



## GCSE DESIGN & TECHNOLOGY: Design of Electronic Products

**AWARDING BODY: EDEXCEL**

**QUALIFICATION: LEVEL 2**

**AVAILABLE: ALL STUDENTS**

### COURSE OUTLINE

The GCSE in Design and Technology enables students to understand and apply iterative design processes through which they explore, create and evaluate a range of outcomes. The qualification enables students to use creativity and imagination to design and make prototypes that solve real and relevant problems, considering their own and others' needs, wants and values. This qualification seeks to prepare students to participate confidently and successfully in an increasingly technological world.

The aims and objectives of this qualification are to enable students to:

- demonstrate their understanding that all design and technological activity takes place in contexts that influence the outcomes of design practice
- develop realistic design proposals as a result of the exploration of design opportunities and users' needs, wants and values
- use imagination, experimentation and combine ideas when designing
- develop the skills to critique and refine their own ideas while designing and making
- communicate their design ideas and decisions using different media and techniques, as appropriate for different audiences at key points in their designing
- develop decision-making skills, including the planning and organisation of time and resources when managing their own project work
- develop a broad knowledge of materials, components and technologies and practical skills to develop high-quality, imaginative and functional prototypes.

The option focuses on designing and making products with an electronic function. Students who opt for this route enjoy designing and building an electronic circuit that they would build into their designed device. Products to design could be an intruder alarm, a sweet counter or a child's musical toy. There is a heavier weighting of designing circuitry using Circuit Wizard software and a higher emphasis on applied maths. This course is most suitable to students who;

- enjoy practical work and being in the practical work environment.
- enjoy problem solving and being challenged to come up with innovative ideas.
- can be organised and committed to develop a substantial amount of project work over the two year course.
- have a good grasp of ICT and have good drawing skills.



## ASSESSMENT METHOD

This qualification comprises of;  
Coursework unit = 50% and a Theory paper = 50% (taken at the end of the course)

## SKILLS ACQUIRED

### Students will develop skills in;

- Making, using a wide range of tools and machinery.
- Drawing, including technical drawing.
- Applying maths to sizing, dividing and multiplying of material.
- Use of ICT systems including CAD CAM.

**Specification:** <http://qualifications.pearson.com/content/dam/pdf/GCSE/design-and-technology/2017/specification-and-sample-assessments/Specification-GCSE-L1-L2-in-Design-and-Technology.pdf>

**Assessment:** <http://qualifications.pearson.com/content/dam/pdf/GCSE/design-and-technology/2017/specification-and-sample-assessments/SAMs-GCSE-L1-L2-in-Design-and-Technology.pdf>