THE STRIVING

MUSLIM ACADEMY

Islamic and Academic Education

STAGE 4 · 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

- Things that run on electricity
- A circuit
- Switches
- Conductors and insulators
- Try it yourself
- How each one is worked

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4 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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A circuit

Read this first. Then answer the questions underneath.



Electricity only flows round a complete loop. That loop is called a circuit.

A simple circuit has a cell to push the electricity along, wires for it to travel in, and something for it to do work in, such as a bulb or a buzzer. A battery is two or more cells together, though most people say battery for both.

If there is any gap anywhere in the loop, nothing happens. A bulb that is not part of a complete loop with the cell will not light, however good the bulb is.

1. What is the complete loop called?

One word.

2. What does a cell do?

Look for the word cell.

3. What is a battery?

The passage defines it.

4. WORK IT OUT **A bulb is new and the cell is new, but the bulb does not light. What is the most likely reason?**

What does the passage say stops everything?

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Quick check



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

1. **Things that run on electricity What is an appliance?**
   (A) A machine that does a job for you (B) Plastic, rubber, wood, glass and dry air (C) Two or more cells together (D) Copper

2. **A circuit What is the complete loop called?**
   (A) A circuit (B) Lets electricity pass through it (C) Two or more cells together (D) A machine that does a job for you

3. **Conductors and insulators What does a conductor do?**
   (A) Lets electricity pass through it (B) Two or more cells together (C) Plastic, rubber, wood, glass and dry air (D) Push the electricity along

4. **A circuit What is a battery?**
   (A) A machine that does a job for you (B) Push the electricity along (C) Two or more cells together (D) A circuit

5. **Conductors and insulators Name three insulators.**
   (A) A circuit (B) Plastic, rubber, wood, glass and dry air (C) Lets electricity pass through it (D) Copper

6. **A circuit What does a cell do?**
   (A) Push the electricity along (B) A circuit (C) A machine that does a job for you (D) Plastic, rubber, wood, glass and dry air

7. **Conductors and insulators Which material is usually used for wires?**
   (A) Push the electricity along (B) Plastic, rubber, wood, glass and dry air (C) A machine that does a job for you (D) Copper

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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.



THINGS THAT RUN ON ELECTRICITY

1. What is an appliance?

1. The passage says an appliance is a machine that does a job for you.
2. So that is the answer.

Answer: **A machine that does a job for you**

2. Name three appliances that plug into the mains.

1. The passage says a kettle, a fridge, a washing machine, a television, a lamp.
2. Any three of those is right.

Answer: **A kettle, a fridge, a washing machine, a television, a lamp**

3. Name three appliances that run on a battery.

1. The passage says a torch, a phone, a remote control, a wall clock.
2. Any three of those is right.

Answer: **A torch, a phone, a remote control, a wall clock**

4. WORK IT OUT **Why may you build a circuit with a cell but never with anything that plugs into the wall?**

1. The passage says mains electricity is far more powerful than a battery.
2. A cell is safe to handle and the mains is not.

Answer: **Because mains electricity is far more powerful than a battery**

A CIRCUIT

1. What is the complete loop called?

1. The passage says that loop is called a circuit.
2. So the answer is **a circuit**.

Answer: **A circuit**

2. What does a cell do?

1. The passage says a cell pushes the electricity along.
2. So that is the answer.

Answer: **Push the electricity along**

3. What is a battery?

1. The passage says a battery is two or more cells together.
2. So that is the answer.

Answer: **Two or more cells together**

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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.