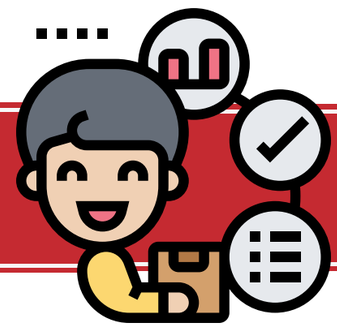
Compliant Materials Key Stage 3 Learning Journey



Evaluate
Students will evaluate their design ideas and their making skills throughout the project. They will write a formal evaluation their prototype at the end of the project.



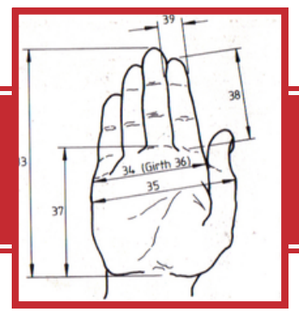


Make
Students will use modelling techniques and CAD/CAM to produce concept ideas for their product. The equipment we use consists of laser cutter, styrofoam, craft knives and glue gun.

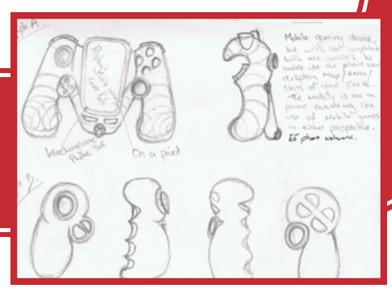


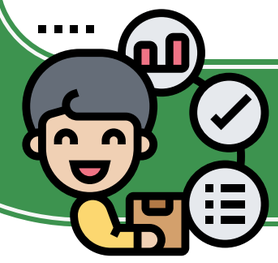
Design
Understand client needs and why it is important, demonstrate this through a range of design ideas. Students will design a range of adaptive controllers suitable for client needs.

Year 9



Research
- What are the properties and characteristics of paper and board
- Adapting for clients' needs
- Anthroprometrics and ergonomics
- Product analysis

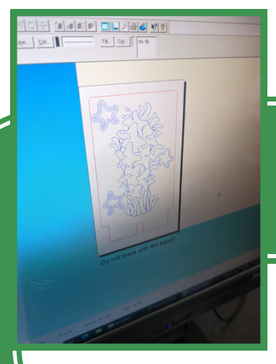




Evaluate
Students will evaluate their design ideas and their making skills throughout the project. They will write a formal evaluation their moodlight at the end of the project.







Make
Students will learn how to use CAD/CAM to manufacture quality outcomes using the laser cutter. They will also use the printer, soldering iron, vacuum former and glue gun to make products.

Make
They will learn how to make;
- Electronic circuit key fob
- Moodlight
- Package





Design
Students design a moonlight to be given as a free gift to help computer users relax. The light will be for a specific user e.g. a university student studying for exams

Design Outcomes:
- Key fob
- Moodlight
- Package



Research
- What is CAD/CAM and how is it used in the wider world
- Safe use of a soldering iron
- Electrical components
- Sustainability
- Shaping and forming of plastics

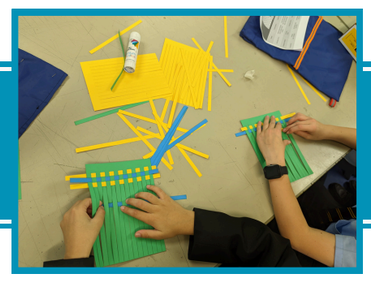
Year 8



Evaluate
Students will evaluate their design ideas and their making skills throughout the project. They will write a formal evaluation their bag at the end of the project.



Make
Students will learn how to cut, fold and pin fabric to sew using a sewing machine. Tools and equipment; sewing machine, scissors, pins, needle, thread, Bodkin.



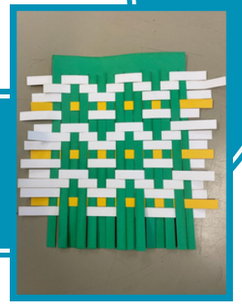
Design
- A waterproof draw string ruc-sac style bag with a high visibility decoration. The bag will be for a specific age group – teenagers
- Drawing technique of perspective drawing will be taught

Year 7



Research
- Safe use of sewing machine
- Equipment used in textiles
- Properties and characteristics of fabrics
- How to join fabrics





Year 9 Overview

In Year 9 we research, design and make prototype products for an adaptive controller.

Students will explore the idea and ethos behind inclusive and accomodating products.

We will investigate the importance of packaging design and exploring different approaches to packaging.

Year 8 Overview

In Year 8 we research, design and make a Moodlight.

Students will explore designing with computer aided design and manufacture. (CAD/CAM). They will also learn about electronic components, plastics and sustainability. Students will design a moodlight that will glow soothingly and rotate through a range of colours.

Year 7 Overview

In Year 7 we research, design and make a High Visibility Bag

To address the issue of the high number of teenagers involved in road traffic incidents students will make a bag which includes a high visibility feature.

We learn about the properties and characteristics of fabrics and how to use a sewing machine safely and precisely.

"Design is thinking made visual." Saul Bass