## Spring Term 2023-24

Spring Inventions	Engages with debate	Vocabulary	Technical Knowledge	Research	Design	Make	Evaluate
KS1 Electricity	How can electricity be used to help us?	Circuit Electricity Faults Batteries Design Wire Component	Know what a series circuit is.  Know that the cell or battery provides the power.  How to find faults in circuits and battery operated devices	Invent a battery powered product to help people in everyday life	Design a functional product based on a design criteria.  Sustainability Technological change Equality	Make a product, selecting and using a range of materials and components.	Evaluate their product against a design criteria.
LKS2 Electricity	How do toys use electricity to entertain children?	Switches Buzzers Bulbs Motors Circuits Series circuit Parallel circuit Wires System Electrical Disassemble	The difference between a series and parallel circuit.  How to use electrical systems in their products [such as switches, bulbs, buzzers and motors]  How to test if a circuit will work or not.	Research existing products with circuits by disassembling and investigating how they work.  Sustainability Technological change	Design their own product and circuit.	Make a product including a circuit.  Sustainability Technological change Equality Legacy	Refine work and techniques as work progresses, continually evaluating the product design.  Sustainability Technological change Equality Legacy
UKS2 Electricity	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.  Sustainability Technological change Equality Legacy	Evaluate the design of products, to improve the user experience