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## DESIGN & TECHNOLOGY – PRODUCT DESIGN

### Course Information

Advanced GCE Design and Technology Product Design aims to provide an opportunity for students to develop their own creativity, capability and entrepreneurial skills. Students are also taught to apply knowledge and understanding to a range of technological activities and develop critical thinking along with collaborative skills. Advanced Design and Technology is highly regarded by both universities and employers and provides a firm foundation for a career in design and manufacturing.

### Course Structure

**Practical skills:** You will be trained and expected to produce work using a metalwork lathe, a woodwork lathe, aluminium sand casting and a forge.

**Design skills:** You will be set a blue-sky design task. Previous years have designed a one person vehicle, a pedal powered flying machine, parcel carriages for the London underground, art inspired furniture and emergency housing structures. You will be taught 2D and 3D CAD packages and engineering drawing.

**Analysis skills:** You will analyse a current product by investigating materials, manufacturing processes and quality control techniques. You will write technical product specifications.

**Theory:** You will investigate materials, manufacturing processes, components, industrial and commercial practices. You will investigate designers and design movements, marketing, systems and control, ergonomics, a designer's responsibilities and sustainability.

In your final year you will design, develop, model and make a product for a client. Previous projects have included a miniature wind tunnel, a pedal powered transporter, garden furniture and a hydraulic bicycle work station.

### Requirements

To achieve on this course, students need an interest in Design and Technology, Engineering or Manufacturing.

Pupils do not have to have studied a design course at GCSE, but, should have a strong interest in the way products are designed and made.

### Career Pathway

Design and Technology is actively involved in the art and design community. Graduates pursue highly sought after positions in product design, 3D design, industrial design, design ergonomics, manufacturing, mechanical engineering, stage design and graphic design.

Should you like to receive any additional information on this course please contact Mr P Mayfield – Head of Department