

POWERLINES

Powerlines allow electricity to make its journey from the power station to your home, school or local business.

Powerlines are made of conductive material so they can transport different voltages of electricity, ranging from 132 000 volts leaving the power station down to 240 volts entering your home.

Powerlines are normally made from copper and aluminium. Normally combinations of these metals are used to give the wire strength while still maintaining conductivity.

In some towns you can't see powerlines. This is because the powerlines are underground. They are made of conducting materials like copper or aluminium but are coated in thick insulating polycarbonate. This is a combination of insulating plastics that protect the wires and contain the flowing electricity.

Above ground powerlines are supported by poles of various designs and sizes.

The types of poles you may see include:

- wood
- steel
- reinforced concrete
- steel lattice towers

Have you ever noticed that when you look at overhead powerlines sometimes you see three lines and other times you see four? This is because some powerlines are transporting high voltage electricity and others low voltage. If you count three powerlines and can see large insulators holding the wires, then the electricity will be at a high voltage. If you count four powerlines and can see small ceramic 'mushroom' looking insulators holding the wires, then these powerlines will be transporting low voltage electricity.

Have you seen poles like this around your neighbourhood?



SAFETY AROUND OVERHEAD POWERLINES

The electrical voltage in your house is 240 volts. The electricity in powerlines and power stations is even more. Remember to always be careful of electricity, even if you think it is a low voltage.

When you are outside, watch out for powerlines. Electricity's main aim is to travel to Earth. It will take whichever path is the quickest to get there. So be careful when flying kites that you stay far away from any powerlines or poles. Do not climb trees or fences if they are near powerlines. If you see a tree growing into a powerline, tell an adult who can make sure the tree is safely cut away from it.

If you see a fallen powerline, never go near it. They may look harmless, but they could be deadly. Always assume that a fallen powerline is live and carrying electricity. Stay safe by keeping well away from them and warn others by telling an adult who will call Horizon Power immediately on 13 23 51.

