

Design and Technology

Year 9 Overview

<u> Topic 1 – Food</u>

Students study the principles of raising agents and experiment with ways to make and modify bread. These recipes are developed further considering taste, texture, aroma and appearance (sensory testing). The introduction of meat in year 9 allows students to learn more about food safety, hygiene, poisoning and the importance of food storage. Students develop practical skills built from previous years and use this to make chicken stir fry, fajitas, spaghetti Bolognese, soda bread, pizza and Swiss roll. Students are introduced to the NEA2 as a mini project to prepare for the GCSE.

Topic 2 – Pupils explore the world of metals

Pupils explore the world of metals learning about its sources, how its processed and how it is used. They learn how the use of CAD & CAM can be used to increase the quality of their practical work and use it to make a mould for. a pewter-cast key fob. Packaging is then designed for the key fob to promote its sale in shops.

Topic 3 - GCSE Prep

Students will complete a project that follows the same model as the NEA (Non-Exam Assessment) element of GCSE Design and Technology. They will work with a client and investigate a given design brief leading to a specification. They will present their research and development (which includes CAD modelling of their chosen prototype) in the form of an electronic portfolio. Alongside the mini-NEA, students will also cover some GCSE theory and content that forms the core knowledge of GCSE Design and Technology.

<u> Topic 4 – Textiles</u>

Students will explore the use of different textile fastenings, surface decoration and finishing techniques to design and make a sensory toy or mat. Pupils will research the benefits of sensory toys for anyone from babies to people with Alzheimer's and include pupils who might benefit from similar toys to help them manage their stress and anxiety or to keep them focussed.