

## **Subject:**

**GCSE Design & Technology: Product Design**

## **How will I be assessed?**

The course is assessed by 50% examination and 50% NEA (coursework)

**Examination paper- technology in the 21<sup>st</sup> century.**

**NEA- Context to be chosen by pupil.**

## **What will I learn?**

You will learn about Technology in the 21<sup>st</sup> century and develop specific skills within Textiles. Some of the topics you will learn about at GCSE are:

- Design movements
- Designers
- Timbers and boards
- Metals and alloys
- Smart and modern materials
- Papers and boards
- Textiles materials
- Finishes on materials
- Impact of technologies on society and the environment
- Computer aided design and manufacture
- Levels of production
- Manufacturing techniques and production methods
- Systems and electronics
- Decorative techniques
- Iterative design process
- How to produce a specification
- Research techniques both primary and secondary
- Designing and annotation

## **Why is this subject valuable?**

Product Design gives us an amazing insight into the world around us. This can be everything from furniture, tools, objects and machinery. Product Design develops creativity and allows you to explore innovative design ideas. Pupils learn a wide range of skills and knowledge based information during the course. This course promotes independence, creativity, resilience and problem solving skills.

This course covers a wide range of materials for you to specialise in, this therefore gives you much more scope to design and make a product of your choice from a suitable material and manufacturing process. Broadening the range of materials available to include; metals and alloys, timbers and boards, polymers and smart and modern materials. There will also be scope should the pupils wish to challenge themselves by including mechanical and/or electronic systems to your product. Product Design allows pupils to access CAD/CAM when designing and making. We are also proud of our wide range of CAM machines here at Chipping Sodbury School, such as our; laser cutter, 3D printers and CNC machines, all of which will be available for you to use.

Working from contexts, pupils can come up with their own design brief and work towards solving it – what other subjects aside from D&T give them the opportunity to develop such strong analytical problem-solving skills.

In Product Design you will also develop a wide range of skills such as; problem solving, primary and secondary research, decorative and constructive techniques as well and evaluative and analytical skills. You will develop a knowledge of a range of fabrics, new technologies in fabrics and CAD/CAM skills.

A GCSE grade in Design & Technology – Product Design indicates to employers that you have a wide range of skills, you show resilience, creativity, independence, making skills, problem solving and adaptability.

### **Career choices where this subject would be valuable:**

**Design and pre-production:** Senior Designer, Designer, Architect, Interior Designer, Product designer, Design assistant, Material engineer, Mechanical engineer, Electrical engineer, Draftsman, Quality control operative, Fault finder, Product tester, CAD operator, Machinist, Costings manager, Specification technician, Set designer.

**Other Career options:** Retail manager, retail operator, Retail buyer, Visual merchandiser, Warehouse manager, Marketing manager, National sales manager, Fashion journalist, Fashion stylist, Cutter, CAM operator, Production lay planner, Purchasing coordinator, Import and shipping coordinator.