



Topic: Wooden Wheeled Children's Toy Project

Wooden Wheeled Children's Toy Project

Design Brief: Design and make a wooden wheeled toy using hard materials and workshop tools.

Health & Safety

Safe and correct use of workshop tools: Scroll saw/Hegnar saw, Pillar drill, Band facer/Sander, Pyrography, Tenon saw, Coping Saw.

Classroom Rules

PPE: Apron, Goggles and Safety Gloves. Safety Rules & training on Laser cutter, pillar drill and band facer

PROPERTIES

STRENGTH	TOUGHNESS	DUCTILITY	DURABILITY	BRITTLE	HARDNESS
How well a material can withstand different forces	How well a material can absorb an impact	How flexible a material is and how much it can bend	How well a material can withstand wear, tear and corrosion	How easily a material can break under a load or impact	How well a material can withstand being scratched

Manufacturing Processes:

Cutting: Tenon Saw



Scroll Saw / Hegner Saw



Drilling: Pillar Drill / Bench drill



Pyrography



Sanding: Band Facer



Key Literacy Vocabulary:

Aesthetics - how humans perceive and judge objects according to their attractiveness

Composite material-made up of several parts or elements.

Design Development-changing/improving a design

Hardwood - the wood from a deciduous, broadleaved tree (such as oak, ash, or beech)

Medium-density fibreboard (MDF) – an engineered wood product made from wood fibres and resin binder (glue)

Pyrography - decorating wood by burning a design on the surface with a heated metallic point

Renewable - Inexhaustible and replaceable

Softwood - the wood from a conifer (such as pine, fir, or spruce)

Sustainable - A sustainable resource can be replaced once used. As a tree is chopped down, many more can be planted to ensure the use of trees can be sustained.

Existing Products:

