

NORTHGATE
SIXTH FORM
CENTRE

IPSWICH



DESIGN AND TECHNOLOGY

A-LEVEL

2019-2020

A Level Design and Technology

EDEXCEL

This Level 3 Design & Technology (Product Design) GCE course will be of interest to students who wish to pursue an interest or career in product design or engineering. This qualification supports progression into degree level courses in Civil Engineering, Mechanical Engineering, Aerospace Engineering, Automotive Engineering Design, Jewellery & Metal Design, Industrial Design, Product Design & Manufacture, Architectural Design, Primary or Secondary Teaching of Design & Technology and Project Management.

Course Content

Component 1: Principles of Design & Technology

50% of Qualification (120 marks)

This section involves students developing the key theoretical skills through both practical exercises and theory lessons. The content includes the following topics:

- Materials Characteristics.
- Processes & Techniques
- Digital Technologies
- Factors Influencing the Development of Products
- Potential Hazards & Risk Assessment
- Features of Manufacturing Industries
- Designing for Maintenance & Clean Environments
- Current Legislation
- Information Handling, Modelling & Forward Planning

The assessment for this will take place in a written examination at the end of Year 13. The examination will include calculations, short-open and open-response questions as well as extended-writing questions focused on analysis and evaluation.

Component 2: Independent Design & Make Project

50% of Qualification (120 marks)

This unit focuses on the students developing a substantial design portfolio that includes investigation, designing, development, making a prototype and evaluation of the final outcome.

The Assessment for this section is broken down into four sections:

Part 1: Identifying Opportunities for Design

Part 2: Designing a Prototype

Part 3: Making a Prototype

Part 4: Evaluating own Design & Prototype

Teaching & Learning

There are two practical/design sessions and one theory session each week in Year 12 and four periods of practical/design sessions in Year 13. A large percentage of the theory work will be delivered during practical and design stages of the course.

Progression

As with other A Level subjects for entry to degree level.

Curriculum Leader: Mr S Day

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