

Science - Year 4

Electricity – Block 4E

It's Electric!

Session 5

Resource Pack

I can construct, and draw a labelled diagram of, an electrical circuit.

With a partner, make a working circuit that includes a buzzer and a switch.

Once you have finished it, draw a labelled diagram of the circuit on this sheet. Remind yourself of how to draw a scientific diagram of an electrical circuit by looking back at your previous work or by looking at the class science display.

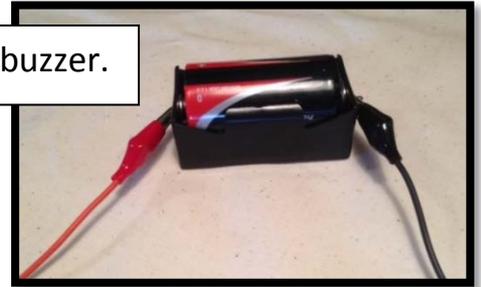
Once you have completed the circuit and the diagram, test your knowledge and remind yourself of some of the things we have learnt by reading the pages and playing the games on this website:

http://www.bbc.co.uk/bitesize/ks2/science/physical_processes/electrical_circuits/read/1/

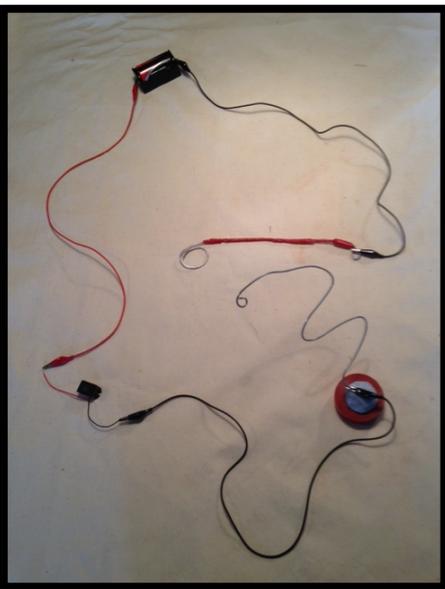
Instructions for making a simple buzz-wire game (for the teacher)



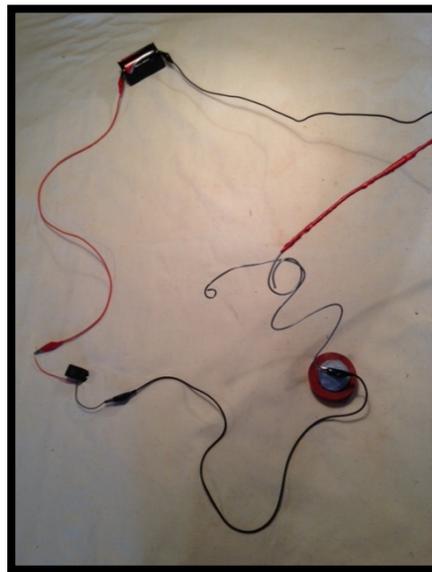
Make a simple circuit with a buzzer.



Make a hook using wire. Wind electrical tape around to create a handle. Twist the wire at the ends to stop the sharp point from sticking out. Make the loop at one end larger. Make a break in the circuit and add the hook in.



Using another piece of wire, bend it into a zig-zag shape. Stand it upright using clay. Join it at the base to the other side of the circuit.



Using a steady hand, move the loop along the zig-zag, trying not to touch the wire. If the loop and the zig-zag connect, the circuit will be complete and the buzzer will sound.

Some safety ideas to consider before setting the challenge of building the game;

Although the power from the battery will not be strong enough to shock us, it would be a good idea to create some sort of handle for the 'loop'.

When using wire cutters to cut the wire for the zig-zag, chn need a partner that will hold the wire on either side of the cut because small ends of wire might 'ping' off.

Fold the ends of the loop and zig-zag to make the sharp point at the end of the wire safe.