

GCSE Design and Technology - Fashion and Textiles

Component 1: Design and Technology in the 21st Century

Written exam at the end of Year 11, 2 hours duration and accounting for 50% of the qualification.

Core knowledge and understanding –

- Design and technology in our world: industry, enterprise, sustainability, people, culture, society, manufacturing systems.
- Smart materials: smart fibres and fabrics, biometrics, interactive textiles, wearable electronics, micro fibres, phase changing materials, protective clothing, geotextiles.
- Electronic systems and programmable components: graphical conventions, systems, use of control devices, electronics in a variety of wearable end uses.
- Materials: Natural, synthetic, blended, mixed, woven, non-woven and knitted textiles. Properties and qualities of fibres and fabric construction.
- Fibres and textiles: sources of fibres, construction methods, ecological and social footprint, lifecycle analysis, finishing processes for function and aesthetics, impact of industry on the environment and society, fashion business models, costings in the fashion industry, use of computers and CAD CAM machinery, decoration techniques.

Component 2: Designing and making principles

Design and Make project (folder and prototype), 50% of qualification

Students select 1 out of a possible 3 contextual challenges on June 1st in Year 10.

Students will complete a 10 hour 'supervised period' in February/March of Year 11 for making their final prototype. Students will sit a 5 hour practical mock exam in November of year 11 to practice making a prototype under supervised conditions.

Folder : Analysis of design context and development of project brief, analysis of client and user needs, design specification, investigate ergonomics, anthropometrics, environmental, social and economic issues, develop and test practical ideas, investigate the work of Stella McCartney and Matthew Williamson, develop fashion illustration and graphic communication techniques, CAD, applying knowledge of textile theory to own designs, pattern development. 20% of qualification.

Prototype: Select appropriate materials, making and decorating techniques, Use patterns/templates/stencils, join fabrics accurately, shape and manipulate fabrics, apply decoration or appropriate finishing techniques, work safely. 30% of qualification.

Post 16 future pathways: Fashion design, engineering/STEM careers, product design, art textiles, fashion buying, illustration, fabric technologist, fashion retail and marketing.