

**Key stage 4
NCFE
ENGINEERING**

Year 10

READING ENGINEERING DRAWINGS

- Tolerance
- BS8888
- Symbols
- Scale

CAD DRAWINGS

- Orthographic
- Isometric
- TechSoft

TOOLS, EQUIPMENT & MACHINES

- Marking out
- Modifications
- Joining
- Finishing

MOCK NEA

- Hand drafted /CAD drawings
- Making
- Evaluation

HAND DRAFTED ENGINEERING DRAWINGS

- Orthographic
- Isometric

SI UNITS OF MEASUREMENT

- Current
- Luminosity
- Temperature
- Mass
- Length
- Amount of substance
- Time

HEALTH & SAFETY LEGISLATION

- H&S at work act
- PPE
- Manual handling regulations
- COSHH
- RIDDOR

ENGINEERING DISCIPLINES

- Mechanical
- Electrical and electronic
- Aerospace
- Communications
- Chemical
- Civil
- Automotive
- Biomedical
- Software

MATERIALS

- Composites
- Metals
- Polymers
- Wood
- Ceramics

MOCK NEA

- Hand drafted /CAD drawings
- Planning
- Making
- Evaluation

MOCK NEA

- Research
- Hand drafted / CAD

PROPERTIES & CHARACTERISTICS OF MATERIALS

- Chemical
- Electrical & magnetic
- Optical
- Thermal
- Aesthetics
- Environmental impact

Year 11

NEA LAUNCHED SEPT/OCT.

- 1) Material research (12 marks. 1.5 hours)
- 2) Hand drafted engineering drawings (20 marks. 2.5 hours)
- 3) CAD produced drawings (20 marks. 2.5 hours)
- 4) 4 Production plan (24 marks. 4 hours)
- 5) Manufacture (36 marks. 6 hours)
- 6) Evaluation (8 marks. 1.5 hours)

SUMMER EXAM

Further education

UNIT 1

40% of qualification
Externally set written examination
1.5 hours long
80 marks

UNIT 2:

60% of qualification
Externally set synoptic
Internally marked
20 supervised hours.

ASSESSMENT OBJECTIVES:

- AO1: Recall knowledge and show understanding
- AO2: Apply knowledge and understanding
- AO3: Analyse and evaluate knowledge and understanding
- AO4: Demonstrate and apply technical skills and processes
- AO5: Analyse and evaluate the demonstration of relevant technical skills, techniques and processes.

EXAM REVISION

- Past papers
- Graphic organisers
- Intervention sessions
- Flash cards
- Mind mapping
- GCSEPod
- Knowledge organisers
- Retrieval practice
- Note taking