Spring Inventions	Engages with debate	Vocabulary	Technical Knowledge	Research	Design	Make	Evaluate
KS1 Electrical Technology	How do toys use technology to entertain children?	Circuit Electricity Faults Batteries Design Wire Component	Know what a series circuit is. Know that the cell or battery provides the power. How technology is used in products [such as switches, bulbs, buzzers and motors]	Research how technology can power products for entertainment	Design a product based on a design criteria.	Make a product, selecting and using a range of materials and components and following instructions	Evaluate their product against a design criteria.
LKS2 Electrical Technology	How can electricity be used to help us?	Switches Buzzers Bulbs Motors Circuits Series circuit Parallel circuit Wires System Electrictrical Disassemble	The difference between a series and parallel circuit. How to find faults in circuits and battery operated devices How to test if a circuit will work or not.	Research existing products with circuits by disassembling and investigating how they work.	Design their own product and circuit.	Make a product including a circuit.	Refine work and techniques as work progresses, continually evaluating the product design.
UKS2	Why are torches all different shapes and sizes?	Series circuit Parallel circuit Symbols Circuits Components Exploded diagram Prototypes Continual refinements Electronic kits	Know how series and parallel circuits work. Draw circuits in designs using the correct symbols. Know to draw an exploded diagram.	Research a variety of torches and understand why they are constructed differently	Design with the user in mind, a functional product that is fit for purpose I.e. a reading light that is compact or a general torch that is bright	Make a product through stages of prototypes, making continual refinements.	Evaluate the design of products, to improve the user experience