

Coppicing



Traditional country crafts seem to have practically died out in Britain, but on this walk through Perry Wood you'll see that one, at least, is still being practised. It's the craft of coppicing and you'll see evidence of it early in this walk.

Coppicing, which comes from the French word 'couper' to cut, is an ancient way of managing woodland. When small trees are cut down they soon send up new shoots from the base. If there is plenty of light around them they grow tall and straight - providing a useful supply of timber that can be used for a wide range of purposes: it can be made into charcoal and firewood, woven into hurdles, cut into pea sticks, used to make hop poles, or turned into sturdy fence posts. Different woods have different qualities. Ash, for example, absorbs shock well, so is very good for making tool handles.

The most commonly coppiced wood today is sweet chestnut, which is highly durable and weathers to a dark grey. It is used to make fence posts, palings and hop poles. The species was introduced to Britain by the Romans, probably to provide a ready supply of chestnut flour for the legionaries, who longed for food like mama made. When blocks (or 'coups') of trees are coppiced they can go on producing wood for hundreds of years. Sweet chestnut grows very quickly and can be harvested every 12-15 years.

The beauty of coppicing is not simply that it provides timber without destroying trees. It also helps to provide a valuable habitat for wildlife. That might sound strange but it works like this: whenever the trees are coppiced, a clear patch is created in the wood. As the sun floods in, wild flowers like bluebells, sage and foxgloves spring up. You'll also see willow herb, often known as fireweed because it loves to grow on ground that has been disturbed. These plants in turn attract insects such as butterflies and beetles. In time the trees begin to grow back, creating a scrubby area that is an ideal breeding ground for birds.

In chestnut coppice you find an extraordinary range of bird species, including blackcaps, chiffchaffs, yellowhammers and nightingales. Eventually the chestnut coppice grows tall and creates a dense canopy. This is not quite as attractive to wildlife, so they move on to the next cleared area. The seeds of the plants remain dormant in the soil then spring into life when the plot is cleared again. As well as sweet chestnut, you'll see oaks, beeches and Scots pine as you wander through this working woodland.

Design a Visitor's Centre in Perry Woods

'The woods you have visited has just been given a very large grant for a new visitors centre. It is your task to design a building that will be constructed on the site.'

The aim of this activity is to make pupils aware of the criteria for a successful building. The general principles can be applied to any object that has been designed, so the approach offers transferable ideas and skills.

Start with something that the pupils know and understand. An MP3 player. Ask them what makes a well designed MP3 player...

- It is easy to work
- It looks cool
- You can get lots of tracks on it
- It doesn't break easily
- It's really small
- You can get different colours/fascias

From this list sort the observations into three categories:

- **Functionality:** the building does its job
- **Build quality:** it is well made
- **Impact:** it looks and feels good

You can then transfer the principles over to the built environment and any proposal for a visitors centre.

You could use Venn diagram to illustrate how the best buildings will include elements of all three aspects of good design, functionality, quality and impact.

To look at all three of these categories divide the class into groups each with a responsibility to look carefully at one category.

CABE, the Commission for the Built Environment suggest the following:

Functionality

It's a good design if:

- The building is easy to use and is suitable for what it is used for
- The building is easy for everybody to get to and easy to move around in
- The rooms and spaces are the right size and well arranged

Impact

It's a good design if:

- The building has its own character and personality. It might not necessarily be beautiful but it makes a statement of some sort.
- The shape and materials add to the quality of the building
- I like being inside the building
- The building fits in well with the community and surroundings. It does not dominate or conflict with the surroundings but could be in contrast to the surrounding environment.

Build Quality

It's a good design if:

- The right materials were used to make the building
- The building is well made
- The building is environmentally friendly. Is it sustainably designed and maintained?
- The building feels healthy and safe. Is the light and air quality good?

The sustainability of a building is a factor that should be inherent throughout all three of these qualities. For instance –

Will the building last?

Is it made of sustainable materials ' and resources?

Will it be energy efficient or ideally carbon neutral?

Can the building be easily adapted in the future should its use change?

Is the space easily accessible and inclusive in its design?

The pupils should then be set the task of producing a design for the visitors centre. The time taken for this task and the depth of research will depend on the curriculum time available. It may be that the pupils produce an annotated picture, or they may produce a model.



At the end of the activity the pupils should apply the DQA...

The design quality analyzer !

- Will the building work? (FUNCTIONALITY)
Will it be a good place to work in and visit?
- What impact will the building have on the site, the area and the visitors. (IMPACT)
- Is the building a high quality structure? (QUALITY)

For some very good material on design principles see the CABI web site and their education publications.

<http://www.designcouncil.org.uk/our-work/cabi/>

Perry Wood Design Challenge

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What causes path erosion and what can we do about it?

More and more people are walking in the countryside and visiting places like Perry Wood. Thousands of people enjoy the countryside and find peace and relaxation in the natural environment. This use of countryside paths can lead to erosion, the wearing away of the surface of the path. In some places there are so many visitors the paths become worn and damaged. Sometimes water runs down deeply worn paths and washes away the soil. The paths become difficult to walk along and the soil is washed down the hillsides.

People should not be stopped from visiting the woods but something needs to be done to protect them. This is one of the challenges faced by the managers of woodland areas.

Your task is to work out which are the main causes of erosion in Perry Wood.

- Begin by discussing the factors
- Sort them into physical and human causes
- Put the causes in the table in order of importance

TGuide. Select an eroded area when you visit the woods. Bring the attention of the children to the issue. Take some photographs for work in class

Physical Factors	Human Factors

You might consider the following:

The height of the land

The popularity of the path

The number of people using the paths

The amount of rain

The steepness of the slope

The closeness to parking and roads

The amount of grazing

The type of soil and vegetation

Soil Depth

Vegetation type

Underlying geology

Soil Type

What do you think could be done to solve this problem?

One answer might be to make stone paths. Perhaps the soil can be turned over and seeded with hard wearing grass. What else would you suggest should be done?