

Y4 Electricity

KS2 Y4 Science · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Sort: lamp, mobile phone, kettle, calculator, scissors.

Step 1 · Which plug into the mains?

Lamp, kettle

Step 2 · Which use a battery?

Mobile phone (rechargeable), calculator

Step 3 · Which don't use electricity?

Scissors

Answer: Mains: lamp, kettle. Battery: phone, calculator. Not electric: scissors.

Check: A phone's battery is recharged from the mains, but the phone runs on its battery.

2. Now try one with the steps

Why is it safe to use a battery in class but not mains electricity?

Step 1 · How strong is a school battery (cell)?

Step 2 · How strong is UK mains?

Answer:

3. Practice

Have a go at each one. There is space underneath to work it out.

1. Name TWO appliances that plug into the mains.

2. Name TWO things that run on batteries.

3. Name ONE thing in your home that does NOT use electricity.

4. Is mains electricity safe to experiment with?

5. Why should you never touch a switch with wet hands?

6. What should you do if your kite gets caught on a power line?

7. Give ONE job electricity does in a home.

8. Why is it dangerous to plug too many things into one socket?

9. UK mains is about 230 volts. A school battery is 1.5 volts. Which is more dangerous?

10. Why do torches and remote controls use batteries instead of a plug?

11. A phone runs on a battery but is charged from the mains. Is the phone a mains or a battery appliance while you use it?

12. Toast is stuck in a toaster. What should you do?

13. Tally of appliances: kitchen 9, living room 6, bedroom 4. How many more in the kitchen than the bedroom?

14. Give TWO rules for staying safe near electricity outdoors.

4. Before you hand it in

Batteries and mains electricity are equally dangerous.

Experiment only with batteries. Never with plugs or sockets.

Anything with moving parts must be electric.

Ask: does it plug in or need a battery?

Water helps keep electrical things cool and safe.

Keep drinks and wet hands away from electrical appliances.