Making a simple electric switch*

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1 NATURAL SCIENCES

2 Grade 4

3 ENERGY AND CHANGE

4 Module 34

5 MAKING A SIMPLE ELECTRIC SWITCH

5.1 Activity:

5.2 To make a simple electric switch

5.3 [LO 3.2]

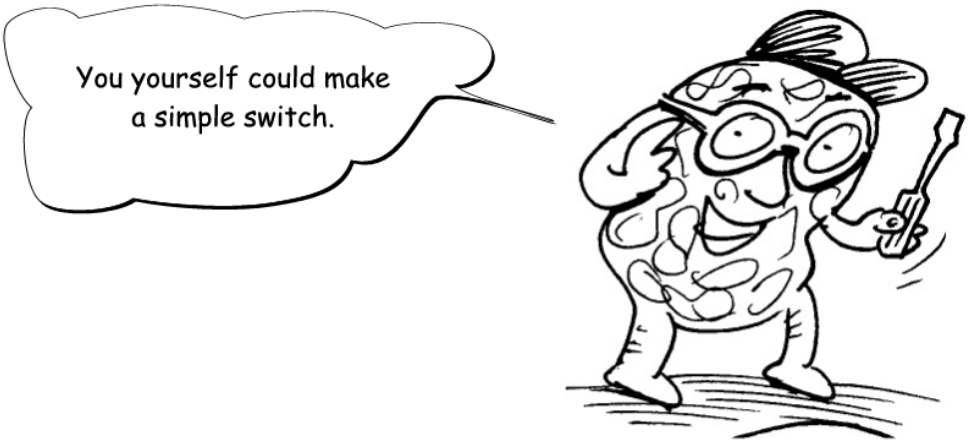

Figure 1

You will need:
A small block of wood: 8 cm x 4 cm x 1cm
A paper clip
Two drawing pins
Three 25 cm lengths of plastic-coated wire
A 4,5 volt light bulb in a socket
A 4,5 volt battery
A screwdriver

1. Attach a length of wire to each drawing pin. Push one drawing pin into the flat surface of the wooden block. Push the second drawing pin through the eye of the paper clip and also into the block of wood. The two drawing pins should be approximately 1 cm apart.
2. Be sure to keep the paper clip in position with the drawing pin, but in such a manner that it can be swivelled to touch the second drawing pin. This is the switch.

3. Test the switch by attaching the free end of the one length of wire to one end of the battery and connecting the third length of wire to the other end of the battery and the socket of the light bulb.

4.

Figure 2

Connect the free end of the wire of the switch to the free screw of the light socket.

5. If you swivel the paper clip to touch both drawing pins, the light bulb will glow. When you swivel the paper clip away from the second drawing pin, the light will go out.

Remember this: never touch bare electric wires!

Use red to colour in everything that is operated by means of electricity.

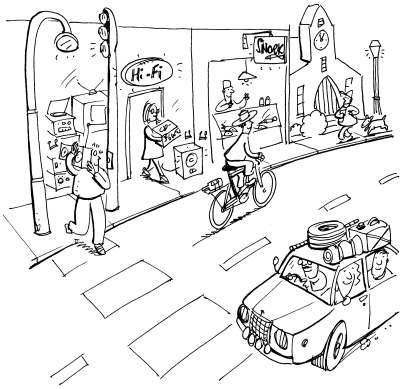

Figure 3

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6 Assessment

LEARNING OUTCOME 3: SCIENCE, SOCIETY AND THE ENVIRONMENTThe learner will be able to demonstrate an understanding of the interrelationships between science and technology, society and the environment.

Assessment Standard

We know this when the learner

3.2 understands the impact of Science and Technology.