

Course Outline

The design and technology GCSE qualification offers students the opportunity to develop knowledge and understanding across a broad spectrum of practical disciplines, techniques and technologies.

The design and technology qualification will support students in their pursuit of a creative field at further education and opens a range of doors leading to job prospects, but not limited to: Carpentry, plumbing, electrician, construction, graphic design, game design, interior design, architecture and product design.

Students studying this qualification will be introduced to the Core technical principles of Design – these principles will teach pupils to develop their technical drawing and creative thinking skills. In addition, the course will allow pupils to improve their practical machinery and tool skills.

Core technical principles – new and emerging technologies, energy storage and generation, modern and smart materials, mechanical devices, materials and their working properties.

Students will address these through working with a selection of materials. These being: papers and boards, timber, metal based materials, polymers, textile based materials, electronic and mechanical systems.

Specialist technical principles - selection of materials or components, forces and stresses, ecological and social footprint, scales of production, sources and origins, using and working with materials, stock forms, types and sizes, specialist techniques, surface treatments and finishes.

Designing and making principles - environmental, social and economic challenge, the work of others, design strategies, communication of design ideas, prototype development, selection of materials and components, tolerances, material management, tools and equipment, techniques and processes.

Pupils are given a specialist creative design challenge as part of their Non-Examination Assessment (NEA) which gives creative ownership to design and make a product that answers one of 3 design themes. Real life solutions to real life problems. The two-year course will provide students with the practical and theoretical knowledge ready to complete the NEA and the end of year exam.

Assessment

Non-exam assessment (NEA): 30–35 hours approx., 100 marks, 50% of GCSE

Written exam: 2 hours, 100 marks, 50% of GCSE

Progression/further study

This GCSE will enable students to proceed to qualifications at A-Level and Level 3 vocational qualifications in Design and Engineering, providing a pathway to Higher Education or modern apprenticeships.

Students wishing to go on to study the following should consider this GCSE as part of their option choices: engineering, game design, architecture, web-design, construction, electrical engineering, graphic design, interior design, illustration, fashion design and civil engineering.