

# Design & Technology

**Exam Offered:** Edexcel AS/A2 Design & Technology Product Design 9GR01

## Teachers for 6<sup>th</sup> Form

**Mr M. Swailes: Head of Design & Technology.**

## Department Learning and Teaching Policy and Practice

While studying Product Design, students will develop their knowledge and understanding of a range of modern design and manufacturing practices and contemporary design issues. It is increasingly important that students develop an awareness of the impact of D & T activities upon the environment. Sustainable product design is a key feature of modern design practice.

### • **Master Learner**

In order to be a successful Design & Technology student you will need to develop a range of skills and ways of thinking which will take you on your **Master Learner Learning Journey**. As a result of effort and commitment, you should improve as a designer. You will be on a journey which might take you from a Novice to a Master and this will be reviewed and reported on.

### **Master Learner Learning Journey. (Design & Technology)**

<p><b>Novice:</b> Will demonstrate some basic understanding of a limited range of factors, selecting some appropriate strategies for developing a limited range of ideas. They use some ideas from others' designing to inform their own work. With little confidence, organisation or planning, they are in constant need of prompting and motivation from the teacher or their peers.</p>
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<p><b>Apprentice:</b> Will attempt to apply some knowledge and understanding gained from a range of sources of information but finds it hard to be selective and will accept help from students who are more effective in this respect. Finds it hard to develop ideas beyond stage one or look at their ideas critically. Time management and organisation skills are at an early stage of development.</p>
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<p><b>Practitioner:</b> Will draw on and use a range of sources of information responding creatively to explore their proposals being able to some extent, to personalise their learning tools and environment with some confidence and deal with issues that they encounter. In so doing, however, they will, at times, be in need of some guidance and reassurance and not always able to manage time or organise tasks logically.</p>
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<p><b>Expert:</b> Will draw on and use a wide range of sources of information and knowledge confidently, responding creatively to explore proposals and overcome conflict. They use their understanding of others' designing by reinterpreting and applying learning in new contexts. They are able to predict likely outcomes and make refinements having effective strategies for learning and making good use of time as a result of planning.</p>
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<p><b>Master</b> Will confidently seek out information to help their design thinking in an innovative way. Demonstrate specific knowledge and understanding and are motivated to apply that knowledge and understanding in combination with appropriate skills in their designing and communicate ideas and outcomes. They are also able to develop and refine solutions through questioning, demonstrating evidence of creativity and innovation through recognition of value issues or uniqueness. They reflect critically and effectively throughout the design and make task, being able to manage time through effective planning producing more than they are required to do.</p>
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- **Assessment Policy and Practice:**

Coursework will be assessed in line with the Edexcel marking criteria in the specification and coursework text book. Regular checks will be made to monitor progress against department deadlines and feedback will be given during these checks.

Exam questions will be marked according to the exam Board marking criteria.

Mock exams will be held in Year 12 and Year 13 and Master Learner reports will also be received.

You will receive a progress report, mock report and two Master Learner current performance reports per year.

## **Course Outline:**

- **Year 12**

Autumn Term	Spring Term	Summer Term
<ul style="list-style-type: none"> <li>• COURSEWORK Product Design Product Manufacture</li> <li>• Practical Exam</li> <li>• Intro to the course</li> <li>• Product Investigation</li> <li>• Product Design</li> <li>• Materials and Components</li> <li>• Industrial and Commercial Practice</li> <li>• Quality</li> <li>• Health &amp; Safety</li> </ul>	<ul style="list-style-type: none"> <li>• COURSEWORK Product Design Product Manufacture</li> <li>• Practical Exam</li> <li>• Intro to the course</li> <li>• Product Investigation</li> <li>• Product Design</li> <li>• Materials and Components</li> <li>• Industrial and Commercial Practice</li> <li>• Quality</li> <li>• Health &amp; Safety</li> </ul>	<ul style="list-style-type: none"> <li>• Revision</li> <li>• Start A2 Design Schools</li> </ul>
<p>Suggested reading/resources</p> <p>Graphic Products Product Design ISBN 978-0-435757-79-3</p>		
<p>Key pieces of work</p> <ul style="list-style-type: none"> <li>• Year 12 Portfolio of Creative Skills 60%</li> <li>• Product Investigation</li> <li>• Product Design</li> <li>• Product Manufacture</li> </ul>	<ul style="list-style-type: none"> <li>• Year 12 Portfolio of Creative Skills 60%</li> <li>• Product Investigation</li> <li>• Product Design</li> <li>• Product Manufacture</li> </ul>	<ul style="list-style-type: none"> <li>• Year 12 Portfolio of Creative Skills 60%</li> <li>• Product Investigation</li> <li>• Product Design</li> <li>• Product Manufacture</li> </ul>

- **Year 13**

Autumn Term	Spring Term	Summer Term
<ul style="list-style-type: none"> <li>• Industrial and Commercial Practice</li> <li>• Systems and Control</li> <li>• Design in Content Sustainability</li> <li>• Coursework – Commercial Design</li> </ul>	<ul style="list-style-type: none"> <li>• Industrial and Commercial Practice</li> <li>• Systems and Control</li> <li>• Design in Content Sustainability</li> <li>• Coursework – Commercial Design</li> </ul>	<ul style="list-style-type: none"> <li>• Exam practice</li> <li>• Revision</li> </ul>
<p>Suggested reading/resources</p> <p>Graphic Products Product Design ISBN 978-0-435757-79-3</p>		
<p>Major pieces of work</p> <p>Year 13 Design and Make Task Commercial Design 60%</p>	<p>Year 13 Design and Make Task Commercial Design 60%</p>	

### **Wider Learning Opportunities**

During the Spring Term, extended school workshops allow students the opportunity to develop or improve coursework and prepare for the exams. Students will embark on individual coursework tasks and will be encouraged to act like real designers, working independently. It will be necessary for them to plan activities such as interviews, research and investigation according to their chosen problem.

## **Wider Reading and Study:**

### **Books**

Edexcel have issued a new AS/A2 text book dedicated to this exam. All students are issued with this book. The text book gives a step by step guide to all coursework and covers all theory that will be tested in the written exams. Students will need to do extra research when engaged in their coursework. The department has a selection of Design & Technology books which can be used for research, but as each student will have individual needs based on individual client project requirements, students will need to research on a need to know basis. Technology, the global economy and design are, by their very nature, continually changing and students need to keep up to date with developments. They should, therefore, make use of the news and other media as a source of current information.

### **Reference Books:**

*GCSE Design and Technology for Edexcel – Graphic Products*, J Attwood (Heinemann, 2002)  
ISBN 0435417800

*Advanced Design and Technology for Edexcel – Product Design: Graphics with Materials Technology*, Second Edition, L. Cresswell, J. Attwood, A Goodier and B. Lambert (Heinemann, 2004)  
ISBN 0435757687

*Understanding Industrial Practices in Product Design*, L. Cresswell (Nelson Thornes, 2005)  
ISBN 0748790233

*Packaging Prototype*, E. Denison and R. Cawthray (Rotovision, 1999)  
ISBN 2880463890

*Understanding Industrial Practices in Graphic Products*, J. Mayor (Nelson Thornes, 2005)  
ISBN 0748790225

*Packaging Designer's Book of Patterns*, Second Edition, L. Roth and G. Wybenga (John Wiley and Sons, 2000)  
ISBN 0471385042

### **Websites:**

[www.design-technology.org](http://www.design-technology.org)

Design Technology Department – general information plus links to other sites.