

Anglo-Saxons and the Environment

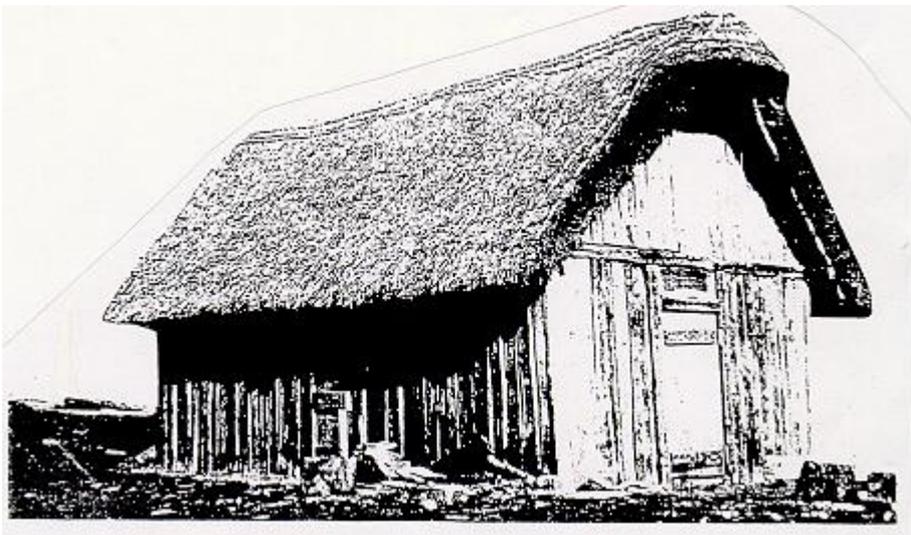
These notes are for schools which have taken part in our Anglo-Saxon programme. They are intended to be used when following up the activities which the children do at Bishops Wood. It is not possible to fit all the activities in during one visit. It is important that the children do not expect to necessarily do specific activities related to this pack though of course you may wish to do some of the activities back in school after the visit.

The notes contain contributions from the Bishops Wood staff and some illustrations from 'Practical Prehistory', a publication of the Education Service and Archaeology Section of Hereford and Worcester, reproduced by kind permission.

Feedback about the contents to John Rhymer or Helen Ferguson would be appreciated so that the notes may be modified appropriately.

For further information about the construction of the Saxon Hall, contact Bob Green.

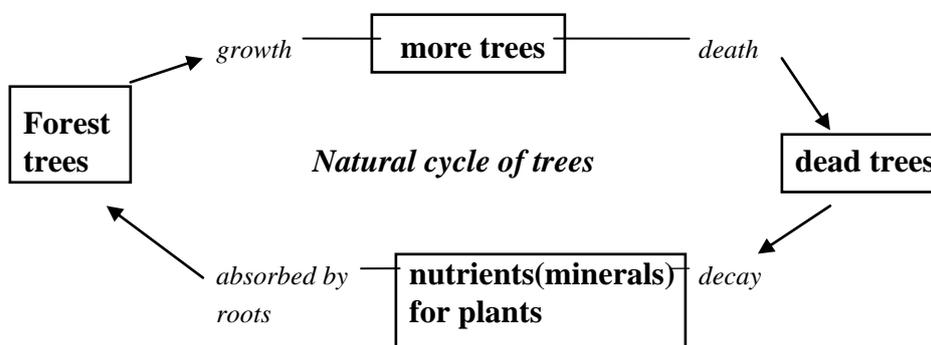
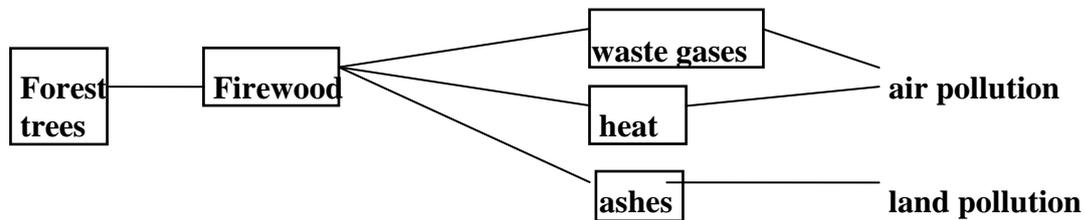
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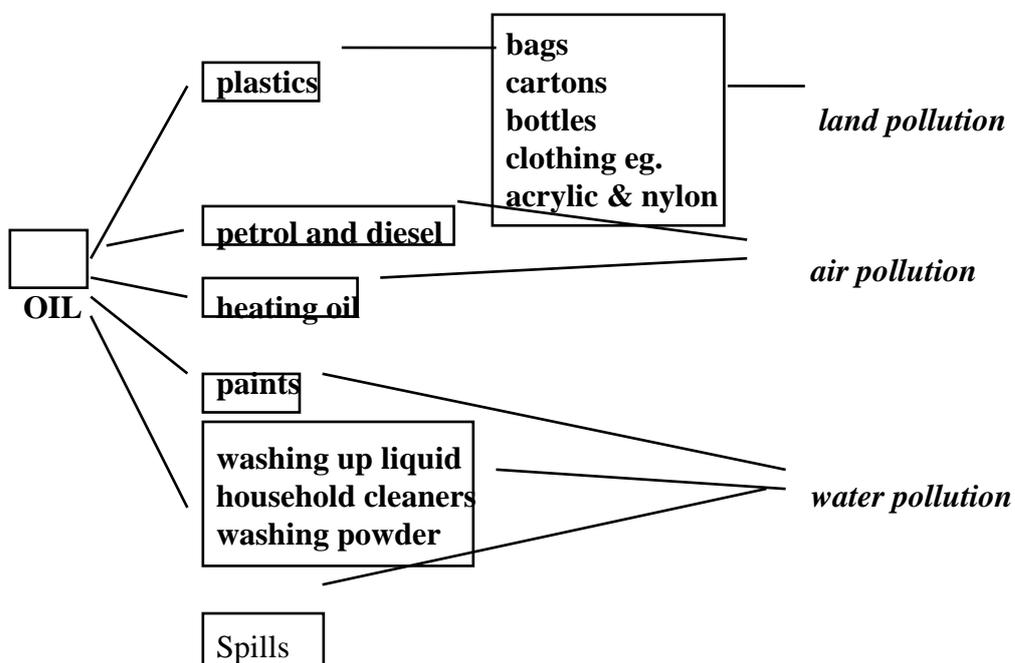
SUSTAINABLE SAXONS? MATERIALS AND ENERGY

We cannot claim that Anglo-Saxons intentionally took any more care of the environment than we do now. Humans have had a negative impact on the Earth for a very long time. This means that they remove and use resources, changing them in such a way that they cannot be returned to the earth in an easily reusable form. However, the population was much smaller and many materials were obtained locally. Even so, Anglo-Saxons and their agriculture altered the landscape of Britain.

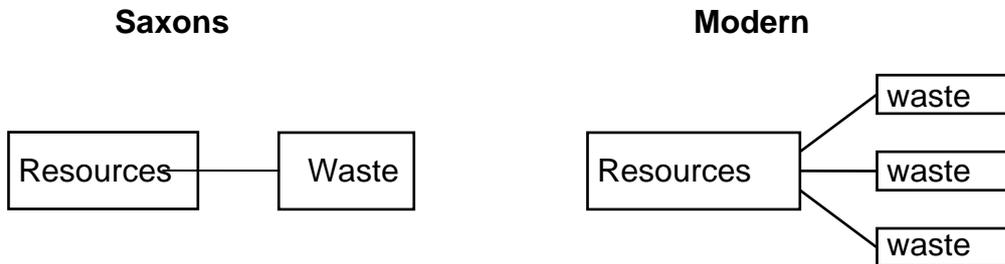
Children could be asked to think about examples from Saxon times e.g. firewood compared with the natural cycle of trees.



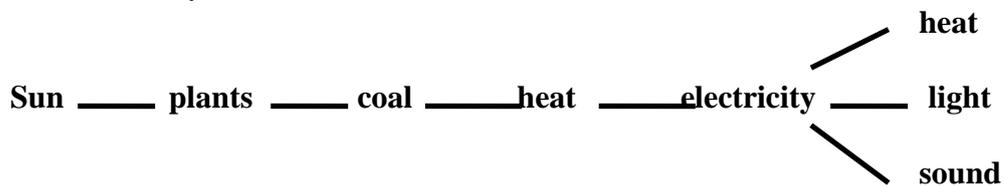
Other links with the Saxon programme are metal e.g. iron (and steel) from iron ore and clothing from sheep and flax plants. Children could compare complex processing of modern resources e.g. oil, with the Saxons' uses of resources (see above).



All **materials** in the natural world are cycled. Children may be able to think of other examples - water and gases such as oxygen and carbon dioxide. Children could see that when humans break these cycles then materials are not reused. Pollution is always the end result of this. They can compare Saxon life with modern life to understand the differences in scale of use and also the timescale involved in the production of the polluting wastes.



Energy being ultimately derived from the sun and ending up as heat, light and/or sound is not cycled.



SUMMARY Human effect on the environment :

1. Uncoils cycles of materials converting them into one way systems creating polluting wastes.
2. Speeds up and changes energy flow.

These two effects along with loss of habitats could be considered to be the causes of all environmental problems.

BUILDING THE SAXON HALL

Children visiting Bishops Wood in past years have had the chance to help with the reconstruction of the Saxon Hall -which is now finished. This is based on the archaeological evidence found at West Stow. Volunteers at West Stow reconstructed a hall based on the evidence available on the exact site of a seventh century building. We have learned from their experiences and our hall was constructed to the same size and on the same floor plan.

Only very important buildings such as churches and cathedrals would be made of stone. Stone required much labour from skilled craftsmen and thus such buildings would be very expensive. Halls and houses of wood and thatch could probably be built by the villagers themselves.

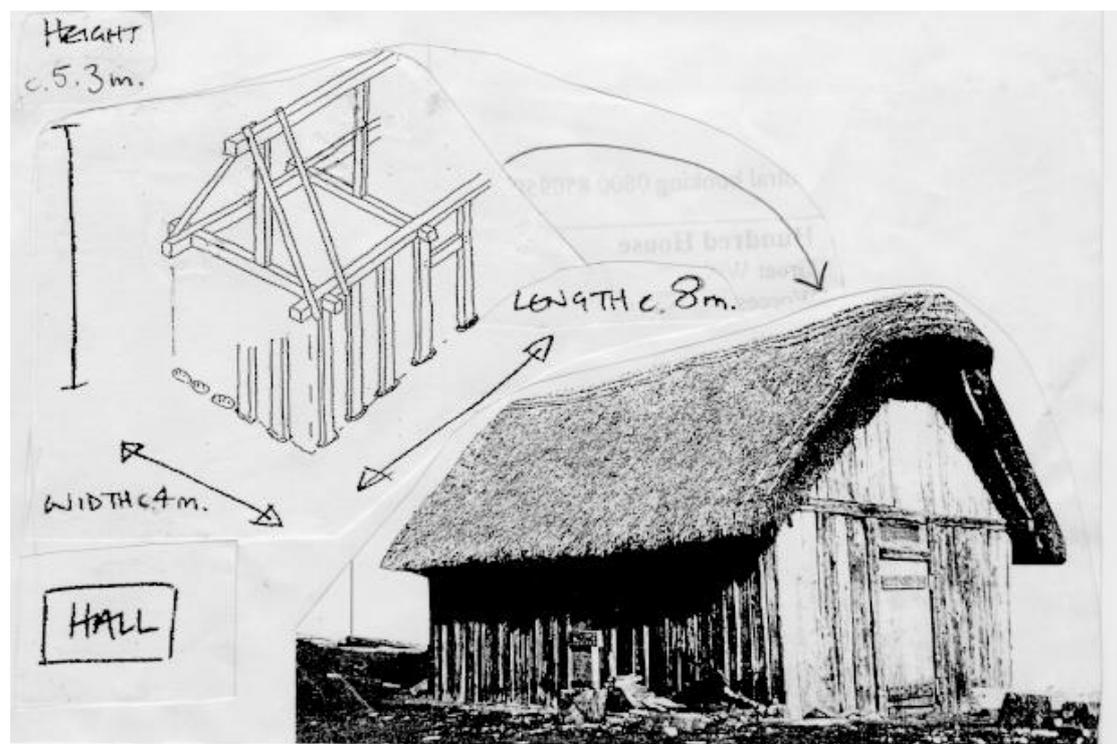
The materials

OAK for main beams, posts, and planks for floor and end walls come from trees felled for the purpose (For details see **WOODWORKING** sheet). *In our hall we used 100 trees.*

ASH and HAZEL for the roof spars (and for the wattle for side walls) would be cut on a 5-10 year cycle (coppiced) from stumps called coppice stools, producing a sustainable crop. *2.5 miles of string were used to tie the roof spars in our hall.*

WHEAT STRAW for thatching would be a by-product of food production using a material which nowadays can present a problem of disposal. *Our hall has straw.*

REEDS were also used for thatching. These were cut regularly from reed beds around lake and river banks. This would also be a renewable resource.



Thus buildings of this sort were made of natural materials which would biodegrade (and also catch fire easily). The thatch would be quite waterproof but let out some smoke. This type of post and beam building would not have lasted long as the posts would rot quite quickly . There is evidence from post holes that such buildings were propped up to extend their lives when they started to fall over.

Building and the environment. Some points for class discussion.

Compare the environmental impact of Saxon buildings with those of present.

- Which aspects of building use up the most resources?
- Which use materials in a sustainable or renewable way?
- Which use up most energy and which create pollution?
- Does all building destroy plant and animal habitats?
- Is it better for the environment to create temporary buildings or to use materials (eg. stone, concrete , treated timber etc.) which will last a long time ?
- Would the Anglo-Saxons have treated materials to make them last longer if they had known how?

SAXON	PRESENT
Blended with environment	Sometimes blend with environment. Usually not
Local trees used (R)	Local and imported trees used (RP)
Trees felled by hand	Fossil fuel used for tree felling. (RP)
Trees selectively felled (R)and coppiced	Generally clear felled (R)
Timber untreated	Timber treated with chemicals (RP)
Roofing of plant materials	Roofing of clay or concrete tiles or slate (RP)
Materials biodegradable so sites revert "to nature"	Human made materials remain in environment even when buidings are no longer used
All natural materials requiring little extra energy input	Human made materials eg. cement and concrete, metals, paints, plastics, fibres, glass (RP)

R=resources (including energy from fossil fuels) used in a non-renewable way
P=pollution caused as a result of this activity.



WOODWORKING

Tall, straight, large girth trees would have been more widely available to the Anglo-Saxons than today in England. Large quantities of native trees were consumed for many purposes - building, tool making ploughs, vehicle construction, fencing, furniture, buckets, cups, musical instruments, bowls, bottles, spoons and so on as well as for firewood and charcoal making. However it is likely that most of the loss of woodland during this period was clearance for agriculture. The Saxons' use of woodland through selective felling and coppicing would have enabled woodlands to be used productively for many centuries.

The Anglo-Saxons used sophisticated woodworking skills developed over many centuries.

Timber would have been used directly after felling so it was unseasoned (green) which is easier to work. The type of trees used comes from evidence at waterlogged sites where wood is preserved (due to lack of oxygen preventing bacteria and fungal growth) or from charcoal remains of wood in little or no air.

Tool use

Axes - the main tool used for felling and shaping timber usually requiring frequent use of sharpening stones. Saws were not used for woodworking. Ash would make the handle, iron and later steel, the blade. At Bishops Wood the technique of producing a square sectioned beam from a round trunk has been copied faithfully. Four longitudinal lines are marked out and the excess bark and wood trimmed away (hewn) with axes leaving four flat smooth surfaces - a very labour intensive and tiring job!

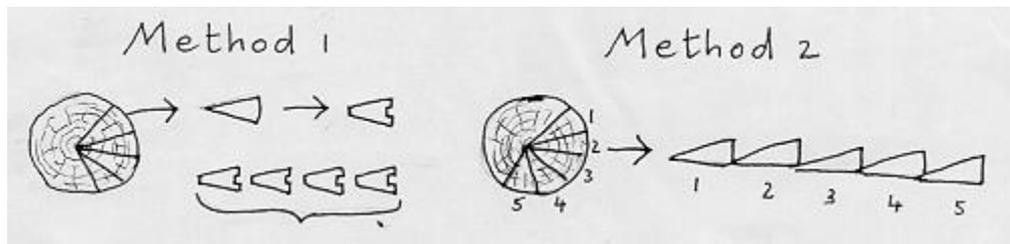


There is speculation as to why the Anglo-Saxons would have gone to the trouble of cutting square sectioned beams rather than simply hewing off one side to produce a flat surface for the attachment of walls. This might have been the easiest way of removing the sapwood to leave the more durable heartwood.

Wedges - these are used with wooden mallets at Bishops Wood to demonstrate the technique of wood splitting along the grain which produces planks which are strong and do not shrink as much as those which can be produced by sawing.

The Anglo-Saxons could use thin planks fastened together in different ways to make walls, methods used in the Bishops Wood Saxon Hall.





Wood splitting formed the basis for all smaller wood requirements from tools to utensils to firewood. At Bishops Wood a **froe** and **mallet** are used to split wood.

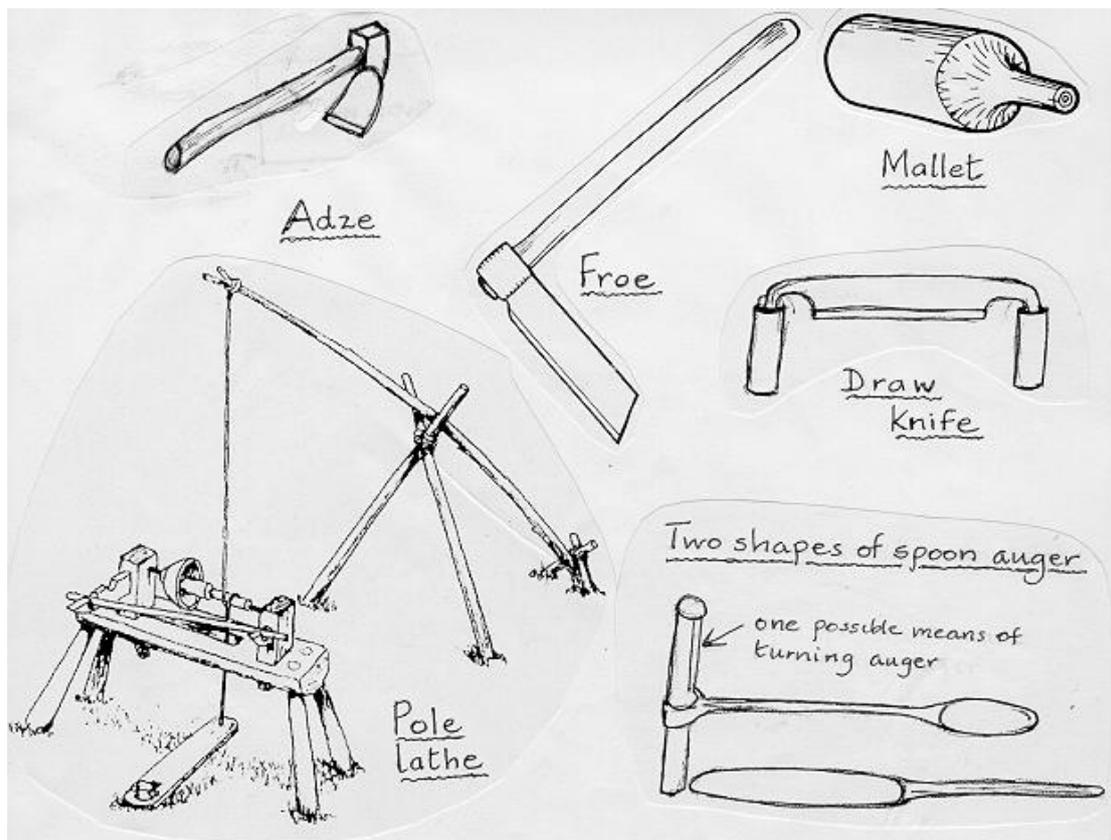
Spoon augers were used by the Saxons for boring holes. Pegs hammered into these held the timbers together.

Bowls, cups and bottles would have been turned on a **pole lathe**.

An **adze** is a tool with a broad steel blade set at right angles to the handle and was used by Anglo-Saxons for shaving or shaping wood. At Bishops Wood a **draw knife**, a more recent tool is used to shave and shape small pieces of wood.

Care of tools - Repair, Reuse, Recycle. Some points for class discussion.

As with everything which they made themselves the Anglo-Saxons would have taken great care of their tools, repairing them when broken and re-using the parts for other tools. This reflects the time, energy (and perhaps “money” in terms of trading value) which was required to produce them. Children could be asked to think about care of toys and equipment. Generally they have little direct knowledge of the energy and material values of such articles so there is less incentive to look after them. The Anglo-Saxons would have been more aware that such items did not “grow on trees”!



Coppicing versus clear felling

Trees can be coppiced - cut so that they grow back to provide a constant source of new shoots i.e. a renewable resource.



Global wood. Some points for class discussion

Children could discuss how this managing or harvesting technique compares with clear felling areas e.g. for house timbers.

The latter would result in Anglo-Saxons having to travel further and further for timber. A link could be made to the necessity for people in many countries to walk long distances to obtain firewood for fuel. In some cases over-exploitation by foreign companies leaves native people without resources.

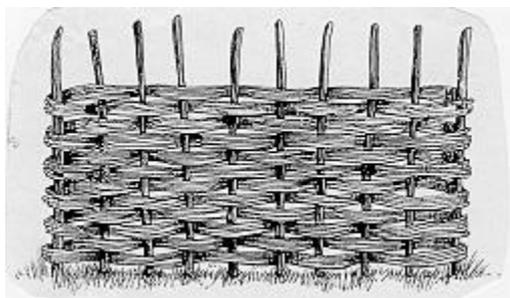
Hurdles

At **Bishops Wood** children can bend thin, flexible willow twigs around uprights to make a miniature woven fence or hurdle to take back to school.

The Anglo-Saxons used full size fences or hurdles woven from willow or hazel which they could move around to pen animals in different areas (see also **Food growing and nutrient cycles**)

Similar techniques were used to weave baskets of various types and sizes and also wattle walls for buildings which would be covered with daub - a mixture of clay, straw and animal dung.

This is one of the three types of wall which is part of Bishops Wood Saxon Hall.



METAL WORKING

Iron production

Iron was plentiful because most English counties had iron ore deposits. However it would have been considered a precious commodity because it was difficult to produce, requiring very high temperatures, huge quantities of charcoal and much labour.

Precious Iron Facts

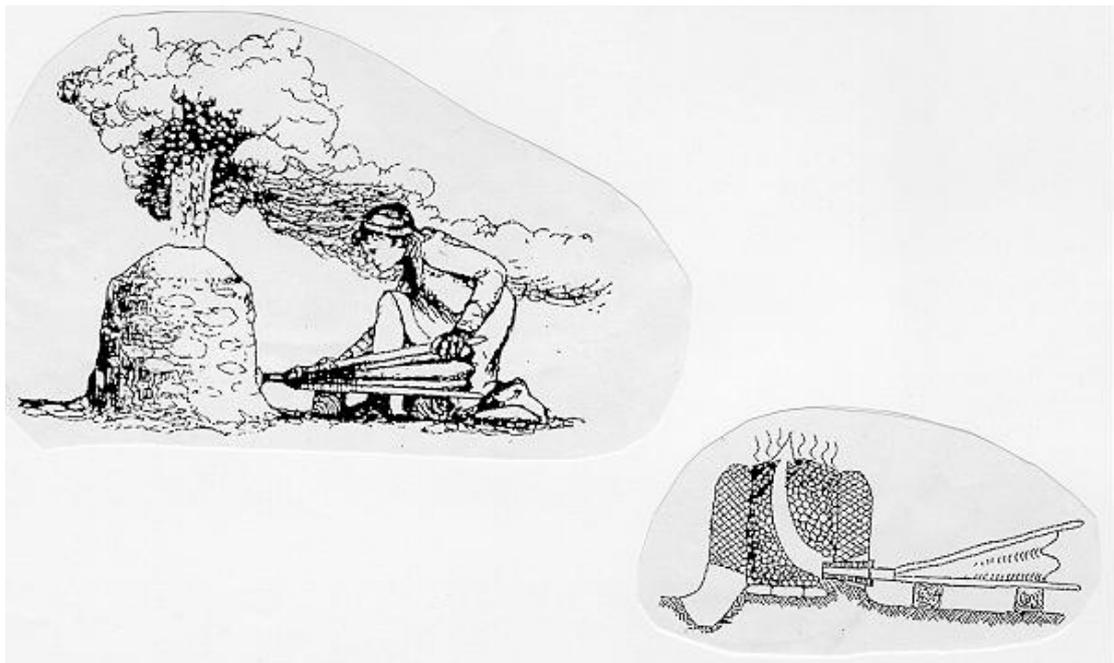
100 Kg charcoal uses 700 Kg wood.

1500°C plus is needed in the furnace.

It takes 12 hours to make 3 Kg raw iron.

1 Kg finished iron bar needs 100 Kg charcoal.

1 Kg finished iron bar takes 25 man days work.



Iron Working

At Bishops Wood iron has been heated in burning charcoal. The temperature was increased by blowing air into the charcoal by means of bellows until the iron is red hot and softer. The metal was beaten out using hammers to show how it could be moulded into tools and weapons. Steel is made from iron by firing, beating and cooling repeatedly. This adds carbon from charcoal to the iron making it harder so able to be sharpened (but also more brittle). Blacksmithing to produce such changes in materials would have been associated with secret, handed-down knowledge which appeared to be magical.

Children can see charcoal being made at Bishops Wood and take samples away.

The Anglo-Saxons used charcoal and human energy to work iron. Nowadays energy from fossil fuels such as coal is used, not only to heat the metal but also to operate presses and power hammers. Modern blacksmiths however, still use quite a lot of human energy!

Rainforest Connection

Charcoal is formed when wood burns in little or no air. Waste construction wood, coppiced and dead wood could have been used by the Anglo-Saxons.

Children mainly know charcoal as a fuel in a barbecue and as an art material. The latter is commonly willow (which can be coppiced - see **coppicing**). The former is usually tropical rainforest wood so children could discuss whether to suggest to their families that they use English charcoal which comes from locally coppiced wood.

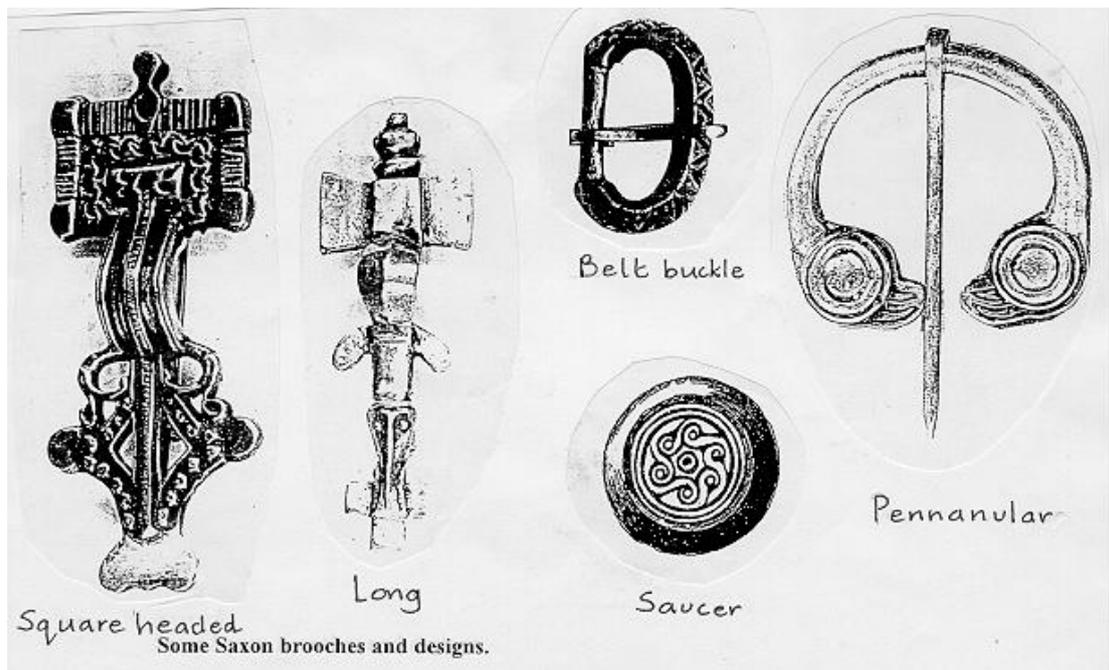
Anglo-Saxons - Polluters - But Recyclers. Some points for class discussion.

Iron production is very polluting, producing slag (impurities from iron ore) and gases which generate acid rain and add to global warming. Many iron and steel objects today end up in land-fill sites (so reducing plant and animal habitats).

- Children could list/look at some of the many objects we produce and use. We pay a high environmental price for them.
- The Anglo-Saxons re-forged and reused broken iron objects such as tools and weapons thus saving energy and materials. Did they do this to help the environment? If not, why did they do so?
- Should we recycle steel and aluminium cans and other materials? How can that benefit the environment?
- Is it better to repair and re-use items rather than recycle them?

BROOCH MAKING

Anglo-Saxons did not have buttons. They would have pinned together garments with brooches which became quite ornate. Bronze, silver and gold melt at lower temperatures than iron and so could be cast into shapes. Iron for pennanular brooches worn by men and poorer women would have been forged locally. For more ornate brooches, specialist producers would have developed during the Saxon period and, as with other crafts, traded extensively. Children at Bishops Wood can hammer copper into distinctive brooches of their chosen designs, inspired by Saxon patterns, to add to their Saxon costumes.



Some Saxon brooches and designs.

Why wear brooches? Some points for class discussion.

- For what reasons did the Anglo-Saxons wear brooches?
- What other jewellery did they wear?
- Who wore jewellery? Males/females? Rich or poor?
- What materials were brooches and other items made from? Where did the materials come from? What does this tell us about the world in Saxon times?
- Why were people buried with jewellery and other items? What does this tell us about their religious beliefs? Why are jewellery and tools not found in later Saxon graves?
- Who wears jewellery nowadays? Why?

FOOD AND COOKING

At **Bishops Wood** children have prepared and sampled Saxon stew, roast parsnips and stewed mushrooms. Currently in the programme bread is being cooked over a fire and offered for tasting! The recipe contains flour (spelt wheat or rye), honey, water and optional additions of shortening and dried fruit.

Saxon Stew Recipe

2 pints of water
1 onion 1 leek
 $\frac{1}{4}$ cabbage 1 parsnip
2 carrots
 $\frac{1}{2}$ teaspoon ground black pepper
1 teaspoon ground coriander
1 teaspoon turmeric
 $\frac{1}{2}$ stick of cinnamon
1 teaspoon Droitwich salt
1 sprig of thyme
1 sprig of rosemary
1 sprig of sage

Simmer all together for 1 hour

Classes found out that Saxon vegetables would have been smaller and possibly differently coloured than the modern counterparts eg. white carrots (like the wild carrot plant root) or red, purple or black ones. (Orange carrots were developed in the Netherlands in the seventeenth century).

Food is cooked in a large iron vessel over an open fire which consumes large quantities of wood (and pollutes the air!). The Anglo-Saxons used hazel, hawthorn, oak and willow as fuel.

At this point it is worth considering the relative waste of heat energy of an open fire compared to a modern well insulated oven or quick hob and of heat energy loss from uncovered cooking pots.

This was avoided at Bishops Wood using slabs of wood from the building site as lids. The Saxon equivalents would have been burned or rotted away leaving no evidence of lids on cauldrons.

Saxon diet

Analysis of rubbish dumps (middens) and stomach contents indicate that Anglo-Saxons ate sheep, cattle, pigs, goats, deer, swans, poultry and many other birds as well as seals, whales and porpoises. Older *animals* and preserved meats needed long slow cooking well suited to a fire which would not readily have been extinguished. Meat and fish (herring, pike, eel, cod, salmon, trout, etc.) were smoked or salted. *Broths* of many kinds were common.

In addition to the *vegetables* in the recipe above, peas, beans, turnips, radishes as well as many members of the onion family (including garlic) were used in season. The pulses, fungi, herbs, and seaweed would be dried for later use. Pickling foods in honey, vinegar and whey and also marinating in oil and vinegar were known techniques. The addition of spices such as coriander is thought to have improved otherwise unpalatable meat!

Spices could be grown locally eg. coriander seed (highly valued). Others would have been imported and traded, possibly through Spain for example. The dried nature of the material allowed it to survive long periods, perhaps years, of travel so at various times cloves, ginger, pepper, cumin, cardamom, cinnamon and turmeric entered the Saxon cuisine.

Many *herbs* were grown locally, some of the extensive list being well known ones such as mints, parsley, cress, sage, bays, and coriander while others eg. wormwood, tansy, lovage etc. are less used now. Herbs, fruit and flowers all accompanied meat.

Salt of the earth - a local connection

Salt was obtained directly from inland or coastal sources of salt water. The water was evaporated by heating the water in large lead pans which would not corrode as easily as other, more reactive metals. Droitwich in Worcestershire was the chief salt town in England - its name, meaning "dirty place" deriving from the dirty smoke from the fires below the pans.

Many pans were owned by the king or the earl.

Salt was an important trading commodity

Grain seeds which survive well at the present day, include various kinds of wheats, rye and barley, some of which are found also in pots.

Cereal mixtures like porridge were eaten.

Bread was made from querned flour. Small stones from the quern were incorporated into the flour and have had a noticeable grinding effect on the Saxon teeth. Enriched breads and bun-size *cakes* could include apples and honey.

Fats and oils were used also to make *biscuits* such as shortbread which could be cooked in low temperature ovens after the bread had been baked or at the hearth.

Desserts included egg custards, sweet omelettes with flower and fruit, jellies and summer pudding using blackberries, raspberries and whortleberries.

Nuts and *cheeses* were available but not sugar, so honey was used for sweetening.

Drinks included wine (using local grapes as the weather was warmer then), ale and mead.

COOKING METHODS included roasting, grilling, toasting and the use of griddles and frying pans

SOME SAXON MEASURES

A good handful

An eggshell full

As much as you can pick up
with the tips of three fingers

Four spoonsful

As much as an olive

Two penny weights

As much as three beans
wheat
ear)

(a penny weighs 32 grains of
from the middle of the wheat

As much as you think

Three shillings' weight

FOOD AND COOKING continued

Food growing and nutrient cycles

Anglo-Saxons had well developed gardens and fields which would have been used on a rotation system where cattle provided fertiliser for crops grown on the same land in other years. In this way, the cycle of nutrients between plants and animals is completed.

Nowadays when artificial fertilisers are used instead of animal waste, problems arise because the cycle is broken. Both the unused animal waste and excess fertiliser are washed by rain into waterways, polluting them and ultimately causing death and decay of plants and animals. When animal waste is returned to the soil it tends to be held there and not cause pollution of waterways.

The production of the artificial fertilisers is a very energy intensive and polluting process. There has been some movement back towards organically grown food. Animal waste is now sometimes processed to produce biogas which can be used as a fuel and also liquid and solid fertilisers, all useful products.

Pesticide chemicals which can enter food chains are also not used in organically produced food. Humans are at the top of many food chains. Is it healthy to consume such chemicals?

Food from near and far. Some points for class discussion.

While some food was imported during Saxon times (see *spices*), the vast majority of it was produced locally. Children could be asked to think about the origins of food which they eat throughout the day and the fuel energy required to eat as we do.

They might consider also the exchange of similar items which takes place across the world eg. apples coming in from New Zealand when English apples are in season, spring water from Canada etc.

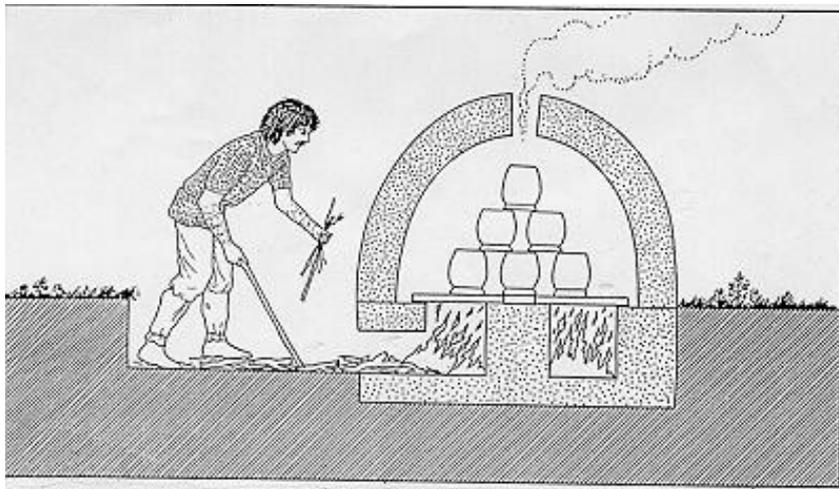
- Is fuel wasted and pollution produced?
- Is some of our imported food grown on land on which local people could grow theirs'?
- Do families buy locally or travel long distances to shop? Do they use farm shops?
- What modern preservation techniques are different from those used by the Anglo-Saxons?
- Are these techniques eg. freezing, more energy intensive? (Children could make a calendar of local foods in season.)
- Lastly (but not leastly!) do children feel they eat a healthy diet compared to the Anglo-Saxons?

CLAY AND POTTERY

At **Bishops Wood** children are able to see bowls which have been made in the Saxon fashion using two different techniques. Bones, feathers and shells are used to make patterns to mimic those which have been found on Saxon pottery.

Clay has been made into vessels and fired from about 3500 years BC. In Saxon times clay could have been obtained from many sites and has used for fire hearths, loom weights and for drop spindles as well as making many different kinds of cooking, eating and funeral vessels.

Black pots are the most common colour but also found quite commonly are brown, red, pink, grey and deep red-brown. Other materials were added to the clay to make it easier to work, to reduce loss of size when firing and to strengthen it. These include sand, straw, grass and other vegetable materials, shells, chalk, various stones and crushed Roman brick and broken pots.



Early pots were not very waterproof but over the seven centuries firing techniques became sophisticated. The wheel was introduced in the middle Saxon period. Pots could be made by families for their own use but were often the product of potters whose ware was frequently a particular colour and decorated with distinctive recognisable patterns sometimes made with stamps, perhaps using brooches or rings. However most pots (98% in one survey) were plain.

Decorations on funereal pots used in cremations were often rune-like (see **RUNES** sheet). The T rune representing the god Tiw or Tig (Tiwsdag = Tuesday) appeared as did the swastika which was the symbol of Thor (or Thunor) the god of thunder and a curved symbol of the dragon which, in mythology, watched over the dead. Holes and windows in pots allowed the dead person's spirit to escape. Cremation pots had often been previously used for cooking.

Cooking pots themselves give quite valuable clues about the diet of the time as food residues such as cabbages and turnips as well as barley have been found in them.

Trading

Pottery and cloth are known to have been exchanged for bronze, copper and silver from England, glass beads and containers from Germany and cowrie shells from the Indian Ocean.

Kitchenware thoughts. Some points for class discussion

The extraction of the clay would have polluted the water to a certain extent and firing (minimum 650 °C) used large quantities of wood and produced polluting gases. Fired pots break but do not biodegrade, hence the availability of archaeological evidence compared to that of wooden objects.

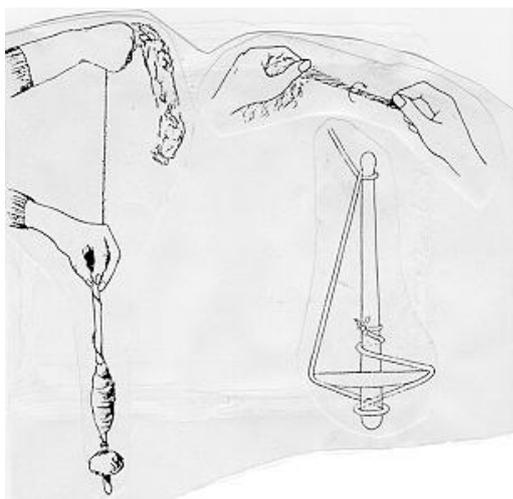
Children could think about the relative scales of production in Saxon and modern times, about the range of materials used to make cooking and eating vessels today and about the range of pollution produced during painting, glazing, enamelling, non-stick coating, soldering, melting, coating, electroplating What others can they think of?

SPINNING, WEAVING AND FABRICS

At the **Bishops Wood** site children have had the opportunity to spin wool using a simple drop spindle and to see weaving using the type of vertical loom and techniques which were available to the Anglo-Saxons.

The Anglo-Saxons used iron shears to obtain wool and untangled and cleaned it using combs, possibly made from bone but more likely of deer antler which is a tougher, more flexible material therefore useful for comb teeth. Comb making itself was a very skilled craft requiring the use of a small saw.

Spinning ‘Stere’ is a word addition which means ‘carried out by women’ so spinsters would have carried out the spinning.



The spindle stick was fitted with a circular weight called the spindle whorl, made of clay, metal, bone, or stone which kept the wool twisting into a strong thread or yarn.

Before weaving, the yarn could be dyed in basic colours of blue, red or yellow which can be combined to give purples, oranges and greens. Pupils can mix paints to see what colours and shades could be made.

Weaving

The equivalent of ‘spinster’ was ‘webster’ for a female weaver. In Saxon times, the weaving was done by women.

Can the class think of any other surnames ending in ‘ster’? What trades or crafts might these be named after? Remember that surnames were not fixed until after Saxon times, when many crafts such as weaving had been largely taken over by men, so ‘Weaver’ is a more common surname than ‘Webster’.

The upright wooden loom had large rings of clay or stone weighting the vertical warp threads. As with the spindles, the wood rots away but the weights remain on Saxon sites, sometimes in neat rows as they would have fallen if the loom had caught fire. These weights made weaving very heavy and tiring work (as pupils at Bishops Wood can discover!). Bone pin beaters were used to push the weft threads together.

Some small portable tablet weaving looms were used to make decorative braids for edging garments.

Clothing

Since much of this easily biodegrades, less is known about clothing styles. Some fabrics are preserved on the backs of brooches and buckles in graves and complete clothing is found on bodies in waterlogged conditions such as bogs. There are contemporary illustrations of later Saxon costumes from sources such as the Bayeux tapestry.

Early clothing was made from rectangular pieces (since cloth cut diagonally frays more easily) but later costume involved more complex shapes. These sections were held together with brooches or by sewing. Bone pins and needles have been found.

Natural and human made fabrics. Some points for class discussion

Modern clothing is very different from that of Anglo-Saxons. The fabrics still include natural ones like wool and linen with the addition of cotton and silk but a variety of oil-derived synthetic fabrics will be worn by the children eg. polyester, nylon, acrylic, latex and plastic. Which of these might be preserved in another 1500 years? Energy is needed to convert all of these fibres from the raw material to the finished garment.

The warmth of wool and silk and the coolness of cotton, linen and silk are not yet rivalled by synthetic materials which generally are also less breathable than natural fibres.

It is often assumed that natural clothing is better for the environment than synthetic but there are arguments both ways. Cotton is reputed to be the most pesticide intensive non-food crop in the world and many chemicals are used in sheep farming. The dyeing process for all fabrics can and does pollute waterways.

Natural materials could be produced on a renewable basis but in practice are not since the human population is growing and clothes consumption rising even faster. Children generally possess more clothes than are actually needed and probably more than their parents would have worn as children.

- Is any of their clothing home-made and how would this compare with previous generations?
- Can children knit?
- Do they give outgrown clothing to others or does it go in the bin and therefore on to landfill which replaces plant and animal habitats?
- Do we need to buy the latest fashion in clothes and discard clothes simply because they are no longer fashionable?



RUNES

These represent not just letters and writing but also secrecy, mystery and magic. Only a select few people would have been able to read and write them. In early years these would have been pagan priests and prophetesses. Before pens, ink or parchment, the bark of trees, soft stones and smooth wood were carved with runes.

Writing meant 'to cut' or 'to carve' before it was used in the modern sense of 'to write'. **Book** comes from 'boc' referring to beech (tree) tablets on which runes were inscribed.

Vertical and diagonal strokes are used in rune 'writing' but not horizontal or curved lines which are difficult to carve in grained wood. Viking and Saxon runes differ but the invention of both is attributed to the same god - **Odin** (Viking) / **Woden** (Saxon). Christians were keen to replace these magical symbols with Greek or Latin alphabet characters and this may have been achieved when pagan priests converted.

The Bishops Wood Rune Sheet can be used to write personal names and messages on bark or twigs. We have prepared rune sticks which contain the name of a plant along with three of its uses in Saxon times and these can be interpreted when the children have had practice in translation!

saxon runes

 F	 U	 TH	 O	 R	 C
 G	 W	 H	 N	 I	 P
 X	 S	 T	 B	 E	 M
 L	 ING	 D	 A	 Y	 AE

Paper mountains

Compare volume of material used in communication today compared with Saxon times. A very limited quantity of scrap wood and of stones contrasts with world wide usage of paper, most of which is from non-sustainably managed sources. Our paper consumption is increasing so rapidly that much habitat is being destroyed for increased tree planting instead of being able to replace one tree felled by another being planted. These problems could be greatly reduced by reduction of unnecessary paper use, reuse of existing paper and recycling.

Our use of paper. Some questions for class discussion.

- How much paper including photocopies are consumed in the classroom?
- How can we reduce paper consumption? Use both sides of the paper? Use scrap paper for rough work?
- Is paper recycled at school? At home?
- How can the cycle be completed? Does the school buy and use recycled paper products?
- Do the children's families buy any recycled paper products? Each pupil could count the numbers of Christmas and birthday cards received and work out the proportion which are of recycled card.
- Electronic devices should help us to reduce our consumption of paper but do they?
- Do these devices consume other resources?

Saxons Websites

Angelcynn

www.angelcynn.org.uk/

Suitable for KS2 teachers

A site operated by a Living History group. History, clothing, society, warfare, poetry, kings and photographs of re-enactments.

Anglo-Saxons

www.anglo-saxons.net

Suitable for KS2 teachers and pupils

A basic introduction, with information about kings, coins and literature.

BBC

www.bbc.co.uk/history/ancient/anglo_saxons/saxons_1a.shtml

Suitable for KS2 teachers and pupils

The site offers a recording of a speech given in Anglo-Saxon and a section on Malmesbury Abbey in Wiltshire.

Calendar

www.kami.demon.co.uk/gesithas/calendar/todayis.html

Suitable for KS2 teachers

First, obtain your longitude and latitude. This can often be found by looking up your nearest city in an atlas. (In case of difficulty, try:

www.bcca.org/misc/qiblih/latlong.html) Enter these details and the site will rapidly provide you with the day of the week and year in Anglo-Saxon.

Map

www.georgetown.edu/cball/oe/oe-map.html

Suitable for KS2 teachers and pupils

Visit this site for a very good, colourful map of Anglo-Saxon England.

Octavia

www.octavia.net/anglosaxon/anglosaxon.htm

Suitable for KS2 teachers and pupils

There is a choice of routes, each covering an aspect of Anglo-Saxon life: coinage, swords, slaves, the war kit, the war band, giving voice (language) and advice to bridegrooms.

Recipes

www.cs.cmu.edu/People/mjw/recipes/ethnic/historical/med-anglosaxon-coll.html

Suitable for KS2 teachers and pupils

A delightful site. The ingredients are readily available (although for "Small bird and bacon stew" you may need to get the children to bring in their budgies!), and it would be a great opportunity to compare with a modern diet.

Regia Anglorum

www.regia.org

Suitable for KS2 teachers and pupils

Click on "Wichamstow" for a diagram of a village and details of craftsmen plus photos of recreated buildings.