



# Design Technology

## Welcome to the Design Technology Department

### Curriculum Information 2018-2019

#### The Team:

Ms. G. Everson	Lead Teacher in Design & Technology, Food & Textiles Teacher
Mr. R. Sampson-Chambers	Design & Technology Teacher Resistant Materials & Electronics
Ms. E. Fowler	Design & Technology Teacher Food & Textiles Teacher
Mrs. A.	
Ms. J. Kay	Design & Technology Technician

#### Introduction to the Department:

Design Technology at Woolmer Hill School comprises of Food, Textiles, Graphics and Resistant Materials. Through a variety of creative and practical activities, students combine practical and technological skills with creative and independent thinking to design and make high quality products that meet specific needs. As part of their work with food, students are taught how to cook and apply the principles of nutrition and healthy eating. Learning how to cook is a crucial life skill that enables students to feed themselves and others affordably and well, now and in later life.

#### Key Stage 3:

At Ks3 students follow a carousel system where they rotate through four main focus areas (Food, Textiles, Graphics and Resistant Materials) and complete a unit of work in each.

#### Year 7 units:

Focus Area	Unit Title	Overview
Food	Getting started in the Food Room	Students begin by understanding the importance of safety and hygiene in the kitchen. Students learn about nutrients and their role in keeping healthy. Students undertake a series of practical tasks to put the above into practice. In the final lessons students complete a task enabling them to design with food.
Textiles	Drawstring Bags with Emoji BagTags	Students learn how to use the sewing machine to create a drawstring bag. They use the CAM machines to help personalise their bags. The bags are then embellished further with Emoji inspired BagTags.

<b>Resistant Materials</b>	Technical Practical Skills	Students undertake a series of related design and make tasks. They are then introduced to a variety of tools and machinery to create ear phone holders and a pencil holder.
<b>Graphics</b>	Presentation & Promotion Skills	Students will learn a range of presentation skills that will enhance their design work. The project is based around the design and promotion of a chocolate bar.

### Year 8 units:

<b>Focus Area</b>	<b>Unit Title</b>	<b>Overview</b>
<b>Food</b>	Food Hygiene and Classic Dishes	Students will focus on improving their practical skills whilst following the main food hygiene rules. They will demonstrate their practical skills in more complex dishes from a range of dishes.
<b>Textiles &amp; Resistant Materials</b>	Silhouette Lampshade and wooden stand	Students will create an embellished lampshade inspired by silhouettes. Using techniques such as applique, beading, embroidery, buttons and sequins. The lampshade will be combined with a wooden stand that has been sculpted in Resistant Materials lessons.
<b>Electronics</b>	LED light component for lamp project.	Students will look at range of different types of circuits and learn how circuits work through a series of challenges. They will then go on to design and make the lighting component for their lampshade.

### Year 9 units:

<b>Focus Area</b>	<b>Unit Title</b>	<b>Overview</b>
<b>Food</b>	Family Meals from around the world	Students will investigate the function of ingredients in a range of dishes from around the world. They will learn a variety of cooking skills and be able identify the cultural significance and reasons for ingredients. They will demonstrate cooking larger dishes suitable for a family.
<b>Textiles</b>	Packaging inspired cushions	Students will use and build on knowledge and skills learnt over previous projects to design and make a decorative cushion using inspiration from famous food packaging.
<b>Resistant Materials &amp; Electronics</b>	Wacky Racers.	Students will design and make a battery powered model racing car which they will race against each other. Students will learn about the basics of car design and apply this to the development of their own model car. Each model will consist of a laser cut chassis (CAD/CAM), styled body shell (vacuum formed Styrofoam mould) and a simple electronic circuit (soldering of motor, switch and PP3 battery snap). Students will be given a race number and encouraged to personalise their models.

### **Homework:**

Homework assignments are set once a rotation and are referred to as 'Independent Learning Projects' Each project focuses on a different element of the Design and Technology curriculum and aims to encourage students to take greater ownership of their learning.

### **Assessment at Key Stage 3:**

There are a number of assessment strategies used at KS3. On-going formative assessment throughout each unit involves teacher, peer and self-assessment in order to monitor progress and set appropriate targets. At the end of each unit summative assessment is undertaken by the teacher and progress through the units is tracked and monitored by teachers.

### **Key Stage 4:**

The DT department at the Woolmer Hill School offers excellent progression from Ks3 with two options being offered at GCSE level.

- **EDUQAS HOSPITALITY & CATERING**
- **AQA GCSE PRODUCT DESIGN**

At GCSE students receive 5 hours teaching a week which takes the form of both theory and practical lesson.

### **Level 1 & 2 Hospitality & Catering:**

Pupils will gain knowledge and understanding related to a range of hospitality and catering providers; how they operate and what they have to take into account to be successful. There is the opportunity to learn about issues related to nutrition and food safety and how they affect successful hospitality and catering operations. In this qualification, learners will also have the opportunity to develop some food preparation and cooking skills as well as transferable skills of problem solving, organisation and time management, planning and communication.

### **Unit 1 The Hospitality and Catering Industry** **Online exam 40%**

LO1 Understand the environment in which hospitality and catering providers operate  
LO2 Understand how hospitality and catering provisions operate  
LO3 Understand how hospitality and catering provision meets health and safety requirements  
LO4 Know how food can cause ill health  
LO5 Be able to propose a hospitality and catering provision to meet specific requirements

### **Unit 2 Hospitality and Catering in Action** **Coursework folder** **3 hour practical exam 60%**

LO1 Understand the importance of nutrition in planning menus  
LO2 Understand menu planning  
LO3 Be able to cook dishes

## GCSE Product Design:

GCSE Design and Technology: Product Design enables students to design and make products with creativity and originality, using a range of materials and techniques.

Packaging, labelling and instructions are encouraged as part of the complete design proposal and advertising, points of sale can be used to supplement the making experience and help create products which can be evaluated for their commercial viability.

Paper 1
<b>What's assessed</b> <ul style="list-style-type: none"><li>• Core technical principles</li><li>• Specialist technical principles</li><li>• Designing and making principles</li></ul>
<b>How it's assessed</b> <ul style="list-style-type: none"><li>• Written exam: 2 hours</li><li>• 100 marks</li><li>• 50% of GCSE</li></ul>
<b>Questions</b> <p><b>Section A – Core technical principles (20 marks)</b> A mixture of multiple choice and short answer questions assessing a breadth of technical knowledge and understanding.</p> <p><b>Section B – Specialist technical principles (30 marks)</b> Several short answer questions (2–5 marks) and one extended response to assess a more in depth knowledge of technical principles.</p> <p><b>Section C – Designing and making principles (50 marks)</b> A mixture of short answer and extended response questions.</p>

Non-exam assessment (NEA)
<b>What's assessed</b> <p>Practical application of:</p> <ul style="list-style-type: none"><li>• Core technical principles</li><li>• Specialist technical principles</li><li>• Designing and making principles</li></ul>
<b>How it's assessed</b> <ul style="list-style-type: none"><li>• Non-exam assessment (NEA): 30–35 hours approx</li><li>• 100 marks</li><li>• 50% of GCSE</li></ul>
<b>Task(s)</b> <ul style="list-style-type: none"><li>• Substantial design and make task</li><li>• Assessment criteria:<ul style="list-style-type: none"><li>• Identifying and investigating design possibilities</li><li>• Producing a design brief and specification</li><li>• Generating design ideas</li><li>• Developing design ideas</li><li>• Realising design ideas</li><li>• Analysing &amp; evaluating</li></ul></li><li>• In the spirit of the iterative design process, the above should be awarded holistically where they take place and not in a linear manner</li><li>• Contextual challenges to be released annually by AQA on 1 June in the year prior to the submission of the NEA</li><li>• Students will produce a prototype and a portfolio of evidence</li><li>• Work will be marked by teachers and moderated by AQA</li></ul>

The DT department runs a variety of clubs at lunchtime and afterschool for pupils in all of the material areas which change each term.