

Design Technology –YR 9 - TERM 1.1

I LINK

I can link the properties of hardwoods, softwoods, and manufactured boards to their practical uses.

I can link specific tools to their correct function during marking, cutting, or assembly.

I can link wood joints to their role in strength, structure, and appearance of the frame.

I can link classroom theory to practical outcomes in my design and project planning.

I DEVELOP

I can develop my design ideas using accurate sketches and clear annotations.

I can develop my working drawings by adding dimensions and layout planning.

I can develop solutions to improve the structure and appearance of my frame.

I can develop my project plan by refining joint choices and construction steps.



I REFLECT

I can reflect on my design pages and decide how to make them more accurate or detailed.

I can reflect on how well my design meets the brief and user needs.

I can reflect on my use of time and tools to improve my project workflow.

I can reflect on my learning and identify areas I want to improve before making.

I PRACTICE

I can practise accurate measuring and marking using the correct tools.

I can practise cutting mitre joints with a tenon saw and bench hook.

I can practise clamping techniques and prepare materials for construction.

I can practise using hand tools safely and improve my control and precision.

I READ

- BBC Bitesize – Timber Types and Properties: <https://www.bbc.co.uk/bitesize/guides/zkvny4j/revision/1>
- Technology Student – Wood Joints Guide: <https://technologystudent.com/joints/joindex.htm>
- BBC Bitesize – Tools and Processes: <https://www.bbc.co.uk/bitesize/articles/zjjh3qt>

I LEARN

1. I can learn the key differences between hardwoods, softwoods, and manufactured boards.
2. I can learn the purpose and names of wood joints used in my picture frame.
3. I can learn how to work safely and confidently in a practical workshop environment.
4. I can learn how to read and use a cutting list and working drawing before starting construction.

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I PRACTISE

I can practise cutting and assembling joints like mitre, lap, and rebate with accuracy.

I can practise using machines and tools such as the pillar drill and belt sander safely.

I can practise positioning and fixing parts using clamps, screws, and dowels.

I can practise applying surface finishes like sanding and varnishing to a high standard.

I ANALYSE

I can analyse how accurately my frame components have been measured and cut.

I can analyse the quality and fit of each joint as I assemble the frame.

I can analyse whether my spinning mechanism moves freely and functions correctly.

I can analyse where improvements are needed before completing my project.



I ADJUST

I can adjust joints or fixings when parts do not fit together as expected.

I can adjust my sanding or finishing techniques to improve appearance and function.

I can adjust my process when something goes wrong during construction.

I can adjust the positioning of parts to make sure the frame is balanced and aligned.

I EVALUATE

I can evaluate how well my final product meets the design brief and user needs.

I can evaluate the accuracy and quality of my joints, finish, and overall build.

I can evaluate what worked well and what I would improve in future projects.

I can evaluate my progress by comparing my final frame to my original design plans.

I READ

- BBC Bitesize – Tools and Processes: <https://www.bbc.co.uk/bitesize/articles/zjih3qt>
- Technology Student – Wood Joints Guide: <https://technologystudent.com/joints/joindex.htm>
- BBC Bitesize – Surface Finishes for Timber: <https://www.bbc.co.uk/bitesize/guides/zkvny4j/revision/11>

I LEARN

1. I can learn how to assemble and join components accurately using a variety of wood joints.
2. I can learn how to safely operate machines such as the pillar drill and disc sander.
3. I can learn how to fit and test a spinning mechanism as part of my frame structure.
4. I can learn how to prepare and apply finishes to improve the appearance and durability of my product.