### Innovation by Design

# Design and Technology Learning Journey

# **GCSE Examination Preparation**



NEA section F, Analysing and evaluating

NEA section E, Producing the final product and testing against the specification

> NEA section C, Generating design ideas

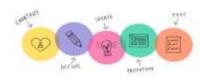


NEA section D, Creating prototypes in card, wood and plastics



### **GCSE NEA Project**

NEA section A, identifying and investigating design possibilities NEA section B, producing a design brief and specification



#### Unit 5: Theory: people, culture, societies, sustainability

## Practical: Electronic Fan Project

Unit 4: modern materials, smart materials, composites

Unit 3: Theory: Textiles, electronics Unit 2: Theory: plastics, polymers, metals, papers and boards



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## **Practical: Bird House Project**

Practical: Produce a bird house from a length of pine, measure, cut, join and construct for a bird of their choice.

Unit 1: Theory: energy sources and storage & timbers





Rotation 1 to 4 is an introduction to fair trade and ethical production, deforestation, types of timbers, carbon footprint, polymers and melting points. Improving your core drawing skills. Learning about different production methods like cutting with a fret saw, coping saw and vacuum

Identify a need Solve a problem Make models **Evaluate** outcomes Test Evolve

#### **Textiles Project**

Rotation 1 to 4 is an introduction to textiles, scales of production and fair working conditions. The skills you will learn are: Photoshop, heat press transfer technique, applique and stitching



# Paper & Boards

Rotation 1 to 4 is an introduction to technical drawing in design Year 7, will be learning about paper and boards, paper production, technical drawing, architectural drawing, types of motion and linkages. The skills you will learn are shading, rendering, isometric drawing and Google Sketch Up.

CF = Careers Focus: problem solving, creative thinking, investigation, research, communication and teamwork skills, and gain the ability to develop, refine and present ideas. Apply these skills to product design, graphics, textiles, engineering, carpentry.



Refine Teamwork



