



### Overview

In the Technology faculty we develop students into independent problem solvers, by teaching the students how to independently produce bespoke products in response to a given design brief. We base all our learning and assessment around our ethos of Design, Make, Evaluate and Knowledge. In Year 8 Students will be given the opportunity to extend their learning from Year 7. They will design in a style of two current designers Yinka Llori and Morag Myerscough. They will develop products – a clock and an Anglepoise lamp through the iterative design process. They will use 2D and 3D modelling techniques along with the laser cutter, cutter/plotters and 3D printers to produce professional products.

### Autumn

#### Clock Design – Designer focus Yinka Llori and Morag Myerscough.

1. Designer profiles and pattern design.
2. Pattern design – Inkscape
3. Pattern design – Inkscape
4. Make - create components using machinery and hand tools.
5. Make - create components using machinery and hand tools.
6. Assemble. Test, evaluate, redesign.

**\*Self and Teacher assessment through end of unit assessment grid.**

Due to the practical nature of the subject, students will receive verbal feedback during each lesson, formal feedback will take place at the end of each project.

#### Assessment:

**Design** – clock design sketches and prototypes.

**Make** – the body of the clock and CAD CAM components.

**Evaluate** – how well the student has evaluated their designs, practice and finished product.

**Knowledge** – selecting correct tools and exporting correct file type, enhanced knowledge of sustainability and recycling polymers.

### Spring

#### Anglepoise lamp

1. Brief, analysis. Initial ideas
2. Make - create components using machinery and hand tools.
3. Make - create components using machinery and hand tools.
4. Base design
5. Base manufacture
6. Base manufacture

**\*Self and Teacher assessment through end of unit assessment grid.**

Due to the practical nature of the subject, students will receive verbal feedback during each lesson, formal feedback will take place at the end of each project.

#### Assessment:

**Design** – lamp design sketches and prototypes.

**Make** – the moving parts of the lamp, soldering of components.

**Evaluate** – how well the student has evaluated their designs, practice and finished product.

**Knowledge** – selecting correct tools and exporting correct file type, enhanced knowledge of sustainability and recycling polymers. Style and features of the designers.

### Summer

#### Anglepoise lamp

1. Lamp shade design, CAD – lamp shade
2. CAD – lamp shade
3. Solder / electronic control
4. Adjustments, final assembly.
5. Assemble, test, evaluate, redesign.

**\*Self and Teacher assessment through end of unit assessment grid.**

Due to the practical nature of the subject, students will receive verbal feedback during each lesson, formal feedback will take place at the end of each project.

#### Assessment:

**Design** – lamp design sketches and prototypes.

**Make** – the moving parts of the lamp, soldering of components.

**Evaluate** – how well the student has evaluated their designs, practice and finished product.

**Knowledge** – selecting correct tools and exporting correct file type, enhanced knowledge of sustainability and recycling polymers. Style and features of the designers.

#### Useful resources for supporting your child at home:

Excellent design sketching tutorials:

[product designer maker - YouTube](#)

Student access to Focus eLearning – direct link given to students - excellent Fusion 360 video tutorials