



Electricity & Circuits — Year 6 Science

A guide for parents · Australian Curriculum

- ✓ **You can help!** You do not need to know all the answers. The best way to help is to ask questions and listen to your child explain their thinking. Just 10 minutes of talking about learning each week can make a big difference.

Why are we learning this? Power in our community

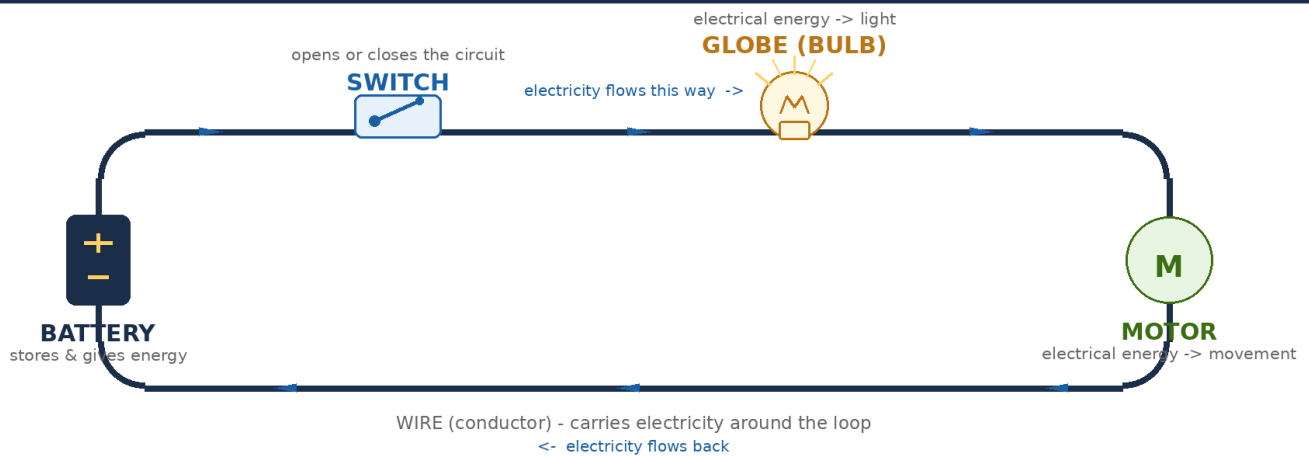
Electricity is part of everyday life in remote communities — from the solar panels on the school roof to the generator that keeps the health clinic running. Understanding circuits helps your child know how energy gets from a power source to the lights, the fridge and the TV. It also helps them stay safe around power points and wires. Knowing what conducts electricity (like metal and water) and what doesn't (like rubber and plastic) is really important knowledge for life up here.

WHAT YOUR CHILD IS LEARNING — BY THE END OF YEAR 6 THEY CAN:

✓ Name the parts of a circuit	✓ Explain what each part does
✓ Describe how electrical energy changes into light, sound, heat or movement	✓ Identify conductors and insulators

HOW A CIRCUIT WORKS — THE PARTS AND HOW THEY CONNECT

How a simple circuit works



Battery

Stores & gives energy to the circuit

Globe / Bulb

Changes electrical energy into light and heat

Switch

Turns the circuit on or off

Wire

Carries electrical energy around the loop

ENERGY CHANGES — ELECTRICAL ENERGY BECOMES SOMETHING NEW



Lamp

Electrical energy changes into light and heat



Buzzer

Electrical energy changes into sound



Fan

Electrical energy changes into movement

CONDUCTORS & INSULATORS

Conductors — let electricity through

Electricity can move through these:

Metal spoon · Coins · Keys · Copper wire

Insulators — block electricity

Electricity does not move easily through:

Plastic · Rubber · Wood · Glass

Easy 10-Minute Activity

Walk around your home and find 3 things that use electricity. For each one, ask your child:

- ? What does it do?
 - ? Where does the electricity come from?
 - ? Does it make light, sound, heat or movement?
- Try:** lamp, fan, television, microwave, phone charger.

Questions to ask your child at home

- > What does a battery do?
- > Why does a circuit need to be complete?
- > What does a switch do?
- > What is the difference between a conductor and an insulator?
- > What happens to electrical energy in a light bulb?
- > Which things in our house are conductors? Which are insulators?
- > What energy does this appliance make?

KEY WORDS

Word	Meaning
Circuit	A path that electricity travels around
Battery	Gives energy to the circuit
Wire	Carries electrical energy
Switch	Turns the circuit on or off
Light Bulb	Changes electrical energy into light and heat
Conductor	Lets electricity move through it (e.g. metal)
Insulator	Stops electricity moving through it (e.g. plastic)

What school will check

Your child needs to name circuit parts, explain what they do, and describe how electrical energy moves and changes.

Key words to know

Circuit · Battery · Wire · Switch · Bulb · Conductor · Insulator · Energy · Transfer · Transform

Try it at home!

A simple circuit kit costs around \$5-\$10 at a hardware shop. Ask your child to make a bulb light up!