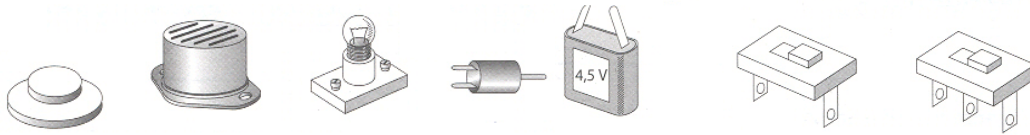


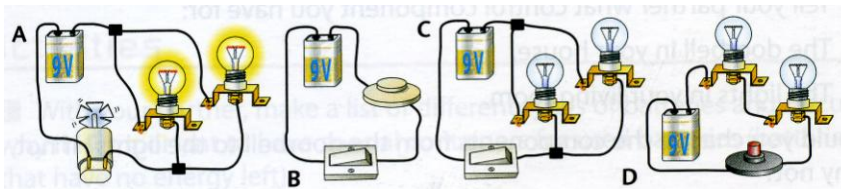
# Activities



Identify these components and draw their symbols.



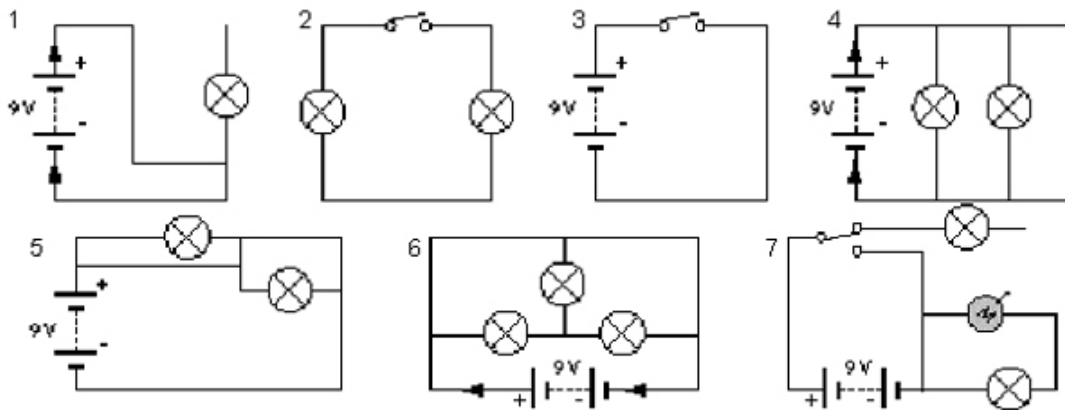
Draw diagrams with symbols for these circuits:



Imagine that you have these components: a light bulb, a motor, a battery, a circuit switch and wire. Join them in the way that we can provide power either to the light bulb or to the motor. Draw the diagram.

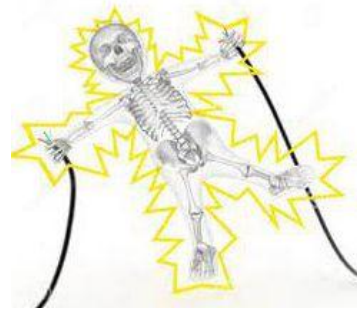


Explain why these circuits don't work and correct them.

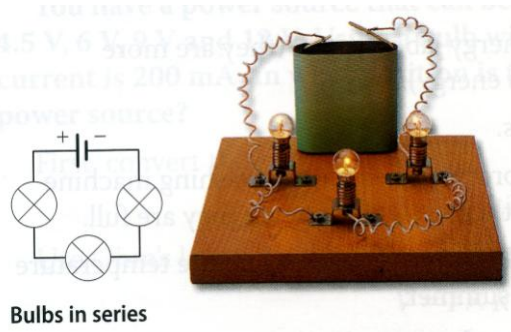




Find the information on the Internet and make a list of all the safety rules we must remember when we work with electricity in order to avoid an electric shock.



Set up a circuit like this at the workshop and answer these questions:

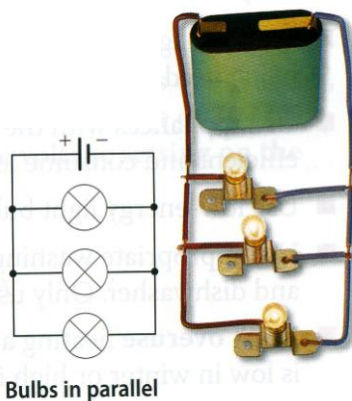


Bulbs in series

- Add a new battery to the circuit. What happens to the light bulbs? Why?
- What will happen if one of the light bulbs melts?
- Set up the same circuit with two light bulbs only. Will they glow more or less than before? Why?



Set up a circuit like this at the workshop and answer these questions:



Bulbs in parallel

- Add a new battery to the circuit. What happens to the light bulbs? Why?
- What will happen if one of the light bulbs melts?
- Set up the same circuit with two light bulbs only. Will they glow more or less than before? Why?
- Do the light bulbs in parallel glow more than in series? Why?



Calculate the energy consumed in kWh by a 1500 W iron connected for 1.5 hours.



For the following circuits, calculate the equivalent resistance and the values of  $V_{AB}$ ,  $V_{BC}$  and  $I_1$ ,  $I_2$ ,  $I_3$ .

