

Burning Out Components

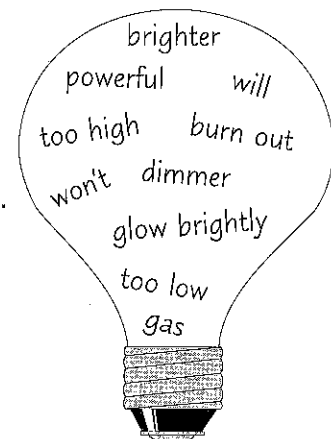
*Too much power (too high a voltage) can cause a component to burn out.
This is when a component gets too hot and stops working.*

1. Fill in the gaps in the sentences below about why bulbs **burn out**.
Use words from on the bulb.

When you connect a more cell in a
circuit with a bulb, the bulb will glow

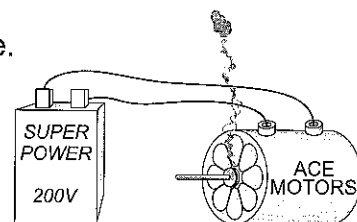
But if the cell's voltage is,
the bulb gets really hot and will

The bulb work again after that.



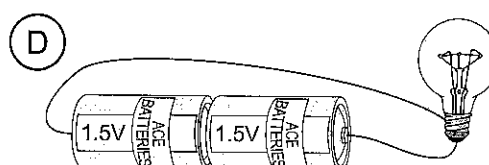
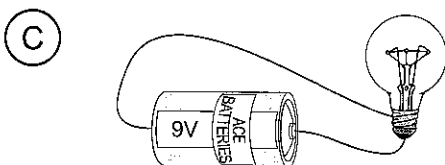
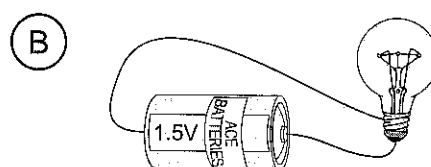
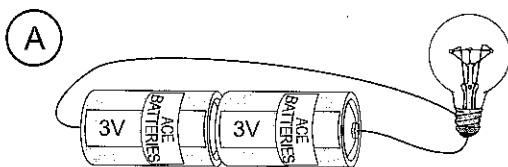
2. **Motors can also burn out.** Put a tick (✓) next to any sentences below that are **true**.

- ☐ You can speed up a motor by using a cell with a lower voltage.
☐ If a cell has too high a voltage, the motor will burn out.
☐ If a motor burns out it will still work.



3. Here are some circuits that contain **3V bulbs**.
Write '**glows**' or '**burns out**' to describe what the bulb will do in each circuit.

3V bulbs burn out at voltages higher than 3V.



INVESTIGATE

Have a look at home for different objects that use batteries. What do you think would happen to each object if the batteries in them had voltages that were too high?