

| Science Skills Unit: Electricity and Magnetism  |   | Year: 2   |
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| <b>Science Skills Unit Overview</b>   |   |   |
| <ul style="list-style-type: none"> <li>• Identify examples of things people use that require electricity.</li> <li>• Express the danger associated with electricity and list safety rules.</li> <li>• Compare static and current electricity.</li> <li>• Trace the path of electricity in a home from a power plant, through lines, to wall sockets.</li> <li>• Compare devices that plug into wall sockets with those that use batteries.</li> <li>• Compare and contrast an electric motor that makes a fan spin with a spinning generator that produces electricity.</li> <li>• Explore how magnets can make something rotate.</li> <li>• Recognise the basic practice of an electrician.</li> </ul> |   |   |
| <b>Key Vocabulary</b>   |   |   |
| Appliance, assemble, attract, battery, charge, circuit, complete, cling, connected, conduct/ conductor, contact, cord, current electricity, danger, electric/ electrical, electrical storm, electrician, electricity, electric panel, generator, incomplete, install, insulate, insulated wire, invent, invisible, lightning, loop, magnet, magnetic pole, motor, patent, plug, power, power lines, power outage, power plant, pull, push, recharge, repel, rotate, shock, socket, source, spark, static electricity, surface, switch, utility pole, wire, wiring   |   |   |
| <b>Further reading list</b><br><i>(Reading these commercial texts would support and enhance learning in this domain.)</i>   |   |   |
| <ul style="list-style-type: none"> <li>- A Beginner's Guide to Electricity and Magnetism - Gill Arbuthnott</li> <li>- The Magnetic Banana – Steve Barlow and Steve Skidmore</li> <li>- Toys in Space – Mini Grey</li> <li>- Solar System Song <a href="https://www.youtube.com/watch?v=BZ-qLUIj_A0">https://www.youtube.com/watch?v=BZ-qLUIj_A0</a></li> <li>- Beegu – Alexis Deacon</li> <li>- My Shadow – Robert Louise Stevenson – Giglets</li> <li>- One Candle – Eve Bunting (Non-linear time sequences)</li> <li>- Mirror (poem) – Jeanne Baker (Resistant Text)</li> </ul>   |   |   |
| <b>Independent Learning Project</b><br><i>Pupils are asked to complete at least one independent learning project at home during the Science Skills Unit.</i><br><i>Some suggestions are below.</i>  |   |   |
| Go on an electric appliance hunt in your home! What appliances can you find that use electricity?   | Find out about Thomas Edison. How did his inventions change people's lives?   | What dangers do we associate with electricity? What hazards are there that we need to watch out for? Create a poster to show how to stay safe when using electricity.   |
| Write a poem about the many different ways you use electricity. Maybe you watch TV or play video games, you might even help with the laundry!   | Select 15 items in your home. Create a table showing which items are electric conductors and which items are insulators.                | <a href="http://www.bbc.co.uk/bitesize/ks2/science/physical_processes/">http://www.bbc.co.uk/bitesize/ks2/science/physical_processes/</a><br><br>Read the information about electrical circuits and play the game – be careful of the Gnome cams! |
| Go around the house on a magnetic hunt. Which items in your house are magnetic and which are not? How did you know? What did you find out? What conclusions can you draw?   | Design a magnetic game. Draw a design to show your ideas. Add labels to explain the aim of your game and how the magnets would be used. | Create a wordsearch of the key vocabulary for your topic.   |