Th

**Big Ideas/Substantive Concepts**

Sources of electricity

Components

Apply it

Pupils should be taught to:

• identify common appliances that run on electricity

• construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs,

switches and buzzers

• 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

• recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple

series circuit

• recognise some common conductors and insulators, and associate metals with being good conductors

Questions

What appliances use electricity?

What sort of power makes them work?

What are the components in a simple series circuit?

What are the effects of changing circuit components and batteries?

**Key Vocabulary**

|  |  |
| --- | --- |
| **Tier 2** | **Tier 3** |
| associate | component |
| identify | electrical insulator |
| portable | electrical conductor |
| effect | circuit |
| appliance | hypothesis |
| series | variable |
|  |  |
|  |  |
|  |  |
|  |  |

Year 4: Electricity

**Resources:** [CUSP curriculum](https://www.unity-curriculum.co.uk/history/history-ks2/) and [Curriculum vision](https://www.curriculumvisions.com/indexHistory.html) resources for online non-fiction texts

Making connections to prior learning

|  |
| --- |
| **Year 3:** Light**Year 3:** Forces and magnets**Year 4:** Sound |

Working Scientifically

|  |  |  |  |
| --- | --- | --- | --- |
| Ask relevant questions | Set up simple, practical enquiries and comparative fair tests | Make accurate measurements using standard units, using a range of equipment, eg. thermometers & data loggers | Gather, record, classify and present data in a variety of ways to help in answering questions. |
| Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables | Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions | Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests | Identify differences, similarities or changes related to simple, scientific ideas and processes |

**Outdoor Learning Opportunities**