

# KS3 YEAR 8 CURRICULUM OVERVIEW

## SUBJECT: DESIGN TECHNOLOGY

### PROJECT 1 Pewter Jewellery Metals and Timbers

#### Topics being taught

- Creative speed sketching drawing using Biomimicry design as inspiration.
- Development of drawing techniques.
- Conversion of hand drawings into CAD using Techsoft Design.
- How to use Computer Aided Manufacture – laser cutting
- Pewter casting process
- Properties of Materials (metals)
- Metal finishing techniques
- Timbers

#### What you will be assessed on

- Quality of final manufactured product(s).
- Knowledge of tools, materials, and processes of manufacture.
- Designing and presentation skills.
- Portfolio of evidence to include investigations, design, development and manufacture of products.
- Understanding and application of Biomimicry design.

#### How you can support at home

- Appropriate drawing equipment required.
- Help understanding metals including various different products made with metals.
- Support home learning tasks linked to project.

### PROJECT 2 LED acrylic light Work of others – CAD/Electronics/ Materials

- Architectural design inspiration and Research and Design
- 3D CAD using OnShape
- 2D vector CAD
- CAM – 3D printing/CAN machining
- CAM – laser cutting/engraving
- Electronics – input/process/output
- Electronics – soldering components
- Evaluation and Presentation

- Design portfolio (sketches, mood boards, 3D models)
- Understand architectural styles and how they influence lighting design.
- Apply OnShape CAD software to create technical drawings and 3D models.
- Show skilful practical skills in working with veneered MDF, acrylic, and electronics.
- Evaluation and self-reflection

- Support home learning tasks linked to project.
- Appropriate drawing equipment required.
- Discuss energy consumption and low energy lighting.

