

# Electricity

## Construction

### Prior Knowledge

**Year 3:** Light - We know that all light comes from a light source, some of these are natural and some come from electricity (a torch, light bulb).

**Year 1 and 2:** Everyday materials - We know that all materials have different properties.

### Future knowledge

**Year 5:** Properties and changes of materials - Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.

**Year 6:** Electricity - associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.



### My Component Knowledge:

Lesson 1: I can identify which machines need electricity to work.

Lesson 2: I can identify electrical components and their symbols. I can create a simple electrical circuit.

Lesson 3: I can identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.

Lesson 4: I can recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.

Lesson 5: I can investigate which objects are conductors and which are insulators.

Lesson 6: I can identify situations when electricity can be dangerous.



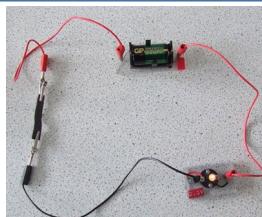
### My Composite Knowledge:

I understand the uses of electricity and can identify the dangers of it.

### My Powerful Knowledge:

I understand that electricity is a form of energy. I know that some materials are electrical insulators and some are electrical conductors and that these materials have different uses. I understand the dangers of using electricity and know how to keep myself safe.

**What would the circuit diagram look like for this circuit?**



### Key Vocabulary

**Tier 1:** battery, bulb, metal, plastic, electricity, energy

**Tier 2:** buzzer, motor, break, appliances, device, generate

**Tier 3:** electrical insulator, electrical conductor, component, current, source, circuit

### Working scientifically

I can gather, record, classify and present data in a variety of ways to help in answering questions.

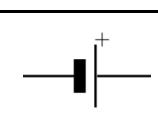
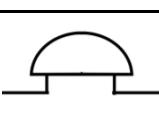
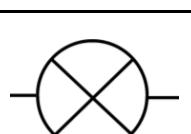
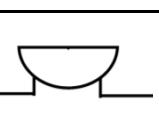
I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.

I can make systematic and careful observations.

I can set up simple practical enquiries, comparative and fair tests. I can ask relevant questions and use different types of scientific enquiries to answer them.

I can set up simple practical enquiries, comparative and fair tests. I can report findings from enquiries, including oral and written explanations.

I can ask relevant questions and use different types of scientific enquiries to answer them.

					
Battery	Cell	Switch	Bell	Bulb	Buzzer