Design and Technology

Marshland High School

West Norfolk Academies Trust

KS3 Curriculum Overview

Year 7

During Year 7 students will follow a carousel system in their Technology Lessons. They will have 10 weeks on a concept design project, 10 weeks in Food Technology and 20 weeks on a Design and make project in the workshop. The order that students complete the projects will depend on their group and the subject area they start with in September.

Concept design project: Graphical Skills

Students will develop their core abilities and understanding of using drawing and presentation techniques. This will be completed by following core knowledge exercises, and then applying developed skills to modelling and increasingly complicated drawing scenarios. The aim is to establish a common core which can be built upon in 3D Design.

Food Technology: Cooking and Nutrition

Their learning journey covers health and safety in the kitchen, the eatwell guide, healthy eating, nutrition, carbohydrates, food science and sensory testing. Students demonstrate basic cooking skills through set practical tasks.

Design and make: Steady Hand Game

During this rotation the students will be designing and making a steady hand game. They will learn all about timbers where they come from, how to mark them out, how to cut and join them. They will be expected to design their game for a client, to investigate that clients likes and produce a computer generated graphical outcome to fix to the top of their game. Finally they will be introduced to electronic components, where they will learn what the component does and its role in their circuit before moving on to learning the soldering skills they will need to make their games work.

Year 8

During Year 8 students will follow a carousel system in their Technology Lessons. They will have 10 weeks on a concept design project, 10 weeks in Food Technology and 20 weeks on a Design and make project in the workshop. The order that students complete the projects will depend on their group and the subject area they start with in September.

Concept design project: CAD drawing skills

Pupils develop their knowledge and understanding of designing for a target market. This is through the research and development of ideas for a new handheld electronic device. Students create their own design brief, and produce Target Market Analysis. They then draw this using 3D software (google sketchup).

Food Technology:

Their learning journey covers health and safety in the kitchen, temperature control, food storage and cooking with high risk foods, the eatwell guide, food commodities and the macronutrients protein and fat.
Students develop their practical skills through set practical tasks.

Design and make: Acrylic Clock

During this rotation students will be designing and making a clock from sheet acrylic. In this project they will be expected to design an outcome based on a pre-determined design style, they will be introduced to the laser cutter (and associated software) and be encouraged to complete at least an element of their final outcome in this way. The mechanism and hands for the clock project will be supplied to the children they will be designing the clock face/stand.

Design and Technology

KS3 Curriculum Overview

Marshland High School

West Norfolk Academies Trust

Year 9

During Year 9 students will follow a carousel system in their Technology Lessons. They will have 10 weeks on a concept design project, 10 weeks in Food Technology and 20 weeks on a Design and make project in the workshop. The order that students complete the projects will depend on their group and the subject area they start with in September.

Influenced by design project: Concept design based on an Art and Design movement

Students learn about historical art and design movements, and consider how these have influenced the world of design. Students complete work following KS4 pedagogy to develop understanding of KS4 Assessment Criteria. Research (AO1) into Art movements, leading to developing design ideas (AO2) for furniture inspired by an art movement/artist. Students also develop their ability to visualise in 3D using sketching and ICT techniques.

Food Technology:

Their learning journey covers health and safety in the kitchen and the prevention of food poisoning, factors affecting food choice, food provenance, cuisines from different countries and consumer awareness.

Students develop their practical skills through set practical tasks.

Design and make: Multi Materials Gadget Tidy

In this rotation students will be encouraged to design using a range of prompts, from live data and measurements to client needs and trends. They will be designing and making a solution to store a small gadget of their choice using a range of materials (wood, metals and plastics). The project is designed to mimic the expectations of our 3D Design course, including an in depth study of the work of others to give students a realist flavour of what they can expect if they decide to continue with us at GCSE level. The final outcome should be creative, and draw upon stills that have been learnt across the whole key stage to showcase their ability in our discipline.