Tacú leis an bhFoghlaim Ghairmiúil i measc Ceannairí Learning of School Leaders Scoile agus Múinteoirí

Supporting the Professional and Teachers

Wood Technology – Learning Outcomes

Junior Cycle **Wood Technology**

TECHNOLOGY

Strand 1: Principles and practices

In this strand, students learn about and employ the fundamental principles and practices associated with the study of Wood Technology. They learn to work safely and efficiently with equipment and materials, and apply principles of craft excellence through design and manufacture. They will investigate the environmental benefits and impacts of using wood as a natural and renewable resource and learn about sustainable practice.

Strand 2: Design thinking

In this strand, students explore design briefs and their solutions. They use key principles of design and produce sketches, drawings, models/prototypes and artefacts that illustrate actors such as materials, cost, time resources and skills to produce purposeful functional, appealing artefacts. They also consider the environmental and social impacts of design decisions and investigate how to minimise material use and manage waste

Strand 3: Wood science and materials

In this strand, students explore the natura and physical properties and characteristics of wood. They learn how to use the natura aesthetics and properties of wood to enhance the appearance and function of artefacts They explore the role of forestation and wood in terms of local/global ecology and sustainability and recognise the importance of considering the impact on the natural environment when sourcing materials



Scan or click on the QR code to access the Junior Cycle Wood Technology specification at curriculumonline.ie

Action Verbs:

Apply: select and use information and/or knowledge and understanding to explain a given situation or real circumstances

Appreciate: recognise the meaning of, have a practical understanding of

Collaborate: work jointly with others or together on an activity or project

Communicate: use visual gestural, verbal or other signs to share meaning or information; interaction between sender and recipient; both work together to understand

Compile: to build up gradually

Consider: think carefully about something, typically before making a decision

Create: process and give form to the topic of what is to be created using selected methods and material and/or to give the material used a new form

Demonstrate: prove or make clear by reasoning or evidence, illustrating with examples or practical application

Devise: to plan or invent with careful thought

Discuss: offer a considered, balanced review that includes a range of arguments, factors or hypotheses; opinions or conclusions are supported by appropriate evidence

Evaluate: (data) collect and examine data to make judgements and appraisals; describe how evidence supports or does not support a conclusion in an inquiry or investigation; identify the limitations of data in conclusions; make judgements about the ideas, solutions or methods

Evolve: to develop through experience

Planning and managing

The learning outcomes in this element encourage students to develop a range of project management skills while evolving their designs to the creation stage. Students develop the necessary knowledge and skills that will enable them to effectively solve

contextual problems.

fittings

Students should be able to:

learning environment

- 1.1 **explore** key elements required for the completion of tasks justify the selection of plans, processes
- and materials for the completion of tasks collaborate effectively in a workshop
- 1.4 manage themselves and their resources

1.5 represent key information graphically

create sketches and working drawings to

recognised standards using a variety of

explain the function and application of a

range of tools, equipment, fixtures and

2.1 explore design problems

- 2.2 **manage** information and thinking to support an iterative design process
- 2.3 evaluate their own progress to inform future learning
- 2.4 understand key principles of design and ergonomics

Students should be able to:

produce sketches, drawings and models/prototypes to explore design

2.5 communicate relevant information

- communicate a suitable approach to solving a problem
- 2.8 compile a folio through appropriate

3.1 identify common species of trees

- 3.2 **evaluate** the characteristics and properties of common species of trees
- 3.3 understand the properties associated with a range of materials applicable to Wood Technology
- 3.4 evaluate the use of wood in comparison to alternative materials
- 3.5 explain the properties associated with the classification of wood
- 3.6 **discuss** the use of wood in comparison to alternative materials
- 3.7 **justify** the use of materials based on characteristics and properties within a context

3.8 **utilise** the natural aesthetics and

properties of wood to enhance the

3.9 **create** an artefact that demonstrates an

associated with a range of materials

understanding of the properties

applicable to Wood Technology

appearance and function of an artefact

Action Verbs:

Explain: give a detailed account including reasons or causes

Evaluate: (ethical judgement) collect and examine evidence to make judgements and appraisals; describe how evidence supports or does not support a judgement; identify the limitations of evidence in conclusions: judgements about the ideas, solutions or methods

Explore: to think or talk about something in order to find out more about it

Identify: recognise patterns, facts, or details; provide an answer from a number of possibilities; recognise and state briefly a distinguishing fact or feature

Investigate: observe, study, or make a detailed and systematic examination, to establish facts and reach new conclusions

Justify: give valid reasons or evidence to support an answer or conclusion

Manage: to work upon or try to alter for a purpose

Produce: make or manufacture from components or raw materials

Recognise: identify facts, characteristics or concepts that are critical (relevant/ appropriate) to the understanding of a situation, event, process or phenomenon

Represent: bringing clearly and distinctly to mind by use of description or imagination

Understand: have and apply a wellorganised body of knowledge

Utilise: make practical and effective use

Communicating

Creating

The learning outcomes in this element encourage students to select and use appropriate media to communicate design ideas and technical information. Students will use technical language associated with wood science and technology. They learn about the important role that communication plays in addressing global and local environmental

Students will plan and narrate their design evolution highlighting critical features of their solutions to design problems.

The learning outcomes in this element

encourage students to be creative and to

explore ways in which they can apply their

knowledge and skills and appreciate the

practices needed to produce purposeful,

functional, appealing artefacts. Students

develop their creativity across the three

strands and use the natural aesthetics and

properties of wood to enhance the

The learning outcomes in this element

encourage students to appreciate the

wood as a natural and renewable resource,

and to use sustainable practice throughout

their learning. Students explore the role of

forestation and wood in terms of global and

appearance and function of their artefacts.

Environment and sustainability

local ecology and sustainability.

1.8 apply knowledge of and skills in a range

of appropriate existing and emerging

principles, processes and techniques demonstrate principles of craft excellence through the design and

realisation of tasks and artefacts

1.10 **apply** recognised health and safety practices in the use of tools, equipment and materials

1.11 investigate the environmental impacts of

using wood as a natural and renewable

- 2.9 evolve their solutions based on critical
- 2.10 devise templates and models using various media
- 2.11 **produce** purposeful, functional, appealing artefacts
- 2.12 create an artefact having considered factors such as materials, cost, time resources and skills
- 2.13 recognise the environmental and social impacts of design decisions
- 2.14 investigate how to minimise material use and manage waste

3.10 appreciate the role of forestation and wood in terms of local/global ecology and sustainability

- 3.11 investigate the journey of wood from forest to end use
- 3.12 **consider** the impact on the natural environment when sourcing materials





throughout their learning

resource

environmental benefits and impacts of using 1.12 appreciate sustainable practice







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rior Learning:	Learning Outcomes:	Key Learning: Use the action verbs to support your thinking
ocus of Learning:		
How can students experience the Key Learning ?	Evidence of Learning:	How can the Key Learning be assessed?

Ensure assessment aligns with the chosen Learning Outcomes and their associated action verbs.