

## Hazel coppice crafts

### Harvest and use coppiced hazel in DT projects

**Aim:** Understand coppicing and the use of specialist tools

If you have hazel in the grounds, coppice it to provide free DT resources. Coppicing is a means of managing the size of trees and stimulating new growth, involving pruning the tree right back to the ground. This provides a crop of straight lengths of hazel rods for crafting materials.

**Activity:**

Make a wizard's staff or wand, using a length of hazel, a bound handle or loop and with some carving and decorating. For more detail, see the *Pappus* Playful Springboards - Hazel and the Design Technology Learning Springboard "Grow your own craft resources".

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## Timber in engineering

### Examining the qualities of different timbers and their uses

**Aim:** Use the *Pappus* Plant ID sheets, and internet research to find out more about the construction qualities of timber.

**For example:**

- Ash – find out how and why this is used in the Morgan car factory.
- Birch – furniture construction and interior design making the most of its colour, texture and flexibility.
- Horse chestnut – light furniture, carving and boxes - since it has only low strength and elasticity, it is unsuitable as construction timber. Horse chestnut is valued more for its appearance and not for its timber production.
- Softwoods such as cedar are commonly used for building construction – explore why this might be.

## Acorn snakes

### Create and test an articulated toy

**Aim:** Learn safe use of tools and the principle of tension to strengthen a structure.

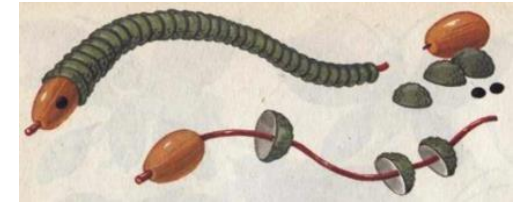
**Resources:**

- Bradawl or palm drill
- Acorns - lots
- Bodkin and twine

**Activity:**

Separate the acorns from their caps. Use the bradawl or palm drill to make holes through the acorns and the acorn caps. Thread the twine through the holes, using the bodkin. Use a whole acorn as the snake's head; tie the twine at both ends but leave a long 'tail' of twine. Experiment to test the strength of the articulated toy, by increasing the length of thread through the acorn caps, or tightening it.

- You could also use elder beads - see the *Pappus* Playful Springboards - Elder



## Design, create, evaluate – a Hallowe'en project

### Compare the effectiveness of various broom materials

**Aim:** To design, make and evaluate a witches' broom. Which material is more robust/long lasting?

**Activity:**

Research designs and materials for brooms and brushes from mythology, stories and around the world (e.g. bamboo brooms in China). There is even a plant called broom.

- Collect around 20 birch twigs and sort them into shorter and longer lengths. Start with shorter twigs for the middle and attach longer ones so that they are aligned at the bottom and protrude at the top to form a handle. About 5 cm from the upper edge, wrap tightly with twine and tie. Repeat this tie several times to form the handle. Cut the twigs to the same length at the bottom brush end and at the top, handle end.
- Test the broom – what other twigs would work?