

## Technology Curriculum Intent.

Technology is a **practical** and valuable subject. It enables **all students** to actively contribute to the **creativity, culture** and well-being of themselves, their community and wider **society**. It teaches students how to take risks and so become more **resourceful, innovative, enterprising** and **capable**. Within our faculty, we create a broad area of study which is delivered by subject specialists, focusing on designing and making. This will utilise subject specific knowledge, skills and an understanding of the importance of literacy and numeracy how they are applied within the subjects.

At Key Stage 3 students follow a programme of study incorporating Design Technology, Food and Nutrition and Textiles and complete stimulating projects in each area. At KS4, students can choose to study one or more of the technology subjects. This considered, sequential five-year programme of study enables students to create **quality products** as well as giving them the practical skills to aid them in everyday life. At KS4, students are provided with further opportunities to develop these vital skills. This opens the door to an exciting and almost endless range of career paths and further educational at KS5 and beyond.

### Textiles

In textiles, we aim to encourage all students to develop skills to express their creativity with confidence. Through independent thinking and freedom of choice, students build upon skills through a sequence of lessons. The KS3 curriculum starts with students developing a good understanding of key words, safety requirements and equipment use and purpose, and putting this knowledge to design and make quality products focusing on applique and the sewing machine. Building upon this knowledge, in Year 8 students' progress to develop a wide range of decorative techniques and processes which are then used to design and make a Brighton cushion which allows for a more flexible and independent approach to individual design demonstrating creativity and skill. Culture and the use of textiles in the wider society is introduced in Year 9 when students focus on fabric construction, history and uses when working with wool and felt. Students are given the opportunity to develop their own quality practical outcome from the fabrics that they create. Looking at textiles artists as a means of inspiration is also included in the Year 9 curriculum in preparation for KS4. Continual development of decorative processes and the introduction recycling and upcycling is also looked at in Year 9.

At Key stage 4, students follow the AQA Art Textiles. Students create a portfolio of work demonstrating the ability to take inspiration from a range of artists and cultures. They refine the skills developed in Key stage 3 and extending them to a much higher skill level such as, free-hand machine embroidery and screen printing to design and create a wide range of innovative outcomes. At KS4 students will gain the necessary skills and foundation required to continue their studies at KS5 or enter one of the many varied career paths.

### Food

During Food and Nutrition at KS3 the curriculum will provide all students with the opportunity to learn how to cook nutritious food products as well as make informed decisions about their diet and health. Within the year 7 curriculum students will become familiar with, and more confident in the cooking environment. This includes safe use of specialist equipment e.g. paring knife and basic principles of food hygiene and safety. An underlying theme throughout will be the application of the Eatwell Guide as a model for a healthy diet within a multi-cultural society. At the end of the module, students use their creativity and demonstrate their knowledge and understanding by designing and making a "Master-Chef-inspired" cereal-based salad. The year 8 curriculum includes more advanced knife and culinary skills e.g. use of cook's knife in the preparation of more advanced dishes. There is a continuation of the Eatwell Guide linked to seasonality and sustainability. Students also develop their knowledge of food safety and hygiene

further e.g. meat safety and use of food thermometers. There is a greater emphasis placed on finishing techniques for food presentation and learning about the functional properties of a range of ingredients e.g. sauces and bread-making. In Year 9 the students will apply the knowledge gained in year 7 and 8 by completing a module which gives a "Taste of GCSE Food Preparation and Nutrition" where they develop more complex culinary skills that will be required if they opt for the GCSE course. The focus will be on the preparation of main course dishes and, alongside this, the students will gain an insight into Food Labelling and their application in their food choices.

At KS4 students follow the Eduqas GCSE in Food Preparation and Nutrition. This equips learners with the knowledge, understanding and skills required to cook and apply the principles of food science, nutrition and healthy eating which we began in KS3. It encourages learners to cook, enables them to make informed decisions about food and nutrition and allows them to acquire knowledge to be able to feed themselves and others affordably and nutritiously, now and later in life - vital life skills. However, it will also give some of our learners an entry in to a career where this knowledge plays an important part.

## **Design and Technology**

In Design and Technology, we plan and deliver a sequenced curriculum which is designed to give all students the skills and abilities to engage positively with the designed and made world and to harness the benefits of technology. We teach students how products and systems are designed and manufactured, how to be innovative and to make creative use of a variety of resources to improve the world around them. We follow a 3 year key stage 3 program based on the national curriculum for Design and Technology and at KS4 work with the exam board AQA to deliver our GCSE course.

In year 7 we lay the foundations of the subject, with an acute understanding that the prior experience of pupils at KS2 is very varied, and that learning has been disrupted due to the pandemic. We develop key designing, making, safety and hand skills with students as well as developing an understanding how numeracy and literacy are applied in the subject.

Early projects focus on introductory work in electronics, wood working, Computer Aided Design/ Manufacture and knowledge of tools and materials. Pupils evaluate their own work and that of their peers to collaborate and learn the concept of design iteration.

By laying this foundation we are able to incorporate more challenging materials and advanced processes such as casting and heat forming as we progress through key stage 3. Students are taught to evaluate the wider consequences of their design choices from a global and local viewpoint. Cross curricular links in (but not limited to) STEAM subjects are made explicit to the pupils.

At the end of KS3 the focus shifts towards develop their ability to design iteratively and to solve real world design problems, in preparation for the GCSE's, KS5 and industry. Working towards a design brief, students are encouraged to test theories and explore materials, learning to take risks prior to realising the final outcome.

At Key stage 4, students follow the AQA Design and Technology GCSE. Learning is delivered through a range of engaging and challenging projects leading towards the AQA NEA (non examined assessment) and final exam. Each project at KS4 includes specific new content but also allows for revision and practise to develop confidence and quality. Examples of projects include, electric vehicles, jewellery, green energy production and user centred design. The AQA specification has a balanced split between designing / making and theoretical/academic aspect of the subjects, therefore providing students with the most diverse possible range of options at KS5 and beyond.

