THE STRIVING

MUSLIM ACADEMY

Islamic and Academic Education

STAGE 6 · SCIENCE · ELECTRICITY

Electricity

Everything the questions ask about is taught on the page before them, so nobody has to know the science beforehand.

WHAT IS INSIDE

- How many cells
- Why components behave differently
- Circuit symbols
- Try it yourself
- How each one is worked

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3 topics · something to do at the end

Written for a parent teaching at home. No training assumed, and nothing else to buy.

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Why components behave differently

Read this first. Then answer the questions underneath.



Change one thing in a circuit and the components change with it.

More cells make a bulb brighter and a buzzer louder. More bulbs in the same loop make each one dimmer, because the same push is shared between them.

Longer or thinner wire makes a bulb dimmer, because the wire resists the electricity more.

A switch does not dim anything. It is either closed, and everything works, or open, and nothing does.

1. What happens with more bulbs in the same loop?
Compare it with more cells.

2. Why does longer or thinner wire make a bulb dimmer?
The reason is given.

3. What are the two states of a switch?
It has no middle setting.

4. WORK IT OUT **A bulb is dim. Give two different things that could be the cause.**
The panel names three causes of dimness.

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Quick check

One right answer each, and every answer is somewhere in this pack. Ring the letter.



1. **Circuit symbols What is the symbol for a bulb?**
   (A) So that anybody can read it (B) Volts (C) As straight lines with square corners (D) A circle with a cross inside it

2. **Circuit symbols How are wires drawn?**
   (A) A circle with a cross inside it (B) So that anybody can read it (C) As straight lines with square corners (D) 1.5V

3. **How many cells What voltage is usually printed on a cell?**
   (A) As straight lines with square corners (B) A circle with a cross inside it (C) 1.5V (D) So that anybody can read it

4. **How many cells What is the strength of the push measured in?**
   (A) 1.5V (B) Volts (C) As straight lines with square corners (D) So that anybody can read it

5. **Circuit symbols Why is a circuit drawn with symbols?**
   (A) As straight lines with square corners (B) A circle with a cross inside it (C) So that anybody can read it (D) 1.5V

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How each one is worked

The answers to the **work it out** questions are model answers. A child who says something different and can show you where on the page it came from has done the work.



HOW MANY CELLS

1. What is the strength of the push measured in?

1. The passage says the strength of that push is measured in volts.
2. So the answer is **volts**.

Answer: **Volts**

2. What voltage is usually printed on a cell?

1. The passage says a cell has a voltage printed on it, usually 1.5V.
2. So the answer is **1.5V**.

Answer: **1.5V**

3. What happens with two cells instead of one?

1. The passage says a bulb becomes brighter and a buzzer becomes louder.
2. So that is the answer.

Answer: **A bulb becomes brighter and a buzzer becomes louder**

4. WORK IT OUT **Why does a bulb burn out with too many cells?**

1. More cells mean a greater push.
2. The passage says more electricity passes through the bulb than it was built for.
3. So it fails.

Answer: **Because more electricity passes through it than it was built for**

WHY COMPONENTS BEHAVE DIFFERENTLY

1. What happens with more bulbs in the same loop?

1. The passage says more bulbs in the same loop make each one dimmer.
2. So that is the answer.

Answer: **More bulbs in the same loop make each one dimmer**

2. Why does longer or thinner wire make a bulb dimmer?

1. The passage says the wire resists the electricity more.
2. So that is the answer.

Answer: **Because the wire resists the electricity more**

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SAMPLE PAGES

You have read a few pages. The pack is longer.

What you are holding is a short sample, taken from different parts of the pack so that you can see how a week is planned and what a child is actually asked to do, before you decide.

The complete pack, and the rest of the academic materials, are on our website: schemes of work for a parent teaching at home, and practice packs for the skills children get stuck on.

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Members of the homeschool community do not buy these. If you have joined the community, the pack for the term you are working on is given to you at no cost.

Our Islamic Education classes are free. These packs are part of what pays the teachers who teach them.