9 Home circuits

Your home electricity supply makes use of the circuits and fuses shown on the previous pages.

The electricity running through the wires in your house uses all of the ideas you have seen in the earlier parts of this book. In particular you need to remember about parallel circuits (page 12) and fuses (page 16). In Pictures 1 and 2 you see all of these ideas put to good, safe use.

Supply

The electricity supply company connects your home to the cable in the street through a fuse box (**A**). This is to prevent an electrical problem in your home from causing problems to other homes nearby, or vice versa.

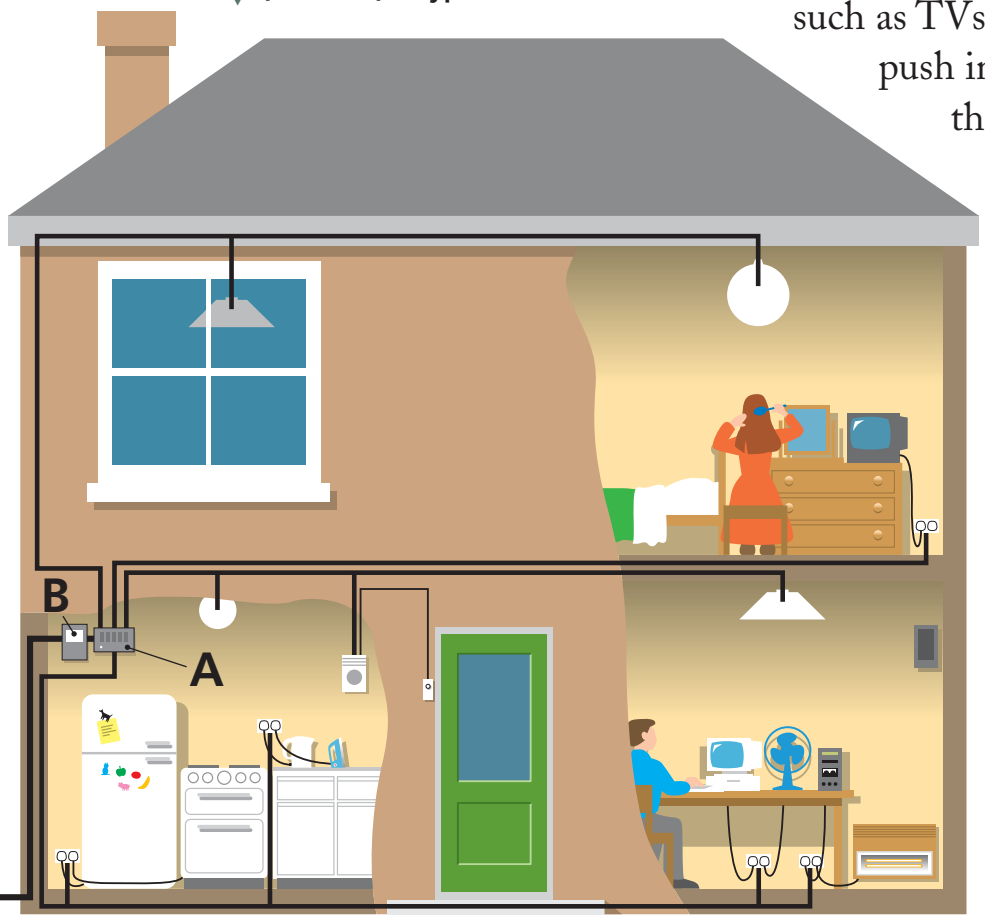
Meter

The meter (**B**) records the amount of electrical energy you use in your home every second. You can see how much you are using by watching the numbers change on the meter.

Wiring

Two wires go to every item that needs electricity (**C**). All of the portable items, such as TVs and irons, have plugs that push into wall sockets. In Picture 2 the **LIVE WIRE** (shown brown) brings electricity to the appliances, the **NEUTRAL WIRE** (shown blue) carries it away. The wire shown in green is also used in some circuits and is an **EARTH WIRE** (**D**). This is a protection device to carry electricity safely away if a fault develops. The circuit for the sockets and the circuit for the lights are both examples of parallel circuits.

▼ **(Picture 1) A typical home circuit.**



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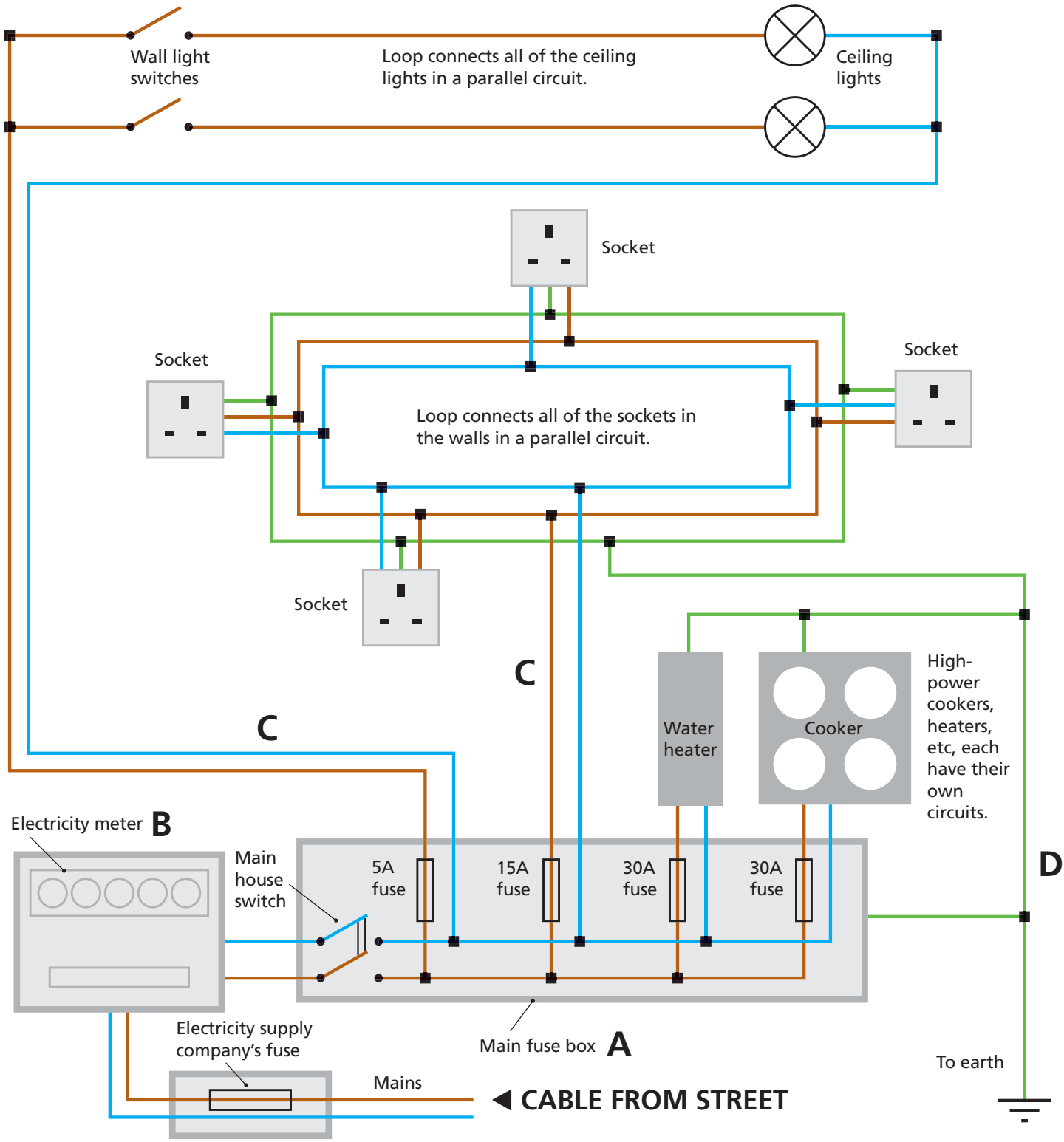

▲ **(Picture 2) This wiring diagram shows the parallel circuits used to feed electricity through a home.**

KEY

Live

Neutral

Earth

Summary

- **The wiring in your home works on the principle of parallel loops.**
- **Each type of loop is protected by a fuse.**