

GCSE Design Technology: Engineering

Subject Leader: Mr J Fulson

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Curriculum Intent: To demonstrate their knowledge, understanding and skills through interrelated iterative processes that 'explore' needs, 'create' solutions and 'evaluate' how well the needs have been met.

Core Knowledge

Topics:

1. Identifying requirements.
2. Learning from existing products and practice.
3. Implications of wider issues.
4. Design thinking and communication.
5. Material considerations.
6. Technical understanding.
7. Manufacturing processes and techniques.
8. Viability of design solutions.

Procedural Knowledge

Students will:

Complete an Electronic Engineering unit covering technical understanding, focussed practical tasks and a design and make project.

Complete a Mechanical Engineering unit covering technical understanding, focussed practical tasks and a design and make project.

Complete a NEA (coursework) project from June 1st Y10 until March Y11.

Homework:

Weekly quizzes on core content.
Later on, NEA work each week.
Revision on the Seneca platform.

Assessment:

Verbal and informal formative feedback.
Weekly quizzes on core content.
Summative levels for each project.
Assessed and graded exams at assessment weeks.
Assessed past paper questions.

Links to Personal Development:

KS5 Sixth Form A Levels in Product Design or Design Engineering.
Level 3 apprenticeships.

How is my knowledge developed further at Key Stage Five?

The skills learnt at GCSE enable students to enter the A Level course with the necessary skills to complete coursework and respond to design briefs.