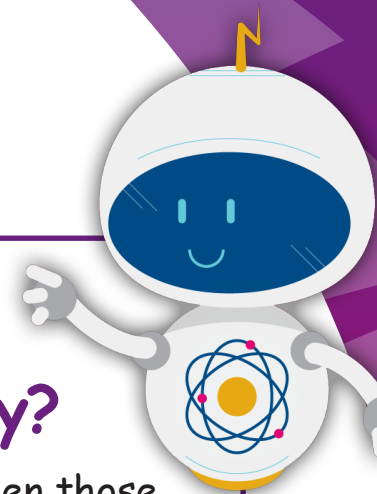




# Nuclear Energy

Activity sheet:  
Comprehension



## Making electricity!

Every time we plug something in or turn on a switch, we're using electricity. It comes into our homes through cables, from power stations across the country.

Most electricity is produced by turning a wheel called a turbine. The turbine can be turned using water, wind or steam. Each turn moves a machine called a generator, which then makes electricity.

When it is steam turning the turbine, this is produced by boiling water. The water is heated using fuels such as gas, coal or biofuel, or by the energy released from nuclear fuel.

Nuclear fuel doesn't create carbon dioxide gases like some other fuels do. That makes it a great fuel for creating electricity, because it does less damage to our planet.

## But how does nuclear fuel produce its energy?

It contains millions of tiny atoms. When those atoms are split, heat energy forms. This activity is called fission. The newly split atoms 'bump' into other atoms, causing them to split too. This is called a chain reaction - and the more atoms split, the faster the reaction becomes, creating more heat.

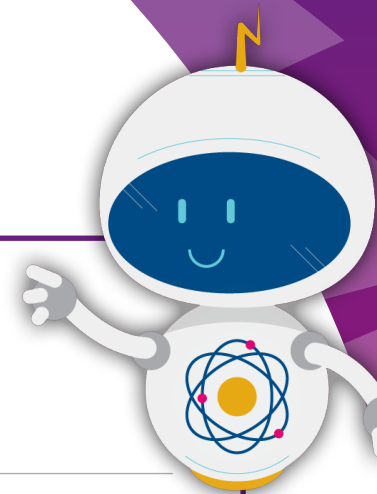
Nuclear energy is made in a power station, where fission happens inside a nuclear reactor, which controls the speed of the chain reaction to make just the right amount of heat needed. The heat released by the fuel boils the water, making the steam that turns the turbine.

This generates electricity which is sent to the power stations and through cables into our homes, ready for us to use - every time we need it!



# Nuclear Energy

Activity sheet:  
Comprehension



Now you've read about nuclear energy:

Fill in the blanks

- Electricity comes into our homes through \_\_\_\_\_
- The wheel that turns to generate electricity is called a \_\_\_\_\_
- Nuclear fuel does not create \_\_\_\_\_ dioxide gas
- Atoms splitting and releasing heat is called \_\_\_\_\_
- Atoms bumping into other atoms and making them split is called a \_\_\_\_\_ reaction

List a few of the things in your home that use electricity

---

---

Why do you think it might be important to protect our planet?

---

---

---

