

How to be an archaeologist

Education Pack

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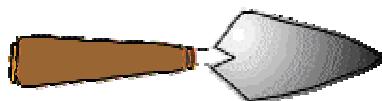
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How to be an archaeologist



Here at the Dyfed Archaeological Trust we are a great group of archaeologists, each interested in different aspects of archaeology. Later in this section we are going to interview some of the archaeologists so that you can learn a little of their work and who knows, maybe one day you might want to be an archaeologist too!



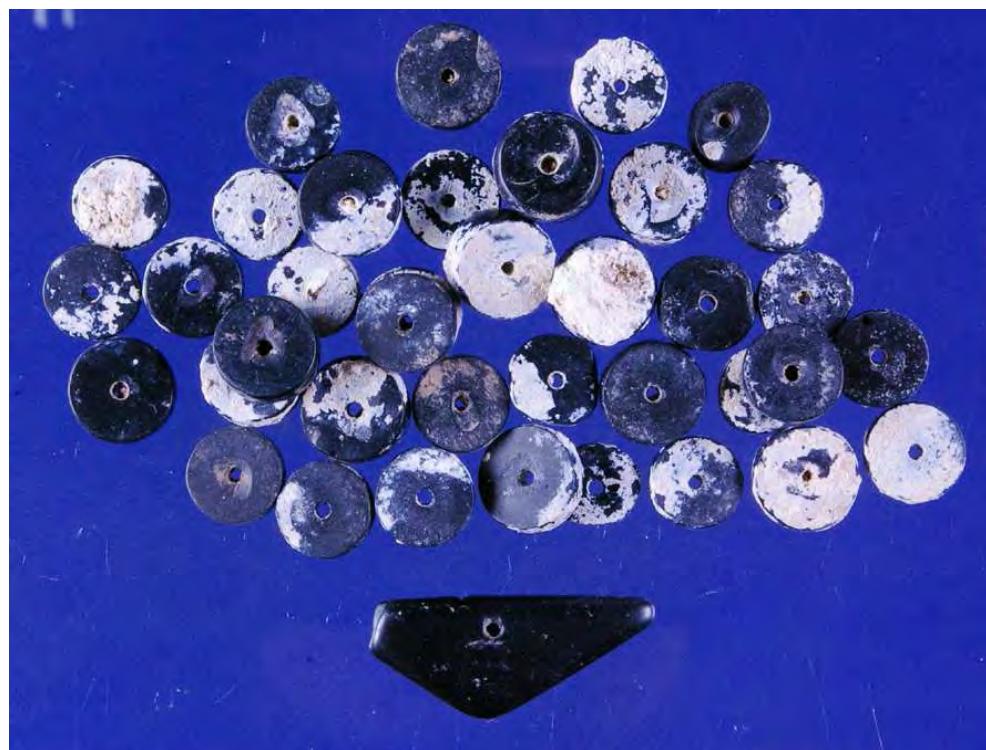
But before we start, we need to know exactly what an archaeologist is and what is the work that an archaeologist does.

Simply, archaeologists are people who look for clues to help explain how people lived in the past. They do this by looking for and examining the evidence that people left behind. Archaeology is the study of people and societies in the past through the examination of what they left behind, their material remains. By studying the remains of buildings, artefacts such as pottery, stone, wood and metal objects, and environmental evidence such as animal bones, seeds, pollen and insect/mollusc remains, archaeologists can begin to reconstruct how people lived in the past and the environment that influenced their behaviour. It is a discipline that crosses science and the arts. Many different archaeological techniques are used including excavation, aerial photography, surveying, fieldwalking, and laboratory analysis.

Clues can be found by looking at artefacts (things made by people) such as:-



A stone axe made by the people of the Neolithic (new stone age) – this one was found near Bethlehem...



...Jewellery made by Bronze Age people...



...or even an old coin from the reign of Queen Elizabeth.



Clues can also be marks left in the ground. These are called features and are vital clues to help archaeologists solve the mystery of life in a bygone age. Common examples of features are pits that have been dug by people to either store food or to dispose of rubbish. Other features can be the foundation of a house or the dark markings in the earth of rotted wood where once there was a post holding up an Iron Age Round house, like the ones at Castell Henllys. Archaeologists working on historic sites sometimes find evidence of where people went to the toilet and even some of their poo! Ych a fi!



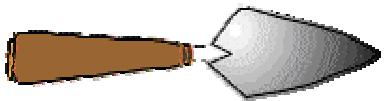
Archaeologists at work



These people are excavating a site in Pembrokeshire

The first task for the archaeologist is to identify a site. Some sites are already visible above the surface, such as buildings and monuments, others remain hidden for centuries beneath the soil, or can only be identified from the air using aerial photography. Many excavations begin by using less destructive techniques such as geophysics – which allows archaeologists to see what is present beneath the surface without excavating. If any archaeological features, such as ditches, are found using geophysics then test trenches can be opened up in order to find more information before progressing to larger open trenches.

Archaeologists dig methodically – that is very carefully, and in an organised way. They record all of the details of the soil, its colour, texture, contents and any changes as they dig. All of these details are crucial to understanding how the site has formed and been used by people in the past. Changes in soil colour can indicate what archaeologists call different ‘contexts’ – sometimes these represent different phases of use within the same site, or an activity (for example burning).



Sites that we have excavated during the Exploration Tywi! Project



Wernfawr deserted farmstead

We began our two-week investigation at Wernfawr, a deserted farmstead near Penybanc outside Llandeilo, during the spring. The site first came to our attention when excavations ahead of the construction of the gas pipeline in 2007, revealed a couple of corn drying ovens. These structures, which were once common near farmsteads, are now rarely seen. A small excavation in 2009 discovered evidence of the catastrophic fire that led to the abandonment of the farmhouse. What can we discover about life on a rural farmstead?



The photographs above show the farmstead immediately after the fire in 1911, and glass found during the excavations which has melted and distorted due to the high temperatures.

Above is an image of the 1911 census return for Wernfawr, the census returns helped us to find out who was living at the farmhouse and what jobs they did. According to the 1911 census records John Thomas and his wife lived at the farmstead along with a groom and a young woman engaged in dairy work. Given that only a single building is still standing, it would appear to be divided between the main domestic farmhouse, along with an attached dairy and stable. This farm building was destroyed by fire in the same year; presumably John Thomas and his wife were living there at the time.



Above and below are the excavations at Wernfawr. Archaeologists from Dyfed Archaeological Trust and volunteers helped to uncover the site's history through careful excavation and

recording. After the excavations had finished, finds such as pottery and glassware were looked at in more detail by specialists to see what else they might tell us about life at Wernfawr.



Dan yr Allt 16th century mansion house

The site of a demolished Elizabethan mansion located in the heart of the Tywi valley was investigated. The parkland surrounding the mansion is still very visible, though nothing of the mansion itself survives above ground level.

A geophysical survey of the area proved inconclusive due to demolition rubble and the construction of a farm track. However, the site of a possible ditched enclosure was picked up and excavation suggested it was earlier than the mansion. Evidence for the former house unfortunately proved elusive, with only the edge of a possible paved surface and a small spread of building rubble revealed in one trench. Upstanding walls forming three rooms were recorded on the edge of the site. They appeared to be part of the 19th century farmhouse built after the mansion was destroyed. An old piece of text tells us of the fate of the mansion.



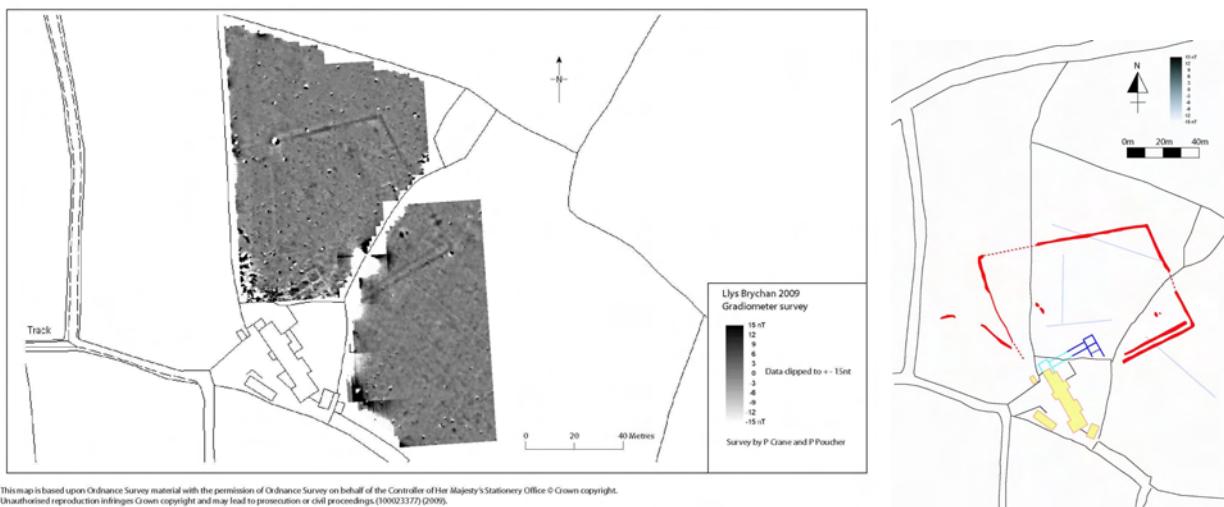
"In the Winter of 1840-1841 the whole of the ancient mansion house of Danyallt was razed to the ground by John William Lloyd Esquire of that place. O domus antiqua! Heu quam dispari dominare domino! " Revd H.R.Lloyd (owner of Dan yr Allt estate in 1st half of 19th century, quoting from Cicero, *De Officiis*, I, 39, 139 'O ancient house! Alas by how different a master thou art (now) ruled')



Old Danyallt, from the original drawing by HR Lloyd (1839)

Llys Brychan Roman Villa

Brychan was the king of Brycheiniog with land stretching down to the Tywi. Excavations in the early 1960s uncovered a villa located above the floodplain of the Tywi some two miles south of Llangadog; this would have been a large and imposing Roman building in West Wales. A geophysical survey in 2009 not only showed the plan of the villa but also revealed a series of ditches forming an enclosure around it. Three trenches were dug to find out more information about these features. The main enclosure ditch was found to be of Roman date, V-shaped in profile and three sherds of Roman pottery came out of its fill. Numerous stones in the upper fill of the ditch may represent a collapsed bank. A possible courtyard and indications of industrial activity (showing up as a pit with burnt material) were uncovered within the enclosure.

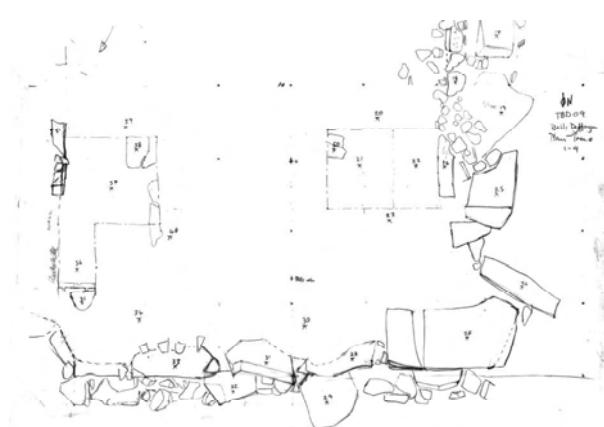




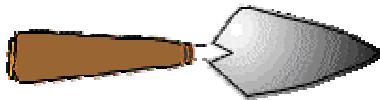
Dyffryn Ceidrych

Both the site of a medieval longhouse near Carn Goch, on the edge of the Black Mountain, and a nearby chambered tomb from the Neolithic (New Stone Age), were investigated.

The longhouse had stone built walls, with three rooms built on a level area at the bottom of a hill. Pottery found in trenches was late-medieval. Most of the stone for the buildings seems to have been robbed from the site and used to build field walls!



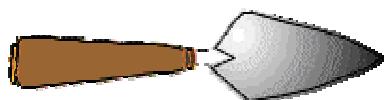
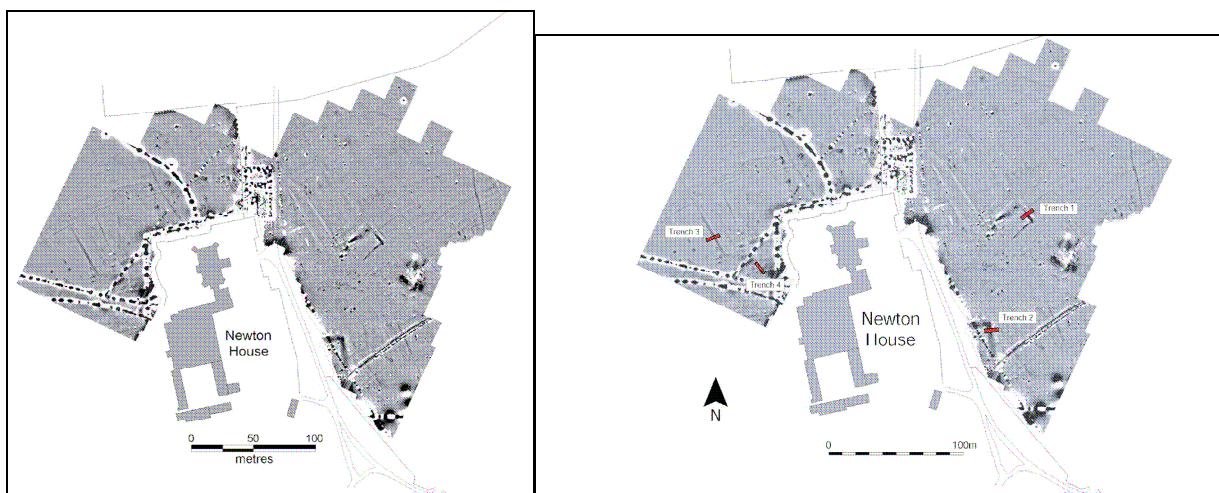
When the chambered tomb was cleared of long grass and nettles you could see a rectangular chamber, made from large narrow stones, built on a small mound of stone and turf. Nearby parallel lines of stones were recorded also.



How did we find these sites?



Sometimes sites are found because people have found something interesting in that area such as a piece of pot or old coin. Wernfawr was discovered during excavations ahead of the gas pipeline in 2007, when two corn dryers were uncovered providing crucial clues. Dan yr Allt was known as the site of a mansion through historic maps and old drawings, giving us an idea of its whereabouts. However, it was only through geophysical survey and trial excavation that the site was located again. Archaeologists use scientific instruments such as radar and sonar to look for evidence underground. These instruments are called magnetometers and resistivity meters, and the images they produce help us to decide where exactly to begin our excavations. In the pictures below you will see how we spotted the archaeological features hidden underground using geophysics, and then where we decided to set up our trenches....



What about the archaeologists who work at or with Dyfed Archaeological Trust?



Marion



Most of what we have at the Dyfed Archaeological Trust is kept in the HER, which is the Historic Environment Record. This site is constantly being kept up to date by Marion. If you want to research something in your area, all you have to do is log on to <http://www.archwilio.org.uk/>

Alice



Alice is an archaeologist who likes old buildings, but she also likes to help people get involved in doing their own research or have a go at recording sites they might find themselves.

Charles

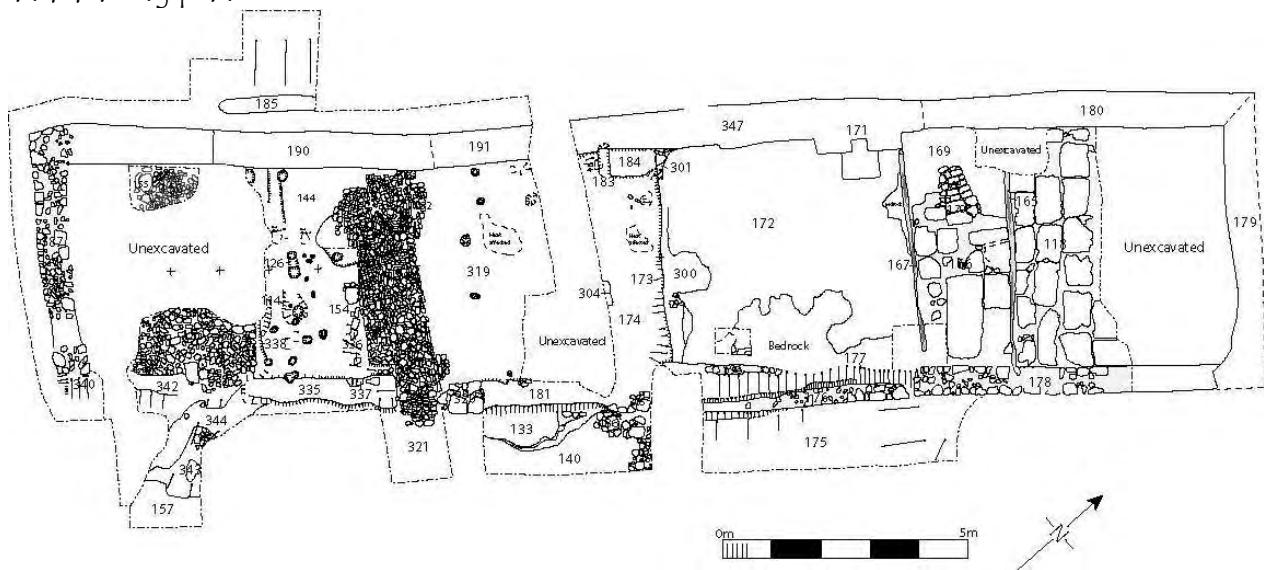


Charles looks after any archaeology which may be uncovered by people who want to build things like houses, supermarkets or roads.

Hubert



Hubert is an archaeologist who also works as a surveyor recording monuments by measuring and drawing plans.



Louise



Louise is an archaeologist who knows practically all you need to know about Stone Age flints and tools.



Will



Will is an archaeologist who researches and looks out for old and ancient buildings as well as farms and woodland



Mike



As well as being an archaeologist working in the field and heritage management, Mike is also excellent at taking photographs....



Mark Deane at Celtic Diving at Fishguard



Some archaeologists work underwater in lakes, rivers and sea beds.



Possible Napoleonic shipwreck from 1797 invasion attempt. Website Celtic Diving

Phil



philipmartin.info

Phil is an archaeologist who works with geophysics by using machines called magnetometers to make plans of things under the soil without having to dig.



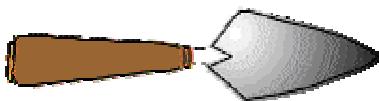
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Ken



philipmartin.info

Some archaeologists like Ken, even go up in small planes to see if they can sight marks or patterns in fields that can't be seen when walking on the ground.



Exploration Tywi Archaeologists mainly work in Llandeilo at:

Dyfed Archaeological Trust
The Shire Hall
Carmarthen Street
Llandeilo
Carmarthenshire
SA19 6AF

Email: info@dyfedarchaeology.org.uk

Web: www.dyfedarchaeology.org.uk

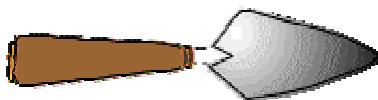
Tel: 01558 823121

How can we be young archaeologists in our school?



As you have read, being an archaeologist involves using a lot of skills. By creating an archaeological display in school, we can have a go at being all types of archaeologists. We need to learn how to dig, conserve, catalogue and research.

We also need to work out the best way to display the material that we've found, also any photographs that we have taken or any research that we've done.



So where do we get the artefacts to display?

Back garden of your home and family or School garden.

Here we can find "modern" artefacts that can build up a picture of life at present.

Field walking

It is vitally important to have the permission of both landowner and farmer, and if possible ask an expert along to help.

The farmer will advise when would be the best time to conduct the walk. Ideally it would be after ploughing so that the soil is reasonably well broken up. Unfortunately the farmer won't be able to give an exact date because the weather here in the Tywi Valley is so unpredictable!

It's also important not to divulge the position of the field until the last minute as word gets around fast. This is because there are some people who would plunder the site if they thought that there was something valuable to be found (nighthawks)

The area to be walked should be broken up into 10 x 10 metre squares. And each corner of the squares marked with a garden cane or stake with a plastic bag, flag or ribbon tied to its top. In the middle of each square, weighed down with a stone, should be a large plastic bag labelled with a letter of the alphabet.

The squares are then drawn and labelled on a large-scale field map and marked correspondingly. It is advisable to mark out the field before the children arrive!

Children and staff can make their way across their allocated square looking at and rifling through the soil for artefacts (putting anything interesting into their own small plastic bag). In order to inspire the children they could be told that they are historical detectives looking for evidence.

When the square has been covered, the children's individual bags are emptied into the labelled bag in the middle of their square and tied up and left until the end of the session. The group can then move on to another square if time allows.

When the walk is complete the large bags are collected together and the field left tidy and litter free.

Any interesting finds should be reported to the landowner and photographed. The Finds Liason Officer at the museum in Abergwili, Carmarthen and Dyfed Archaeological Trust should also be informed, as they can be immensely helpful with identification.

A **final report** with diagrams, detailing the finds and where they were found, and photographs of the day are also very useful and an enjoyable exercise for the children to pursue.

Visits to the County Museum at Abergwili to learn how artefacts are stored and labelled would be valuable. Also any background information needed to understand the site can be found at the Archives Service in Carmarthen at the Dyfed Archaeological Trust in Llandeilo or even the local Library.



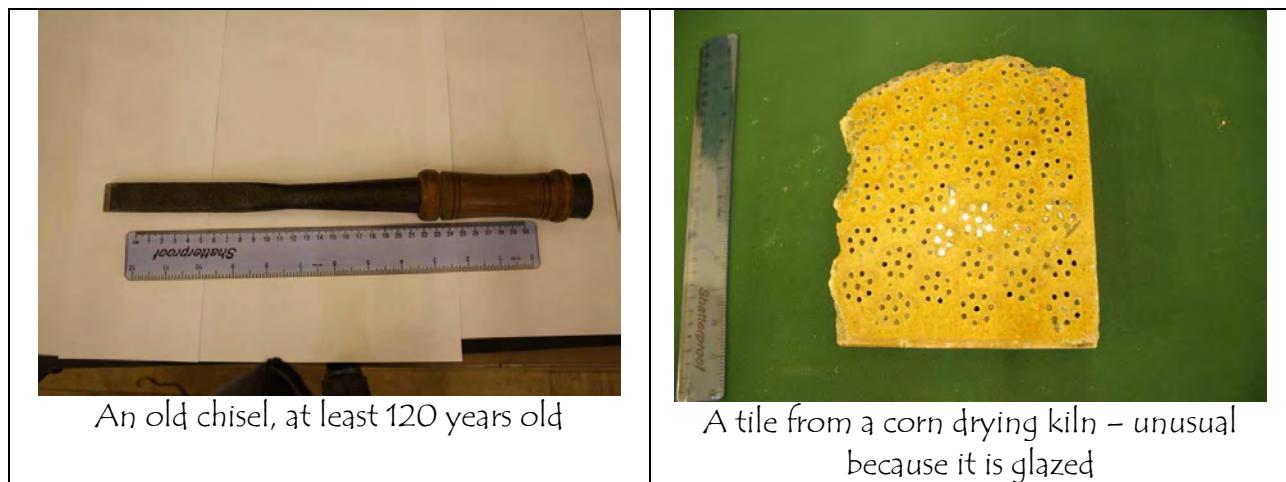
Maybe join the Young Archaeologist Club

Here you can pick up tips from other young archaeologists and feel part of a club.

There are also good information sheets and ideas here too. www.britarch.ac.uk/yac/

Here are some artefacts and pictures brought in by people in the Exploration Tywi! area.

	
<u>Do you have an idea what this is?</u>	A tool for holding wood steady for carving
	
A large old bottle	A carved stone with a figure
	
<u>Do you know what this is?</u>	An old tool for dehorning cows perhaps?



Creating a display

This helps children to understand the past in a physical, "hands on" way. They can learn how to catalogue and index finds and realise that the display must be labelled and presented in an artistic and interesting way. They also learn how to care for the objects and make informed decisions. Brochures or information sheets can be created and perhaps an open evening in order to show the parents the extent of their archaeological discovery.

Always remember that health and safety warnings must be stressed when picking up broken pieces of pot or glass!

Developing an archaeological project in your school can be a valuable cross curricular exercise and linked to the National Curriculum on many levels.

Language skills

There are opportunities for discussion, learning new vocabulary, listening to talks, research and creative writing and interpretation. It also develops their skills of analysis of evidence and argument. Creating a library also aids in helping reading skills and analysis.

History

Placing the item in the context of local historical events. Creating a timeline for the items and placing them within an historical context. Looking at the social life of the people. Develop thinking skills through historical enquiry and coming to conclusions. They can learn to use sources of information critically, to detect bias and prejudice, and to construct an argument or interpretation of events based on evidence.

Mathematics

Looking at timelines to become more chronologically aware. Mathematically working out the age of an artefact. Creating a reference system. Studying census returns and statistics. Looking at monetary systems by studying old coins.

Design, Technology and IT skills

There are opportunities for evaluating different kinds of materials and their uses. Simple conservation techniques. Using the computer to compile databases and designing graphics for displays. Architecture, creating arches with flat stones. Use of the internet.

Art

Items such as pottery and jewellery can be recreated in the classroom. Different historical styles can be studied by looking at old buttons and clips. Design of clothing.

Geography

The study of maps and map making as well as the world picture can be studied through looking at trade routes. eg Roman Samianware pottery came from Gaul (France.) Surveying. Old maps can be sourced from the Dyfed Archaeological Trust or from the Carmarthen Archives Service or on-line at <http://www.old-maps.co.uk>

Science

The environment can be studied through looking at different kinds of soil/rocks and flora and fauna in the area. Ask questions such as, when did the sycamore arrive on our shores? When did chickens arrive? Study of animal skeletal remains. Industry in the area, road building, geophysics

Personal and Social Skills

There are opportunities for group work, structuring and taking responsibility for a project. Creating an opportunity for children to move from concrete to abstract; simple to complex; personal to the 'big picture'; familiar to unfamiliar; and supported to independent and interdependent. It also contributes to personal and social education by developing skills of enquiry and critical thinking; their understanding of different views and interpretations of people and events; and of the way in which people have affected their environment in the past. It gives learners an historical context in which to set their lives.

Curriculum Cymraeg

Here is an opportunity for children to make local and Welsh history a focus of the study and helping to learn and understand the factors that have shaped Wales and other countries today.

Careers and the world of work

It provides an awareness of careers and the world of work in their understanding of the factors that have shaped the world of work in the past; some of the important economic, social and industrial changes which have occurred; the scale of the changes across different periods and

within the same period; some major economic, social and technological changes that happened over the centuries.

