



Year 8 Design Technology

Aims:

- To develop and embed students knowledge in product design, Textiles Technology and product design.
- To build on design skills established in year 7 with an emphasis on creativity, presentation techniques and CAD design. Students will develop design ideas as a result of feedback and research.
- To use tools and equipment safely to produce a quality prototype. Students will be more independent and will be able to finish a workshop-based product to a high quality.
- To further develop knowledge and skills when planning, preparing, and cooking a variety of mainly savoury dishes, understanding the effects food has on our bodies.

Content:

In year 8 students will be introduced to synthetic textiles and use Great British design to inspire a new prototype. In textiles students will further their design and communication skills and will be able to develop ideas because of research and idea generation. Students will develop an understanding of a variety of printing processes and how these could be applied to an industrial context.

The year 8 Food Technology curriculum looks to further embed knowledge of healthy eating and food preparation techniques. Students will study begin to understand the effects food has on our bodies, with a deeper scientific understanding of how to keep ourselves healthy. The Recipes and practical work pupils complete will become more complex with more scope for students to show flair and creativity.

Product Design Technology as part of the third project follows an iterative design process. Students will follow a design brief to develop a prototype to the design brief of 'working from home' it will be influenced by the style of a famous designer. Project outcomes will vary as a result of research around a designers' work, leading to a more creative and innovative prototype.

Curriculum Map

Year	Term	Curriculum	Assessment
8	Term 1	Textiles Students will research Great British Designers and the influence they have had on the products we buy. They will apply this knowledge to design and make a prototype for a 'Great British deck chair'. Using knowledge of synthetic textiles, their working properties, and a variety of printing techniques.	Students will be assessed on written and design communication and how an idea is further developed. Practical outcomes will be assessed along with accuracy of sewing and construction. There will be scope for peer and self-testing and evaluation throughout.
	Term 2	Students will examine the eat well guide in more detail, focussing upon the macronutrients within the guide and the roles these play in keeping our bodies healthy. This knowledge will be complimented with practical tasks with a development of their knife skills, use of hob, use of oven, a variety of equipment and health and safety.	Students will be assessed on practical cooking skills and their ability to design and adapt recipes and menu items. Students will have an end of unit test to consolidate learning of topics including healthy eating and the effect food has on our bodies.

	Term 3	Students will investigate polymers, including sources and working properties. Students will design an 'Alessi inspired' prototype which answers the design brief of working from home. Students will be using a variety of design communication techniques. These designs will be used to produce a prototype, using techniques such as line bending, hand tools and cad/cam.	Design and written communication along with the complexity of developing a design product for a specific client. Students will be assessed on testing and evaluation, project planning alongside the practical prototypes produced.
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Assessment:

In year 8 students will use self and peer assessment as design ideas and products evolve. This form of assessment will develop students' ability to take on advice and to consider how to further develop their ideas. As project work evolves there will be key points where work is marked and students will be given time in lesson to consider and work on feedback. This will also be the case for extended learning projects. All will develop reflective skills and enable students to improve their work. At the end of a project, students will be assessed on their work and effort and will be specific to the content of the project. Students will be given time at the end of a unit to work on feedback, to further develop design ideas and respond to comments from Teachers and peers.

Extended Learning:

Design Technology is a broad subject with scope for students to develop a love of making, cooking, designing, fashion, and engineering. Through year 7, students will use extending learning to both extend, and further knowledge learnt within lessons. Extended learning projects will be student-led and in term one students will research and develop knowledge around British influences on fashion and textiles. Term two alongside shorter home-learning pieces' students will research food cultures from around the world that will link into a Street food market stall. Term three will cover Product Design and students will conduct a range of research gathering techniques including client interview and shop study to influence and develop their theory and practical work within lessons.

Connection to the JTFS Approach

Whole School Theme	How does <i>Design Technology</i> support this?
STRIPE	Students will innovate and create a design solution to a given design brief. Across all three terms students will need to be reflective and resilient when introduced to challenging tools and equipment. New topics including extended learning will need enquiry skills to research and communicate the wider issues around a topic.
STEAM	All three projects will include real life, industry quality machinery including laser cutters, workshop tools and kitchens. Students will understand engineering, manufacture, maths and science in realising their design ideas. Art will play its part in helping students to be creative and communicate their ideas.
Literacy	Across all project work and extended learning students will need to communicate their thoughts and design ideas. Students will need to evaluate their work and be able to present their ideas to peers.
Numeracy	Students will need to measure, weigh and calculate in all three projects. To achieve a quality outcome, students will need to be accurate, use materials wisely and to test and evaluate.
SMSC, British Values and Citizenship	Cultural influence and British Design style covers two of the units this year. Students will consider how British life is influenced by different cultures and aesthetics.