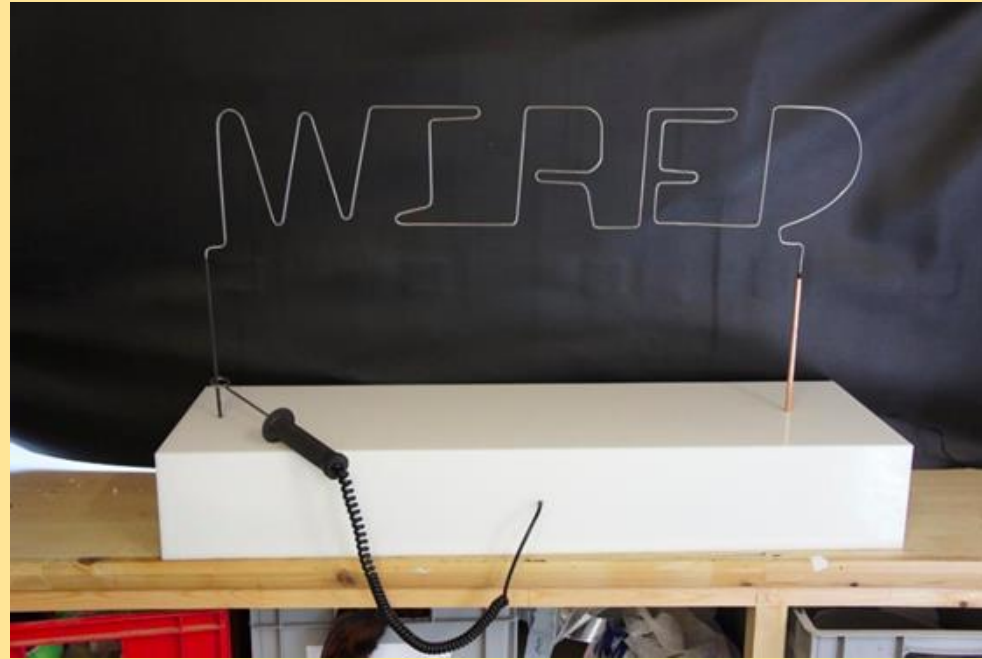January

L.O.: I can draw an electrical circuit for my game.

Last lesson, we created our own designs for a buzzer game.
This week, we need to start thinking about the electrical circuit we need to make the game work.
Think about what we have learned in Science this term.

What will we need?

Write a list of the components we will need to make our electrical circuit.

Here are some clues...
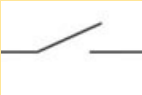
What could we use to turn our game off and on?

The electricity needs to flow around the circuit to make the buzzer sound.

If the hook you are holding does not touch the wire the circuit is not complete and the buzzer will make no sound.

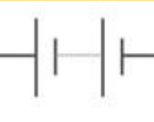| Symbol	Component	Image
	BULB (LAMP) — A component which lights up when electricity passes through it in a circuit	
	MOTOR — A component which moves (spins) when electricity passes through it in a circuit	
	BUZZER — A component which makes a sound when electricity passes through it in a circuit	
	WIRE — Plastic-coated electrical wire which conducts electricity around a circuit	
	SWITCH — Part of a circuit which can easily be opened or closed to control the flow of electric current	
	CELL – 1 battery — A safe power source. A store of chemical potential energy that can power a circuit	
	CELL – 2 batteries — Two cells used together to make a more powerful power source	

Task 1:

Match the electrical components to the correct circuit symbol and definition.

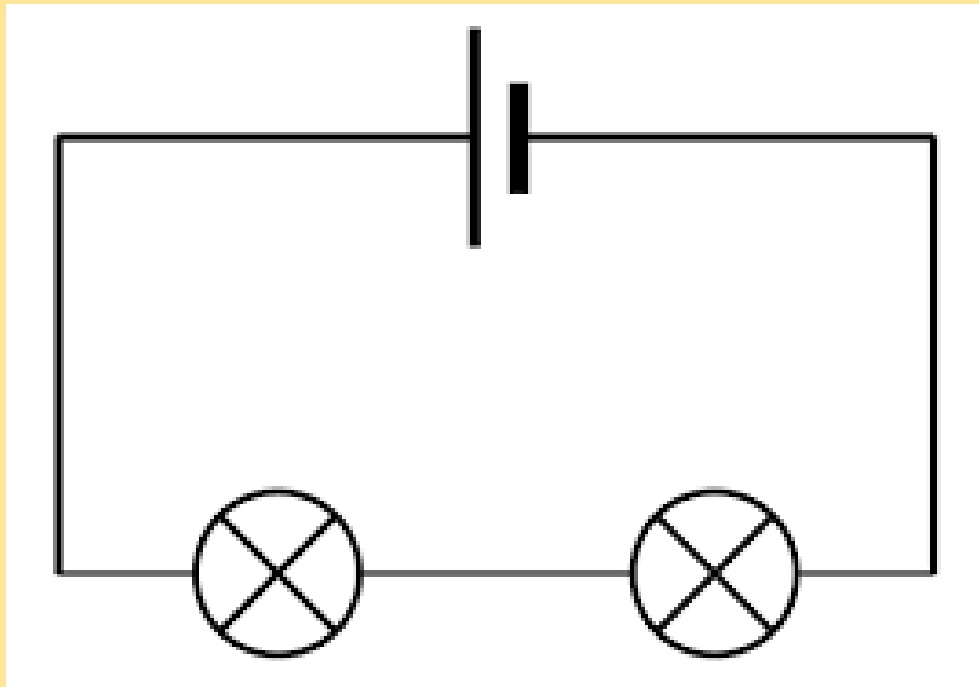Tick the components you will need for your circuit.

We will need:

Wire, a cell, a buzzer and possibly a switch.

Look at https://www.learningcircuits.co.uk/circuit builder

http://powerup.ukpowernetworks.co.uk/powerup/en/under-11/circuits/circuit-builder/

No, this is not a picture of a car! It is a diagram of an electrical circuit using symbols.

Task 2:
Draw the circuit diagram you will need for your game using electrical symbols.

The hook that the player will use will be part of the wire.

The switch will allow us to turn the game off : even if the hook touches the wire, the buzzer will make no sound.