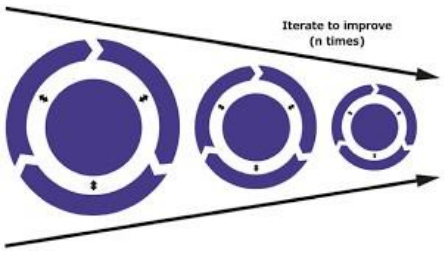


My KS5 Product Design Journey



Worth 50% of the A Level

REVISE

Paper 1: Technical principles – 2h 30' 30% of A Level

Post 18 Destinations



YEAR 13

Theory practice and revision 1-15

Year 13 EXAM 3.4 Mock - January

Hand in NEA 3.4 February

Exam preparation

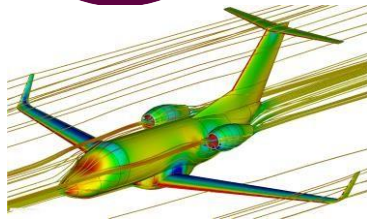
A Level EXAMS 3.4 May/June

2 Exams worth 50% of the A Level

Paper 2: Designing & making principles – 1h 30' 20% of A Level



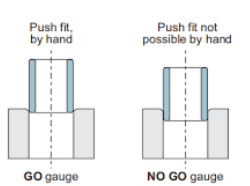
Begin A Level NEA April



Year 12 EXAMS



- 1 Product development
- 2 Inclusive design
- 3 Safe working practices
- 1 Scales of production



Formal drawing QC/QA Material testing and properties

Practice NEA 3.4

4 Planning for accuracy

Unit 15: Responsible design

Unit 14: Design processes

Unit 12: Product design and development

Unit 11: Product design considerations

Unit 10: Modern industrial and commercial practice

Unit 9: Processing and working with metals

Timbers & polymers practical task

1 Working with woods

6 Standards

- 1 Environmental issues
- 2 Circular economy
- 3 Conservation of energy
- 4 Critical analysis



- 1 Design methods and processes
- 2 Design influences
- 3 Designers and their work
- 4 Socio-economic influences

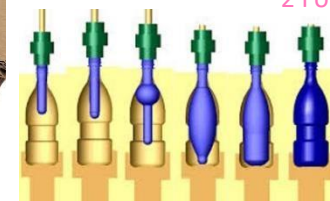
- 1 Use of a design process
- 2 prototype development
- 3 Industrial contexts
- 5 Third party testing

Metals, timbers, polymers

- 1 Performance
- 2 Applications
- 3 Recycling
- 4 Elastomers



- 1 Performance
- 2 Applications
- 3 Recycling
- 4 Elastomers



- 5 Biodegradable polymers



- 1 Stock forms
- 2 Performance
- 3 Testing

- 1 Forming processes
- 2 Bonding, jigs and fixtures
- 3 Finishing

- 1 Stock forms
- 2 Performance
- 3 Testing metals

Unit 8: Processing and working with woods

Unit 7: Processing and working with polymers

Unit 6: Processing and working with papers and boards

Unit 5: Composite, smart and modern materials

- 1 Composite materials
- 2 Smart materials
- 3 Modern materials

YEAR 12 3.4

Unit 13: Design methods

Materials – focused practical task (Lego)

Unit 1: Performance characteristics of paper and boards

Unit 2: Performance characteristics of polymers

Unit 3: Performance characteristics of woods

Unit 4: Performance characteristics of metals

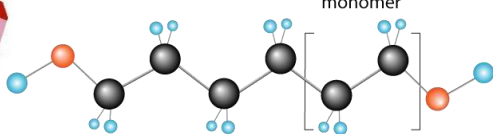
- 5 Developments in technology

- 6 Social considerations
- 7 Product life cycle



- 1 Characteristics of polymers
- 2 Applications of polymers

- 3 Stock forms and types



Summer work (Designers, movements, materials & processes)



KS4 Careers signposting:
 Manufacturing industries.
 Material Science.
 Quality control procedures.
 User-centred design approaches.
 Empathic Design tools.
 Iteration.
 Research - primary and secondary.
 Understanding data and population statistics.
 Prototyping and testing ideas.
 Concept presentation skills.
 Scales of production.
 Manufacturing methods and processes.
 The work of others.
 Architecture, engineering, product design, graphic design.
 Design approaches Inc. collaboration, systems approach.
 Energy and sustainability.
 Mechanics, forces and movement.
 Material selection, working, physical and mechanical properties.
 Social footprint and associated organisations.
 Primary and secondary research collection.
 Interviewing processes.
 Displaying data.
 Applied maths.
 Visual communication.
 CAD/CAM.
 Intellectual property.
 Quality control and Quality Assurance.

KS5 Overview

- At KS5 students will further develop: their use of creative strategies to help avoid fixation; problem solving strategies; their practical skills; their theory knowledge; presentation and drawing skills and exam technique.
- Students will engage in several practical projects including focused practical tasks to develop their practical skills before beginning their A Level NEA in year 12.

Key themes of new GCSE specification (7552 - 2017):

- Iteration i.e. explore needs, create solutions, evaluate how well solutions meet needs
- Prototyping
- Primary research
- Third party feedback & client
- Problem spotting and problem solving
- Addressing the needs of a range of stakeholders

Exam Specification:



Should this QR code not work, please click [here](#) to view the relevant specification.



