reduce carbon emissions. Find out all you can about nuclear energy and think about whether it is a good idea.