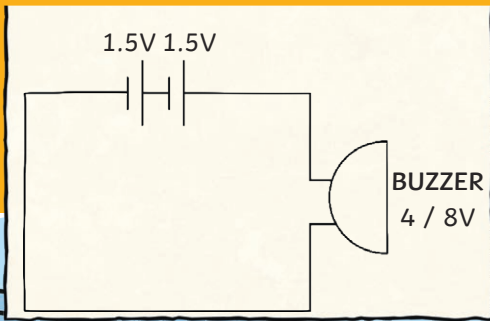


Year 6 Electricity Science Discussion Starter - Follow-On Activities

- Using the details from the question, ask children to draw a circuit that would make the buzzer turn on and off.
- Make a list of appliances and the voltage they require.
- Discuss how the effect of changing the voltage would have an effect on a motor and bulb.

We have lots of lovely resources to help you teach this topic

Will the Buzzer Make a Sound?



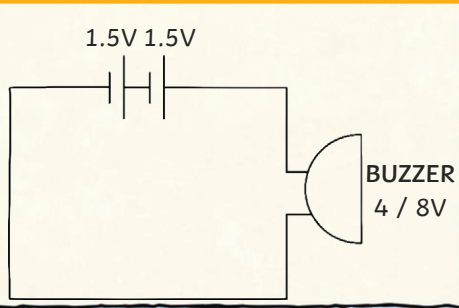
Yes, because it's a complete circuit.

Yes, the buzzer will make a sound because there are two cells. This will give the buzzer lots of power to work.

I think you need to add a switch to this circuit for the buzzer to make a sound.

If you add another cell, it adds up to 4.5V so the buzzer should make a sound.

Answers - Will the Buzzer Make a Sound?



This is a complete circuit but the buzzer won't work because there aren't enough cells to provide the correct voltage needed to make the buzzer work.

The buzzer won't work as it requires 4-8V to work and the cells only provide 3V.

You could add a switch to this circuit. A switch can complete (on) or break (off) a circuit. However, as the buzzer requires more volts than the cells provide, this wouldn't make a difference and the buzzer still wouldn't work.

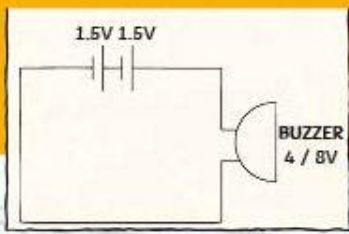
This answer is correct - three cells would provide 4.5V in total. The buzzer would sound but may be quiet as it requires between 4 and 8V to make a noise. If you included four cells in the circuit, this would provide 6V and would make the the buzzer sound louder. By increasing the number of cells to five, this would total 7.5V and the buzzer would make an even louder sound.

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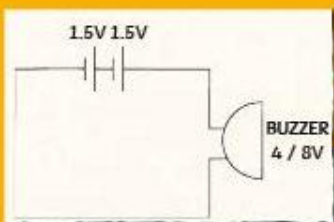
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Year 6 Electricity Science Discussion Starter - Teacher Guidance

This science discussion starter pack is designed to encourage children's scientific thinking. Included are two sizes of the discussion starter, a PowerPoint version and a follow-on sheet, giving you flexibility in the classroom.

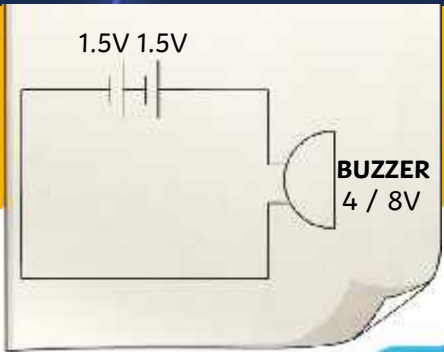
Before showing the discussion points, you could ask the question to your class for them to share initial ideas. The starter page with the children's answers could then be displayed for the whole class to see and discuss as a class. Alternatively, children could work in smaller groups to discuss the points.

Points for children to consider include which children do they agree with and why. They should explain if there are any statements that they disagree with and whether there are some they partially agree with.

It is important that while using this resource, any common misconceptions that children have are addressed during the topic. The most common misconception is that current, voltage and electricity are all the same thing.



Year 6 Science - Electricity Discussion Starter



Will the Buzzer Make a Sound?

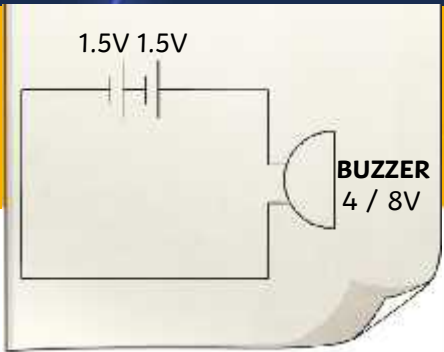
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