

Curriculum enrichment (linked to Enquiry Question)	DT Showcase
Literacy Rich Curriculum	High Quality texts

Our Curriculum Key Drivers - Flourishing for All, Diversity and Challenge

L	Enquiry questions	Connect knowledge (Super 6)	Key Teacher subject knowledge	Substantive knowledge	Disciplinary knowledge	Apply (lesson - planned in phases)	Key Vocabulary	Outcome of Lesson
1	To learn about electrical items and how they work.		Define electricity as a type of energy used to power electrical items. Electricity occurs naturally in lightning. It took a long time for people to discover how to capture and use electricity for electrical items such as hairdryers and computers. Until they discovered how to capture it, people lived without any electricity.	I can identify electrical products. I know what electrical conductors and insulators are. I know that a battery contains stored electricity and can be used to power products.	Evaluating electrical products.	Lesson 1	Battery Bulb Buzzer Conductor Circuit circuit diagram Electricity Insulator series circuit switch	Year 3: identifying electrical products and explaining why they are useful as well as helping to make a working switch. Year 4: As above, plus children drawing symbols to represent components of the circuit.
2	To analyse and evaluate electrical products.	Lesson 1	While Thomas Edison is very well known, little is heard of Joseph Swan, but both men are equally responsible for bringing electric lamps (<i>bulbs</i>) into the world. Although spiral eco and LED lamps are now seen, the glass body of the bulb has mainly remained the same recognisable shape throughout history	I can identify the features of a torch. I understand how a torch works. I can say what is good and bad about different torches. I understand what is important in torch design.	Evaluating electrical products. To know that product analysis is critiquing the strengths and weaknesses of a product.	Lesson 2	Circuit Component Design design criteria Diagram Evaluation LED Model series circuit Shape target audience	Year 3: identifying the features of a torch and how it works, as well as describing what makes a torch successful. Year 4: As Year 3, plus suggesting reasons for a design to suit a target audience.
3	To design a product to fit a set of specific user needs.	Lesson 2	The children need to write success criteria to fit the need of the product. Some questions may be: Who are you designing your torch for? What colours might they like? What key or special features might they need you to include? Why is this? Does it need to be able to stand freely, more like a lamp? Does it need a loop or keyring to attach to? How could you improve your design?	I can factor in who my product is for in my design criteria. I can design a torch which satisfies both the design and success criteria.	NA	Lesson 3	Circuit Component Design design criteria Diagram Input Insulator Recyclable Switch theme	Year 3: creating suitable designs that fit the success criteria and their own design criteria. Year 4: As Year 3, plus adding features specifically for a target audience.

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4	To make and evaluate a torch.	Lesson 3	Children start by making a working circuit, including a switch, to turn their devices on and off. Children should tailor the design to the needs of their chosen user. For example, the children may wish to wrap their torch in sugar paper and decorate this. They must consider any slots they need to make to access the switch.	I can make a working circuit with a switch. I can use appropriate equipment to cut and attach materials. I can assemble a torch according to my design criteria. I can assemble a torch which satisfies the success criteria. I can test my torch to evaluate its success.	Testing and evaluating the success of a final product.	Lesson 4	Aesthetics Assemble Equipment Evaluation Ingredients Model Packaging Properties Shape Sketch test	Year 3: creating a functioning torch with a switch according to their design criteria. Year 4: As Year 3, plus suggesting ways in which their product (or it's components) could be adapted for another purpose.
	End of Unit							