



Woodlands in the World

Key Stage 3 Geography

Teachers' notes

This unit of work is based on the first part of **QCA Geography Unit 23 'Local Action, Global Effects'** from which the case studies on rivers have been replaced by studies connecting local woodlands with those further afield.

Learning Objectives Covered by this Work

- ② Use fieldwork techniques to identify different leisure uses.
- ② Select and use appropriate graphical techniques to present evidence on maps and diagrams.
- ② Determine how conflicting demands on an environment arise.
- ② Consider the effects of environmental planning and management on people, places and environments, including how and why attempts are made to plan and manage environments.
- ② Appreciate how places are interdependent and evaluate the effects on the environment of the use of a resource.

Before the Visit

Select a local area of woodland to consider the ways in which this is used by people, to survey different uses and to consider the conflicts of interest that occur between different users.

Involve pupils in preparing for the investigation and prepare them thoroughly for their fieldwork.

In the Woodland

Record all direct or indirect evidence of different woodland uses by the following means:

- ② Recording on the worksheet provided or in a previously prepared database on a palmtop computer.
- ② Taking photographs or video recording.

- ② Drawing annotated sketch maps and diagrams.

The list of uses made of the woodland should include 'misuse' e.g. tipping and vandalism. If possible, meet with a site manager - see contact details in part 1 of this pack - to identify the planning and management issues involved in catering for different interest groups.

Make an estimate of the frequency of each use e.g. daily, weekly, etc.

As well as identifying current uses of the site, suggest possible past and future uses. Past uses of the woodlands in the 'Fuelling a Revolution' programme include the production of charcoal for the early iron and steel industry.

Follow-up Work

Produce a 'neat' record of information collected in the field. An ICT mapping package could be used to show the spatial distribution of different uses and their impact.

Use evidence collected in the field to establish possible conflicts of interest between different uses and user groups using an 'impact matrix' with the different woodland uses listed on both axes. How one activity might affect another is then recorded in the boxes where relevant axes intersect.

In groups, identify and talk about conflicts between uses and prepare a detailed plan for managing different activities so that conflicts of interest are resolved. Pupils could write up their suggestions as notes for a presentation to the managers of the woodland.

Produce an information leaflet about the wood for the local community, parents and children to show how they can play a part in protecting it.

What is charcoal used for now? Currently over 40,000 tonnes of barbecue charcoal are consumed in Britain annually. Of this amount, over 95% comes from non-sustainable sources such as tropical forest and mangrove forest. Carry out individual or small group research to find out where charcoal comes from, starting with the information on the accompanying pupil sheet. Find out about the effect of obtaining charcoal on the forests from which it is obtained.

How could local woodlands be managed sustainably to produce charcoal without significant detriment to other woodland users?

Design an advertising campaign to encourage people to use sustainably produced charcoal from local woodlands, explaining the reasons why this is preferable to much imported charcoal.



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Key Stage 3 Geography Pupil sheet

Charcoal Factsheet

What is charcoal?

- ◎ Charcoal is made from wood, dried and carbonised in an atmosphere with limited oxygen.
- ◎ Charcoal burns hotter and for longer than wood.

What is charcoal used for?

- ◎ Well over 2/3rds of charcoal is used in cooking
 - for barbecues
 - in Indian and other fast food restaurants
- ◎ Charcoal is also used in the manufacture of
 - boot polish
 - fertilisers & compost
 - air filters
 - fireworks
 - dog biscuits
 - glass

Where does charcoal come from?

Charcoal has been made in Britain for thousands of years.

- ◎ It was used to smelt iron and to produce steel before the use of coal. Charcoal produced from the woodlands of South Yorkshire was a vital component in the development of South Yorkshire's steel industry.
- ◎ It created work for charcoal burners.
- ◎ The production of charcoal from wood harvested by coppicing is **sustainable** - the same tree can be cut back to its base and then grow back again and again and again
- ◎ Because of their varied structure, coppiced woodlands used for charcoal production make good homes for wildlife.

Now hardly any of the charcoal that we use in the U.K. is produced using wood from British woodlands. In 1995, only about 5% of the charcoal used in the U.K. was home produced.

So where does the charcoal we use now come from?

Much of the charcoal we now use comes from mangrove forests in **South East Asia**, in particular from **Indonesia**.

Why does this matter?

- ◎ Mangrove forests protect shorelines and provide food and shelter for wildlife.
- ◎ Over half of the mangrove swamps have disappeared in some areas of South East Asia.
- ◎ Local people get paid very little to produce the charcoal. Instead, most of the money goes to companies abroad, including in the U.K.
- ◎ Transporting the charcoal from Asia to Britain uses lots of fuel and increases pollution.

Could more charcoal be produced using sustainably produced wood from British woodlands?

Yes, it could! One big do-it-yourself chain is seeking to produce as much charcoal as possible from sustainably managed British woodlands.