

DESIGN & TECHNOLOGY: 3D Products

Type of Qualification: GCSE

How it is assessed: 50% Examination, 50% NEA (Coursework)

Course Overview:

Design Technology: 3D Products is an exciting course for those students who enjoy designing & creating, experimenting & making. **Explore – Create - Evaluate** will be at the subjects' core. It will be used to help students design and develop high quality 3D product outcomes in a range of suitable materials that meet user needs, solve real life issues and improve existing outcomes. The course consists of three key elements. These include:

- **Core technical principles**
- **Specialist technical principles**
- **Designing and making principles**

The year 9 curriculum for this course will provide students with an opportunity to build on their KS3 DT experience. There will be a focus on 'upskilling' where students will get to experience a range of practical focused tasks designed to provide a broad experience of materials and processes. More in depth project tasks are studied to support the **core technical principles** and designing and communication skills. This core knowledge will then be applied to more in depth design and make contextual challenge based work in year 10 where students have to consider specific users and their needs, wants & likes.

The NEA (non-examined assessment): Previously known as coursework, 50% of the final marks are given for designing and making a high quality prototype with a supporting design folder. This will link to a 'contextual challenge' that is set by the exam board at the end of year 10 and has been thoroughly researched and investigated. NEA style supporting activities will be studied throughout the course to help students thoroughly prepare for the demands and rigour of the main NEA task. Students will select which materials and manufacturing techniques are most appropriate to their final design and this can include 3D printed outcomes.

The exam: 50% of the final mark is a written exam paper. This exam is split into three sections following the three key elements of the course; general DT knowledge (**Core technical principles**), in-depth knowledge of **one** or **more** chosen material areas (**Specialist technical principles**) and finally design related content and skills (**Designing and making principles**).

The course will be underpinned by the following key skills:

- Design strategies (*including iterative, user centred, creative and design influenced*)
- Exploring, modelling and testing ideas
- Materials experimentation (*working characteristics and properties*)
- Manufacturing techniques (*traditional and modern – including CAD/CAM*)

Post 16 and Career opportunities:

Design & technology GCSE is a robust and exciting qualification which prepares students for further study or apprenticeships in various design fields including Product design, Fashion, Graphic Design, Textile Design and Engineering.

Key attributes for success on this course are: A passion and enjoyment for designing and making things, a willingness to recognise all material areas rather than expecting to study just one, embracing trial and error - a fundamental component of D&T, commitment to completing regular external study tasks, maintain a theory folder and accompanying sketchbook, satisfactory making ability / CAD skills. An ability to draw or sketch is an advantage (but not essential).

