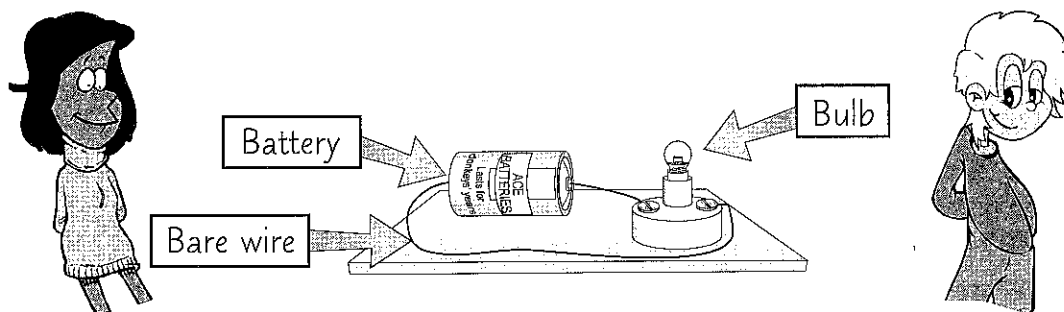


Using Circuits Safely

Abe and Belinda are doing some **experiments with circuits**.
Here's a picture of one of their circuits:



One of their friends says it's **dangerous** to use **bare wires**. Belinda says that it can be dangerous to use bare wire, but that it's **safe in this experiment**.

1. Belinda forgets to say **why** it isn't dangerous for their experiment.
Put a tick (✓) next to the correct reason.

- ☐ They are using batteries and not mains electricity, so the voltage is low enough not to be dangerous.
- ☐ The batteries they are using are flat, so there is no electrical current at all.
- ☐ They are being very careful not to touch the bare wire.

2. Fill in the gaps in this sentence using some of the words in the box.

high mains always safe dangerous never sometimes kettle low

Bare wires connected to the are very

This is because the voltage is very

You should have bare wires on a mains electricity circuit.

3. Here's a list of **materials**. **Circle** the ones that would make **good insulators** for mains wire.

Rubber

Tin foil

Silver

Plastic

Copper

Why would the ones you've circled make good insulators?

INVESTIGATE

Make a poster to tell people about electrical safety. Include things like why you need to be careful, what sort of things you should never do and how you can use electricity safely.