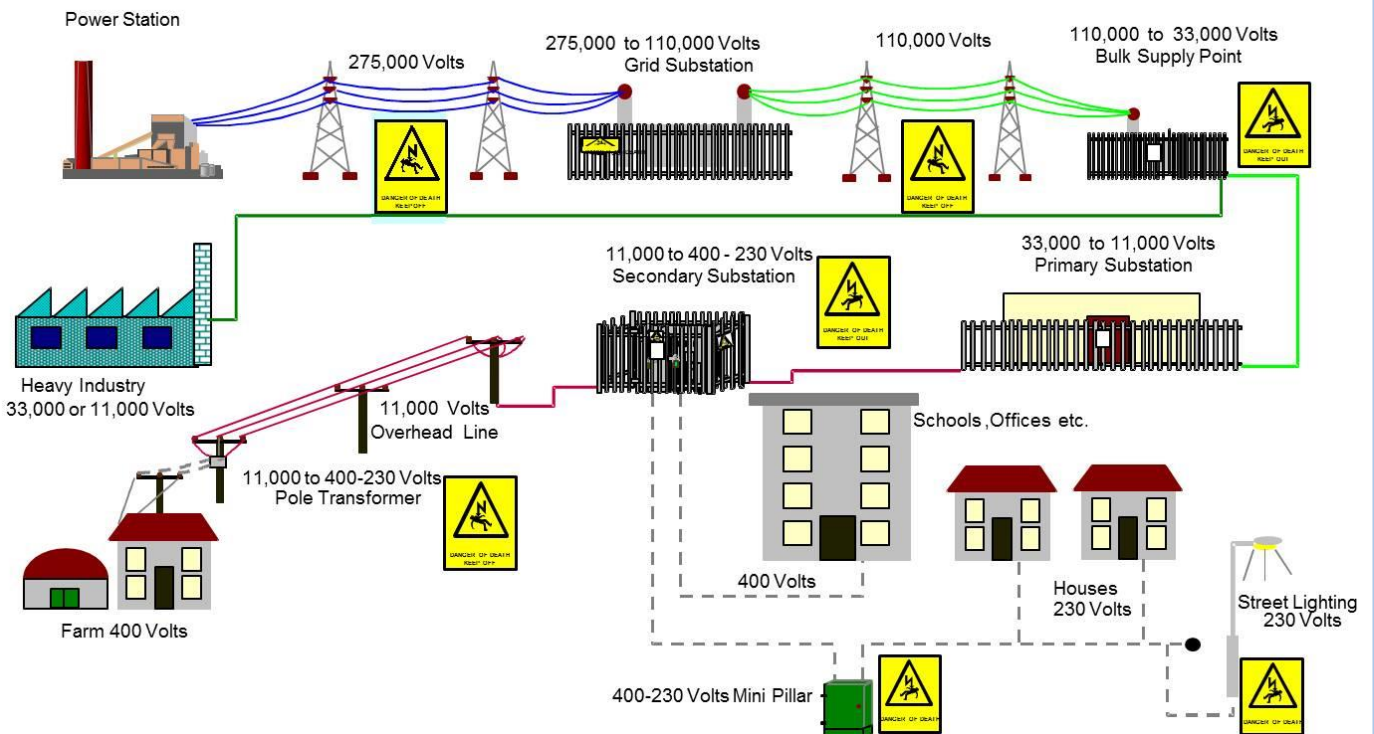




Kid-safe

The Journey of Electricity



Pylons, substations, Poles and Mini-Pillars will have a 'Danger of Death' sign, as shown.

This equipment is extremely dangerous and you could be electrocuted or killed!





Kid↔safe

POWER STATIONS

- ⚡ Electricity travels in a circuit that begins at a power station.
- ⚡ A thick coil of wire spins inside giant magnets at the station, moving the electrons in the wire and making electricity flow.

PYLONS

- ⚡ The electricity then travels from the power station through a grid of power lines.
- ⚡ Large transmission wires on tall pylons carry electricity to substations in different parts of Northern Ireland.

SUBSTATIONS

- ⚡ These substations contain equipment that reduces electricity's voltage so it can travel on smaller power lines that branch out, either on overhead power lines or underground cables.

LINES & CABLES

- ⚡ Overhead power lines and underground cables carry electricity to transformers on poles or secondary ground mounted substations where the voltage of electricity is reduced again so people in homes and businesses can use it safely.

MINIPILLARS

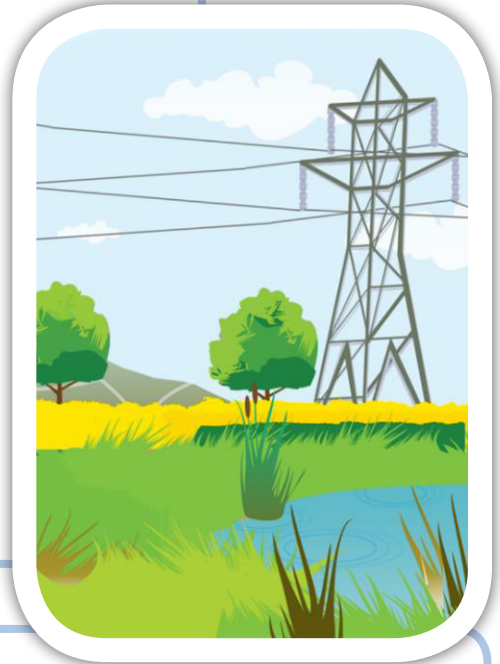
- ⚡ Minipillars can be used to distribute electricity in towns and cities.
- ⚡ Wires, called mains or service cables, are used to carry electricity from substations or minipillars to a meter box, which measures how much electricity is being used.



Kid↔safe

Pylons

- ⚡ Electricity is made at power stations and travels along overhead lines held up by pylons.
- ⚡ Although some people may think that pylons look like climbing frames they are extremely dangerous to climb.
- ⚡ There are yellow and black 'Danger of Death' signs to warn people that they could die by climbing them.
- ⚡ Always remember that Electricity can jump gaps!



Substations

- ⚡ Overhead lines bring electricity to substations.
- ⚡ A substation reduces electricity voltage so that it is easier and safer to transmit along overhead power lines to homes, schools and offices.
- ⚡ A substation may be protected by fences or within a building. To help you recognise a substation there will be yellow and black 'Danger of Death' signs at the entrance and around it.
- ⚡ You should **NEVER** go into a substation.
- ⚡ If you lose a football or toys at a substation you should **NEVER** try and get them but ask an adult to call our telephone number that will be found at the entrance of a substation and we will get it for you.





Kid-safe

Overhead lines

- ⚡ Once the electricity is broken down at substations it travels along overhead lines.
- ⚡ Overhead lines are live and carry high electricity voltages ranging from 230 volts up to 110,000 volts.
- ⚡ Yellow and black 'Danger of Death' signs will be clearly displayed on the wooden poles which support overhead lines.
- ⚡ If you are flying a kite, model aeroplanes or fishing, it is very important to make sure that you look up and look out for overhead lines.
- ⚡ A fishing rod or kite can conduct electricity and they do not have to touch the line for you to be electrocuted, as electricity jumps gaps.
- ⚡ If your kite or model aircraft is blown towards an electricity line you must:
 1. Let go immediately
 2. Never touch the string to pull the kite free, electricity can travel down the string and you could get electrocuted
 3. Keep yourself and others well away
 4. Get an adult to call us on 03457 643 643 for help and we can safely remove it.



If you leave it and say nothing someone else could get hurt or even killed!

Mini pillars

- ⚡ The last stage in the journey of electricity is from a mini-pillar to your home or school.
- ⚡ A mini-pillar is a grey metal box with a yellow and black 'Danger of Death' sign on the front of it.
- ⚡ Some people think it is fun to vandalise a mini-pillar and try to open it but this is very dangerous as you could be electrocuted or killed.





Kid↔safe

Safety Quiz

1. Always remember to look out for overhead lines before flying your kite and fishing.
What direction should you look?

Look Up, Look Out

Look Down, Look Out

Look Out, Look Right

Look Left, Look Right

2. On all NIE electrical equipment there is a warning sign. Can you complete the warning sign?



DANGER OF D _ _ _ _

3. What should you do if you drop something into a substation?

.....
.....

4. Is the electrical power in a substation the same as the power in your home and why?

.....
.....

5. Can electricity jump gaps?

Yes No



Kid↔safe

Quiz Answers

1. You should always **Look Up and Look Out** for overhead electricity lines.
2. Danger of **DEATH**
3. **NEVER** climb into the substation. On every substation there is a white sign with a telephone number and a substation name. Telephone the number and NIE will come out and retrieve your belongings.
4. **No**, the electricity in the substation is much more powerful than in your house. The substation acts like a mini factory, breaking down the electricity into a smaller voltage so that it can be used safely in your home.
5. **Yes**. You do not have to touch the overhead electricity wires; you just have to go near them as electricity arcs.

