

Year 7 Product Design Rotation– Nature Box – Knowledge Organiser



JOINTS you'll create.



Tools and equipment you'll use.

Name of the tool	Image	Description
Making gauge		An accurate tool used to marking out on wood.
Steel Rule		An accurate tool for measuring and marking out
Tri Square		A tool used to check and mark right angles on wood or plastics.
Tenon Saw		A hand saw with a stiff back used to cut straight lines in wood.
Coping Saw		A hand saw used to cut curves and complex shapes in wood and plastics.
Chisel		A hand tool used to cut and remove sections of material.
Mallet		A wood mallet is used to knock wood pieces together or to drive a chisel
File		Used to sharpen or smooth wood, metal or plastics
Glass paper		An abrasive paper used to smooth the edge or surface of wood.
Pillar Drill		A powered machines used to cut holes of different diameter in wood, plastics and metals.
Band facer		A powered machine use to finish wood.

Joint	image	Description
Lap Joint		Made by halving the thickness of each member at the joint and fitting them together
Mitre Joint		Made by cutting across the main surface, usually at a 45° angle, to form a corner.
Butt Joint		Made by cutting across the main surface, usually at a 45° angle, to form a corner.

Materials you'll use.

Material	Image	Description
Pine		Is a naturally grown soft wood. Pine is any conifer in the genus Pinus of the family Pinaceae.
Plywood		Is an engineered wood product made of layers of wood veneer glued together. The grain of each layer is rotated 90°.
Acrylic		Is a plastic material with thermoform properties.

Health and safety



- Always listen to the teacher's instructions.
- Always wear an apron.
- Long hair to be tied back.
- Don't use any equipment you have not been shown how to use.
- Always stand up with your chair under the desk when doing practical lessons.
- Work quietly.
- Be sensible and careful at all times.