

design & technology



Design & Technology at Southborough High School

What about us?

The Design and Technology Department has recently received significant funding to improve its facilities. This has resulted in the development of a new ICT suite to join two fully equipped workshops and a food technology room.

The department is being transformed into a motivating and exciting environment, with a focus on aesthetics and technical creativity. Pupils of all levels of ability are provided with a stimulating, interactive and challenging experience through both Key Stages 3 and 4.

Year 7 Activities and Projects

Introduction to Health and Safety - Pupils are given a thorough introduction to Health and Safety in the workshop and Food Technology room. This considers their personal behaviour alongside tool and machine safety.

Key Fob Project - Pupils follow the design process to make an acrylic key-fob which reflects their hobbies or interests. This initial project has a specific focus on health and safety and familiarises pupils with how to use workshop machinery.

Bridge and Business Game Project - This group work project is a competition to build the strongest

what else?

Design and Technology Club
Enterprise Club
Electronics
STEM Club (with Science)
Textiles Club
Primary Transition Projects
'Ready Steady Cook' Club

bridge from pine sticks. Pupils are also required to develop a brand produce a range of promotional

technology @ SHS



2010

'The department aims to immerse pupils in creative and innovative design activities through engaging them in enterprise tasks set in a real world context. They will learn about how to design for their target market, developing quality design solutions, which reflect modern industrial practices. This will encompass the innovative and responsible use of materials, application of computer aided design and manufacture and the utilisation of systems and control.'

materials to promote their bridge company.

Food Technology – Pupils will undertake the first half of the Licence to Cook Programme. This is a programme to enable students to learn to cook and understand the principles of diet and nutrition, health and safety and wise food shopping

Year 8 Activities and Projects

Pupils are introduced to basic electronic through the design and manufacture of a steady hand game, based around a thyristor circuit.’ The Food Tech section here needs to be replaced with ‘Pupils undertake the second section of the ‘Licence to Cook’ programme and engage in a short design and make project.

Box Project – Pupils design and make a box from natural timber and manufactured boards. They learn about sources and types of timber and engage in designing the product for a specific user of their choice.

Food technology – This year we look at building on the skills acquired in Year 7 and using them to design a new baked product for a given target market. The project centres around designing for others and included collecting and using market research to create new products.

KS4

Resistant Materials

This course encourages pupils to demonstrate their design and technology skills by designing and making quality products.

In Year 10 the work is organised into a variety of modules involving

‘mini’ projects which will require you to demonstrate your designing and making skills. Surrounding these will be theory lessons to provide you with the necessary knowledge and understanding for this level of study.

In Year 11, the majority of your lesson time will be spent working on and developing your major coursework project.

Catering

This course is designed to give candidates an opportunity to extend and apply their skills and knowledge of the catering industry within a subject area. It will enable candidates to extend their design and technological capability in order to meet human needs and opportunities which have direct implications on the lifestyle and environment of all people. It will provide opportunities to develop interdisciplinary skills in all six key skills and their capability for imaginative, innovative thinking, creativity and independence relating to their personal interest.

Electronics



Electronic Products GCSE has recently been introduced and is a popular option choice. Pupils learn about electronics theory, how to design and make both electronic circuits and enclosures – producing fully functioning prototypes. In Year 10 pupils cover theory and undertake mini projects before starting their major coursework project in Year 11.

Year 9 Activities and Projects

MP3 Amplifier Project – Pupils construct a circuit which amplifies the signal from an MP3 player. The emphasis of design work is around aesthetics, with the product being a focal point in the room it placed.

Clock Project – Pupils are encouraged to work independently, following the design process to produce a clock face which supports the supplied mechanism. Pupils utilise CAD/CAM to design and cut vinyl numbers and decoration for their clocks.

Food Technology – in this year focuses on healthy eating and nutrition. We also looks at changing nutrition needs in the life cycle. We focus on skills that will be useful in GCSE Catering and give students an opportunity to sample this course as an option for Key Stage 4.

DESIGN

From this.....



to this....

