

Subject: Technology

Year: 8

Topic: Bird Project

Lesson Sequence

- Research
- Analyse
- Design
- Practical
- Test & Evaluate

Key Assessments

Knowledge Organiser tests and class work mark.

Core Texts / Websites

Design and Technology KS3 class book.

BBC Bitesize.

Technologystudent.com

The things you need to learn in this knowledge organiser are:

- The difference between a softwood and a hardwood
- Names of softwoods (3)
- Names of hardwoods (3)
- Names of the basic tools and machinery in the workshop

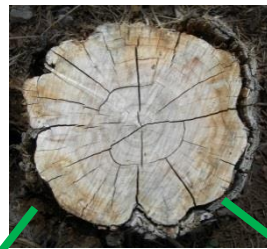
Year 8 Bird Project Knowledge Organiser

Key Words:

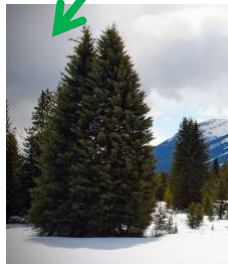
Metal Rule, Marking Out, Coping Saw, Bench hook, Vice, Designing, Files, Cutting, Smoothing, Finish.

Key Skills:

Drawing, designing, shaping, cutting, smoothing, assembling, testing, following instructions.



Natural Wood



Coniferous Trees produce **Softwoods**

- No leaves
- Needles instead, often has cones.
- Doesn't lose leaves in winter
- Quick to grow
- Easy to work with
- Cheaper than Hardwood







Examples: Pine, Cedar, Redwood



Deciduous Trees produce **Hardwoods**

- Large broad leaves
- Trees loose leaves during winter
- Long to grow
- Expensive
- Difficult to work with

Examples: Oak, Beech, Mahogany, Cherry, Walnut, Maple, Teak and Balsa.

Natural Timbers (Wood)		
Softwoods	Properties/Characteristics	Uses
Scots Pine (Redwood) 	Straight grain, knotty, easy to work with, finishes well, durable, widely available and relatively cheap.	Largely used for construction work, needs protecting if use outside. Stair bannisters, cabinets, furniture.
Red Cedar 	Lightweight, knot-free, straight grain, contains natural oils that protect from weather, insects or dry rot. It has a fine silky surface.	Outdoor joinery – cladding of buildings and wall panelling 
Spruce 	Fairly strong, resistant to splitting, easy to work with	General indoor furniture
Hardwoods	Properties/Characteristics	Uses
Beech 	Very tough, hard, straight and close grained, as a result withstands wear and shock. Polishes well. However can warp.	Chairs, floorings, tools and kitchenware (wooden spoons/spatulas) turnery, toys, steam bent furniture
Ash 	Wide-grained, tough, very flexible and finishes well	Tool handles, sports equipment – cricket stumps, hockey sticks

Metal Rule

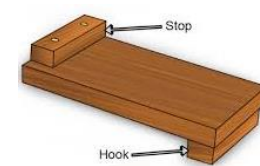


Tools & Equipment

Try Square



Bench Hook



Pillar Drill



Belt Sander



Sand Paper



Coping Saw



Flat File & Needle File



Tenon Saw

