

Read like an engineer...

Year 10: *Railhead* Philip Reeve
Where Futures End Parker Peevyhouse

Year 11: *Success Through Failure: The Paradox of Design*
Henry Petroski
Engineering in Society
Rob Lawlor

Content Area 1 – Engineering Disciplines

Engineering disciplines skills.
Health and safety legislation.

Content Area 2 – Applied Science and Mathematics in Engineering

SI units of measurement.
Application of base SI units.
Equations for properties.
Application of equations.

Content Area 3 – Reading Engineering Drawings

Drawing conventions.
British standards.

Content Area 4 – Properties, Characteristics and Selection of Engineering Materials

Properties.
Characteristics.
Materials.

Content Area 5 – Engineering Tools, Equipment and Machines

Marking out.
Modification.
Joining.
Finishing.
Control measures.

Content Area 6 – Hand Drawn Engineering Drawings

A freehand sketch.
A hand-drafted isometric drawing sheet.
A hand-drafted orthographic drawing sheet.

Revision

Content Area 1 – Content Area 9.

Learning Journey

10-11 NCFE

Level 1/2 Technical Award in Engineering

Careers Links

Year 10: holistic understanding, interrelating concepts and issues, integrating knowledge, understanding and skills, knowledge of different sectors, industrial visits and speakers.

Year 11: Using and applying different engineering methods, Synthesising information Evaluating and justifying their decisions, choices and recommendations.

Content Area 7 – Computer Aided Design (CAD) Engineering Drawings

A CAD isometric drawing sheet.
A CAD orthographic drawing sheet.
The uses of CAD.

Content Area 8 – Production Planning Techniques

Risk assessment.
Production plan.

Content Area 9 – Applied Processing Skills and Techniques

Prepare materials.
Modify shape and size of materials.
Join materials.

Project NEA
Non-exam Assessment
Synoptic Project which is externally set by the NCFE.
120 marks. Weighting 60%

Examinations

Written Exam which is externally set by the NCFE.
80 marks. Weighting 40%

To BTEC Level 3 and beyond.....

