What should I already know?

Investigate and analyse the existing products that they have researched in pairs to understand their purpose and audience. Discus the given design brief. Create their design criteria in small groups/ pairs. Design their own product using labelled drawings and CAD (PurpleMash). List all the resources that they require for the product.

Based on their individual designs, choose from a variety of materials and perform practical skills e.g measuring, cutting joining and finishing the product independently with accuracy most of the time.

Testing their products. Evaluate in detail their ideas and products against the design criteria using a given sheet with leading questions incorporating peer feedback.

Technical Knowledge and skills:

Making and testing a circuit.

Understanding how electromagnetic motors work

Key Vocabulary:

|  |  |
| --- | --- |
| Capacitor | A device used to store an electric charge  |
| Constructing | To build or make something  |
| Evaluate  | Assess the work created  |
| Light-emitting diode (LED)  | An electric light that produces light using light-emitted diode |
| Series  | Components are connected in one loop |
| Parallel  | Components are connected alongside one another, forming extra loops  |
| Micro bit | micro:bit is a tiny circuit board designed to help learn to code |

DT Skills:

Investigate and analyse the existing products that they have researched themselves to understand their purpose and audience. Discuss the given design brief. Create their individual design criteria.

Design their own product using cross sectional labelled drawings and CAD (TinkerCAD). List all the resources that they require for the product.

Based on their individual designs, choose from a variety of materials and perform practical skills e.g measuring, cutting joining and finishing the product independently with accuracy all the time.

Testing their products. Evaluate in detail their ideas and products against the design criteria using a given sheet with leading questions incorporating peer feedback.

Blooms Taxonomy – Specific Verbs to Use in Lesson Aims

Knowledge: Describe, find, identify, list, locate, name, recognise, retrieve Comprehension: Classify, compare, explain, infer, interpret, paraphrase, summarise Application: Carry out, implement, use Analysis: Deconstruct, Organise, outline, structure Synthesis: Construct, design, devise, invent, make, plan, produce, Evaluation: Appraise, assess, choose,

Focused Designer/ Company

Smyths Toys Superstore

Key Knowledge



