

KEY STAGE FOUR PATHWAYS

Subject Title: **GCSE Design & Technology**

Subject Team Leader: **Mrs L Thomas (lthomas@perins.hants.sch.uk)**

Examination Board: **AQA www.aqa.org.uk**

Course Content

Students will be given the opportunity to work with a wide range of Resistant Materials; woods, textile based materials, metals and plastics, electronics and mechanical systems. Students will design & make products that satisfy a brief and solve a real world problem.

You will develop technical knowledge in:

- New and emerging technologies
- Developments in new materials
- Energy generation and storage
- Developments in new materials
- Mechanical devices
- Materials and their working properties.

You will develop an in-depth knowledge and understanding of the following:

- Selection of materials or components
- Forces and stresses
- Ecological and social footprint
- Sources and origins
- Using and working with materials
- Stock forms, types and sizes
- Scales of production
- Specialist techniques and processes
- Surface treatments and finishes.

You will demonstrate and apply knowledge and understanding of designing and making principles in relation to the following areas:

- Investigation, primary and secondary data
- Environmental, social and economic challenge
- The work of others
- Design strategies
- Communication of design ideas
- Prototype development

- Selection of materials and components
- Material management
- Specialist tools and equipment
- Specialist techniques and processes

Non Examined Assessment (NEA)

One design project, selected from a given range by the student. The exam board will provide a list of tasks from which each pupil, with support from their class teacher, will choose the most appropriate. The student will develop prototypes of products and produce a concise design folder.

The total time spent on the coursework is expected to be around 30-35 hours. All work on the controlled assessment must be observed and controlled by the class teacher.

Assessment

Written Paper 50% of total marks

2 hours - written and drawn responses with structured and free response sections.

NEA 50% of total marks

Substantial design and make task – you will produce a prototype and a portfolio of evidence

