

Design & Technology

Module 1

Topic Title:
TECHNICAL PRINCIPLES

Brief Summary of Content Studied:

Become familiar with a wide range of specific materials and their uses.
Be able to identify the classification or group to which they belong.
Have knowledge of a range of comparative workshop tests.
Be able to suggest appropriate workshop tests.

Knowledge Organiser:

<https://drive.google.com/file/d/1fzBMAgepvfYcVtsXQ09YEGM40RFzyBRu/view?usp=sharing>

Module 2

Topic Title:
DESIGN AND MAKING PRINCIPLES

Brief Summary of Content Studied:

Gain an understanding of the iterative design process.
Appreciate the role that user centred design fulfils and be familiar with methods of primary and secondary investigation
Be aware of the key historical design styles, design movements and influential designers and the role they played in shaping product design and manufacture.
Understand how socio economic influences have helped shape product design and manufacture.
Be able to discuss how major developments in technology have shaped product design and manufacture.
Be aware of social, moral and ethical responsibilities of a designer.
Be aware of the importance of accuracy in manufacture.
Understand how to eliminate errors.
Understand how jigs, templates and fixtures can be used to increase accuracy and reduce human error.

Knowledge Organiser:

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Module 3

Topic Title:
TECHNICAL PRINCIPLES

Brief Summary of Content Studied:

Be aware of the importance of environmental issues in design and manufacture and packing using this information to understand the responsibilities in the use of sustainable materials and components.
investigate the methods to conserve energy resources and the concept of circular economy.
Understand and apply the range of enhancement methods used on materials.

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Knowledge Organiser:

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Module 4

Topic Title:
TECHNICAL PRINCIPLES

Brief Summary of Content Studied:

Understand how polymers, metals and woods can be finished to improve their function, performance and aesthetic.

Explore how computer systems are used in production/distribution and storage and how it can be used to develop and present work in 2D and 3D.
be used.

Knowledge Organiser:

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Module 5

Topic Title:
TECHNICAL PRINCIPLES

Brief Summary of Content Studied:

Conduct various analysis of existing products and develop new design proposals.
display safe working practices in the workshop and relate it to the relevant legislation and agencies responsible for health and safety.

students will be able to identify and take precautions to limit the potential hazards in a school workshop.

Understand the six Rs of sustainability.

Knowledge Organiser:

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Module 6

Topic Title:
DESIGN AND MAKING PRINCIPLES

Brief Summary of Content Studied:

Start of NEA portfolio

AO1 Section A – Identifying and investigating design possibilities (20 marks)

Rationale for chosen context clearly identified. Investigation including: disassembly, practical experimentation, visits, surveys and interviews, focus groups, primary and secondary research.

Investigation material thoroughly analysed and initial concepts generated.

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