



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 develop their learning for year 7 and 8. They will now enhance their electronics knowledge to design and make a safety light. Venture into the world of sustainable architecture to design and make a scale model house for a given client, and then design a range of sustainable jewellery showcasing all their design and making skills.

Autumn

Architecture – sustainable architecture

1. Sustainable houses.
2. Intro to Fusion 360
3. CAD house designs
4. CAD house designs
5. CAD house/ landscape design
6. CAD landscape design

***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 –full autonomy of the item’s appearance, ensuring that user centred design is a focus.
Make – using card modelling, finishing skills and CAD/CAM to create a scale model of a home for the client.
Evaluate – throughout the project and as a final evaluation.
Knowledge – selecting correct tools and exporting correct file type, enhanced knowledge of sustainability through selecting material and energy sources. Ensuring that the needs of the client are met in the final design proposal.

Spring

Architecture – sustainable architecture

1. landscape and house decorating
2. presentation
3. evaluate

Safety Light – electronics project

1. Intro to electronics. Solder – resistors and capacitors
2. Solder – Transistors and LED’s
3. Solder – battery pack & testing
4. Initial ideas – casing
5. Modelling – casing
6. CAD – casing design.

***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 –design of the casing, using CAD/CAM to create.
Make – using CAD/CAM and workshop to create and solder all components.
Evaluate – throughout the project and as a final evaluation.
Knowledge – knowledge of electronic components, CAD/CAM, selecting and using electronic tooling safely and accurately.

Summer

Safety Light – electronics project

- 7 CAD – casing design.
- 8 CAD – reflective casing
- 9 Solder – switch
- 10 Test and assemble.
- 11 Evaluate and 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 –full autonomy of the item’s appearance, ensuring that user centred design and sustainability is a focus.
Make – using card modelling, workshop tools and machinery, finishing skills and CAD/CAM to create a range of ethical and sustainable range of jewellery.
Evaluate – throughout the project and as a final evaluation.
Knowledge – selecting correct tools and exporting correct file type, enhanced knowledge of sustainability through material selection and production. Ensuring that the needs of the client are met in the final design proposal.

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

Homework:

Homework will be set fortnightly; it will focus on key vocabulary associated with the subject.