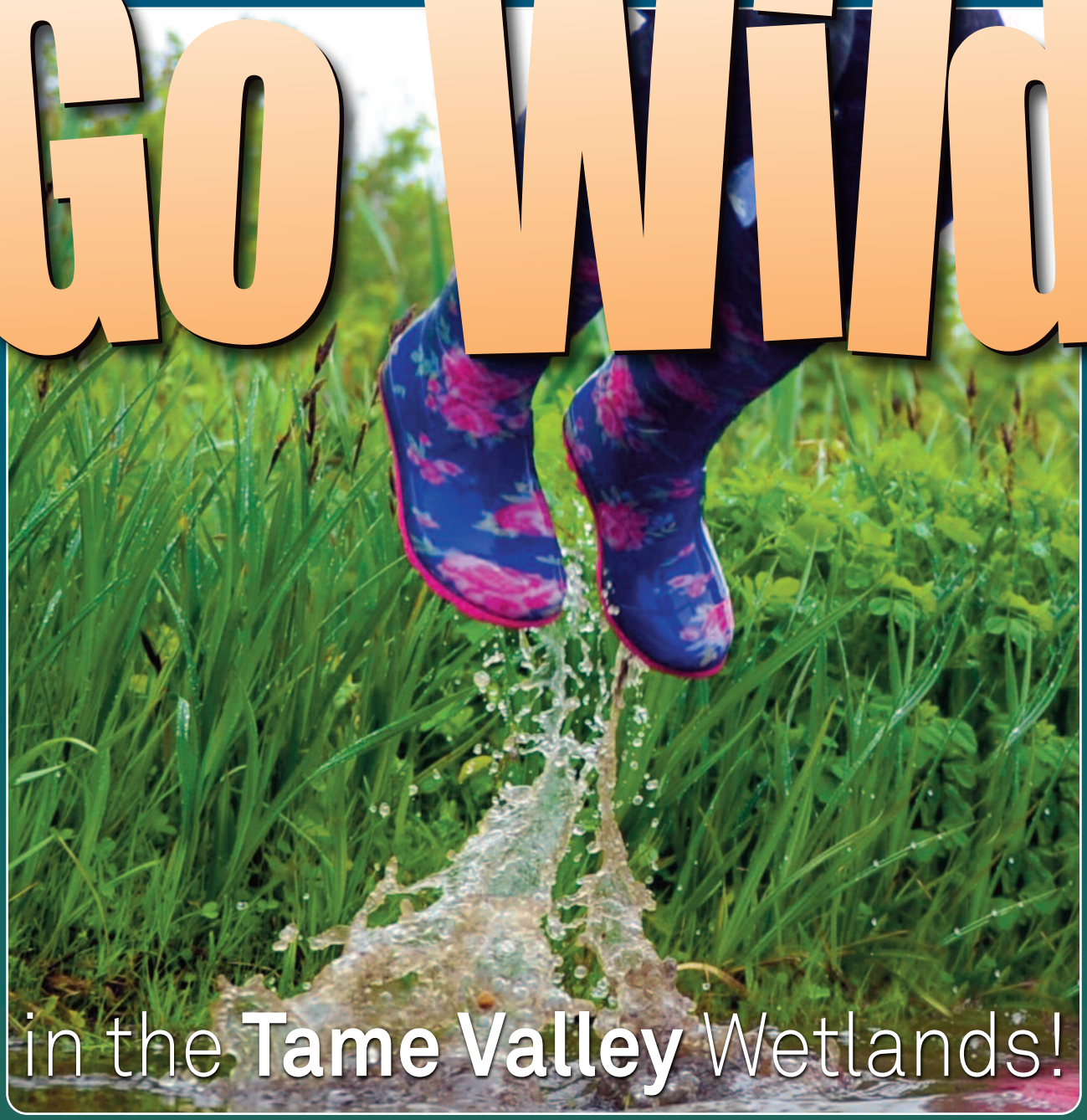
Tame Valley Wetlands

Go Wild



in the Tame Valley Wetlands!

LOTTERY FUNDED

heritage lottery fund

An Educational Activity & Resource Pack

Written and illustrated by

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for TVWLPS

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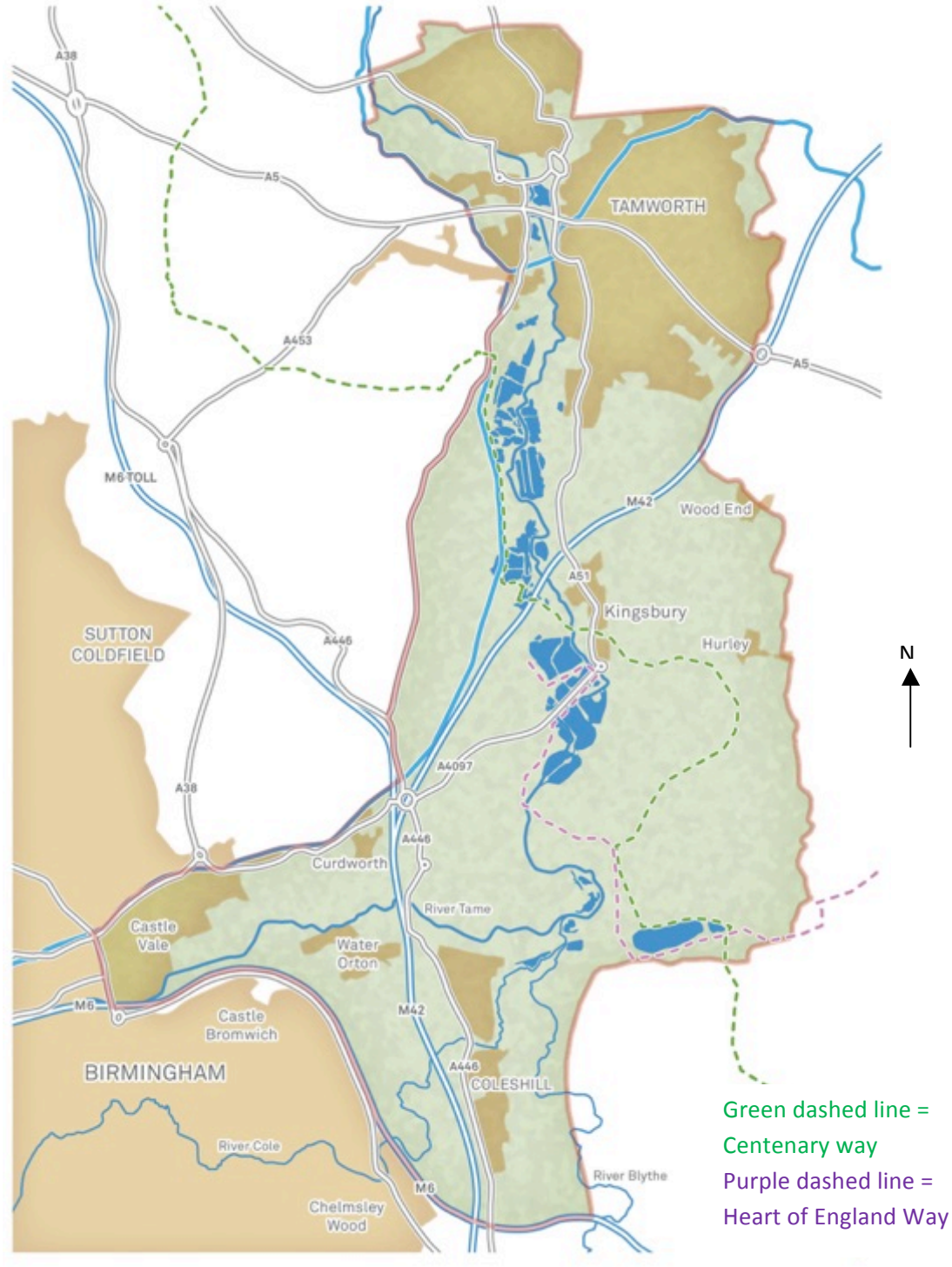
The Rivers Tame and Anker at Tamworth

Notes for Teachers & Group Leaders

About the Tame Valley Wetlands Landscape Partnership Scheme

The Tame Valley Wetlands Landscape Partnership Scheme (TVWLPS) is a large, landscape-scale scheme with local people, waterways, heritage and wildlife at its heart. Thanks to generous funding from the National Lottery through the Heritage Lottery Fund (HLF) and organisations in the Partnership, the TVWLPS will be delivered between 2014 and 2018.



The scheme covers an area of 104 km² (40 square miles, 10,350 hectares) in the Tame Valley Wetlands, following the River Tame between Birmingham and Tamworth, in North Warwickshire and south-east Staffordshire (outlined in pink on the map above).

Over the past century the rivers of the Midlands have really been bashed about. They've been diverted, blocked, and sometimes covered over completely.

In the more urban parts of the Midlands they've suffered from "canalisation". Rivers are straightened and their banks turned from gentle slopes into sharp, straight-sided drops. Combine this all this with pollution from heavy industry and intensive agriculture and it's been bad news for rivers as wildlife habitat. The largest scheme of its type in the Midlands aims to turn a much abused river back into something a lot more natural. The River Tame Valley stretches from Birmingham to Tamworth, from north Warwickshire to south east Staffordshire. This whole area is getting a multimillion pound wildlife makeover. Stretches of the River Tame itself will be returned to a much more natural state. There will be new wetlands and improved visitor access. The canals which cross this landscape will also be given attention, including restoration of buildings in what is an area with a proud industrial heritage. The hope is this will turn what is a hidden, perhaps forgotten, river valley back into something special for wildlife and for people.

The River Tame flows past nearly 2 million people on its journey from source to its confluence with the River Trent. Within the TVWLPS area, the River Tame and its tributaries are a familiar backdrop for at least nine distinct settlements. The River Tame has been a vital asset for the local communities along its course over many centuries and these populations have grown up using and relying on the water from the Tame. Birmingham's drinking water is now supplied under gravity from the reservoirs in the Elan Valley in Mid Wales, eventually making its way (as urban runoff and sewage discharge from Minworth Sewage Treatment Works) into the River Tame, flowing north into the River Trent, and eventually out into the North Sea via the Humber Estuary. The River Tame and all of its tributaries within the TVWLPS area are now classed as 'failing water bodies' under the Water Framework Directive, with the majority classed as having poor water quality.

Today, the River Tame and its floodplain is still vital for people – for agriculture, for flood water storage, for purification of the air and water and for our wellbeing, as a place to relax, learn and be inspired. The TVWLPS has great potential to educate both local people within the scheme area and the people of Birmingham about water usage and urban pollution…*the river begins at your front door!*

Our Vision is to create a wetland landscape, rich in wildlife and accessible to all. This will be achieved by taking a landscape-scale approach to restoring, conserving and reconnecting the physical and cultural landscape of the Tame Valley Wetlands. By re-engaging local

communities with the landscape and its rich heritage, a sense of ownership, understanding and pride will be nurtured to ensure a lasting legacy of restoration and conservation.

Our four principal aims are to:

1. **Conserve, enhance and restore built and natural heritage features** in order to improve the fragmented and degraded landscape of the Tame Valley. Emphasis will be given to linear features such as the River Tame and its floodplain, the canal corridor and historic hedgerows.
2. **Reconnect the local community with the Tame Valley landscape and its heritage** by engaging and involving people of all ages, backgrounds and abilities with their local green spaces, sites of heritage interest and the conservation and restoration of these places. Emphasis will be given to engaging hard-to-reach groups, community-led initiatives and delivering events and activities.
3. **Improve access and learning for local people** – both physical access on and between sites and intellectual access on and off site through a range of resources. This includes development of the 'Tame Way', themed trails, a 'Gateway to the Tame Valley' interpretation centre and website and this educational resource pack.
4. **Provide training opportunities for local people** by offering taster sessions, short courses, award schemes and certificates in a range of heritage and conservation topics, in order to increase the skill and knowledge levels within the local population and provide a lasting legacy.

These are our planned 10 key outputs:

1. 2 historic Grade II listed structures restored.
2. 50 hectares of wetland habitat created / enhanced.
3. 5 Local Biodiversity Action Plan (LBAP) / endangered species protected.
4. 1,000 metres of historic hedgerows restored or re-planted.
5. 1,000 metres of river or canal bank re-naturalised.
6. 3 local groups established / supported, plus a series of working groups set up.
7. 1,000 school children, 500 members of the public and 200 young people engaged and inspired.
8. Promotion of the Tame Way long distance footpath and creation of 5 new circular walks, a phone app and a new interactive website.
9. Delivery of 150 taster days and events and activities where 1,000 people will learn about their local heritage.
10. 65 local people formally trained, gaining accreditation through OCN and City & Guilds qualifications (plus one, two-year apprentice position).

It is a huge project and there's a big list of all those involved.

Board Members *(in alphabetical order)*:

- Canal & River Trust
- Environment Agency
- North Warwickshire Borough Council
- RSPB
- Staffordshire Wildlife Trust
- Warwickshire County Council
- Warwickshire Wildlife Trust (lead partner)

Wider Partnership Members *(in alphabetical order)*:

- Birmingham & the Black Country Wildlife Trust
- Curdworth Parish Council
- Heart of England Community Foundation
- Lea Marston Parish Council
- Natural England
- North Warwickshire Volunteer Centre
- Severn Trent Water
- Staffordshire County Council
- Tamworth Borough Council
- West Midland Bird Club
- Woodland Trust

Wetland Habitat in the Tame Valley © 2013 John Ball

Introduction to this Educational Resource Pack

"It is important for children to understand their role in protecting and developing the environment for their future and that of future generations. In fact children are passionate about this aspect and relish the opportunity to engage in outdoor learning activities and activities that are real and relevant. We are keen to support the scheme and be involved in the activities that are being proposed"
(Karen Hanson, Head teacher at Kingsbury Primary School)

This educational resource pack aims to inspire schools and other groups to engage with and discover the wildlife and landscapes of the Tame Valley Wetlands and to enable their students to recognise the importance of The River Tame throughout history. It contains practical advice for teachers, background information about the natural and built heritage of the area, classroom-based activities, places to visit in the Tame Valley Wetlands, outdoor activity notes and ideas for follow-up sessions.

The information pages can be used purely as background reading for teachers or as guided or topic reading for pupils. Older students could use them as research material for individual study. The Glossary will be a useful tool for spelling, vocabulary development, writing and comprehension activities.

The practical activities in this pack have been written in a flexible format which allows teachers or other group leaders to adapt them to their own needs. They are aimed at children aged between 7 and 11 years, although many will also be enjoyed by younger children or older students, according to their curriculum needs.

≈ This symbol indicates supporting ideas for each activity. These can be suggested visits, follow-up ideas or other cross-curricular projects to consolidate learning.

The Photo Gallery can be used in a variety of ways - as display material, discussion points, inspiration for writing or artwork, to name but a few.

The Tame Valley Wetlands Education Resource Pack and the National Curriculum

Activity Number	English/Literacy	Mathematics/ Numeracy	Science	Computing	History	Geography	Design and Technology	Art and Design	Music	Physical Education
1	≈	≈			≈	≈	≈			
2	≈	≈	≈			≈	≈			
3	≈	≈		≈	≈	≈				
4	≈					≈				
5	≈	≈	≈	≈	≈	≈		≈		
6	≈		≈							
7	≈	≈	≈					≈		≈
8	≈	≈	≈	≈						
9	≈ KS1		≈ KS1			≈ KS1				
10	≈ KS1		≈ KS1			≈ KS1				
11		≈	≈							
12	≈		≈							
13	≈									
14	≈			≈	≈	≈		≈	≈	

This chart shows how each activity supports parts of the Primary National Curriculum for KS 2 (unless otherwise stated).

Health and Safety During Visits to Sites in the Tame Valley Wetlands

Common sense should be used in assessing and managing the risks of any activity. Health and safety procedures should always be proportionate to the risks of an activity.

Pre-visit organisation

Rivers, lakes, canals and historic sites are potentially dangerous places for visitors, especially children, and it's essential that visiting teachers make a pre-visit to the site so they can adequately asses any hazards. The visit must be carried out according to the guidelines issued by the Local Authority, organised with the school's Headteacher and the school's Educational Visits Coordinator (if there is one) and a risk assessment completed. A first aider should accompany any visiting group. Visits may be subject to cancellation due to adverse weather conditions (such as flooding or gales) and this will need to be taken into consideration.

For further information or to make a booking visit the relevant website and contact the rangers, education officers or owners of the site (see pages 26-30 for details of places to visit).

Briefing helpers and pupils

All adults present during the visit need to be made aware of the risk assessment and what their role is during the day. Close supervision of children is essential at all times and group sizes should reflect the age and abilities of the visiting children.

Learning about risks and how to deal with them is a vital life-skill for children. Involve your group with planning a visit, ask them what they think will be the hazards of such a visit and how they will need to behave. This will make the 'rules' for the visit far more meaningful for them. Make sure they know what the learning experiences will be and what to expect. This pack contains pre-visit and follow-up activities which will help to consolidate learning for the children.

Lea Ford Cottage in the grounds of Hams Hall Environmental Studies Centre, which is now the Tame Valley Wetlands office.

Generic Risk Assessment for school/group visits in the Tame Valley Area

Activity	Risks identified	Impact	Controls in place and actions required by schools/groups	Residual Risk
Travel to the site	Children safely monitored by roads and crossings.	High	Visit organised by school EVA Co-ordinator. Ensure high vis waistcoats worn if appropriate. Ensure staff/child ratio is as required by school/group. Make sure proper footpaths and crossing places are accessed.	Low
	Vehicle journey by an approved company/driver. RTA could prove fatal in worst case.	High	Ensure safe transport is provided with seat belts. Ensure correct staff/child ratio on transport. Identify safe parking place on pre-visit.	Low
Invertebrate sampling at river/stream pond or lake. Working by water or in other public areas.	Trips, slips and falls. Drowning.	High	Ensure safe area is used for sampling and pre-visit check has taken place. Consider weather conditions and change activity if necessary. All instructions from Rangers/organisers must be adhered to. Ensure all invertebrate identification takes place away from the water and in small groups with a school staff member/volunteer with each group. Cuts and grazes covered before sampling.	Low
	Zoonosis: (diseases passed from animals to humans, such as Weils Disease) Microbacteria infection from contact with animals or their faeces/urine. Some infections cause serious illness.	High	Ensure children are aware of the importance of avoiding faeces, keeping hands out of mouth, eyes and noses while working. Hand washing, using clean water, gel or wipes immediately after activity. No eating until hands cleaned under running water with soap. Do not drink water from river/stream. Any cuts or grazes washed with clean water and covered immediately.	Low
Walking by rivers, streams, ponds, lakes and uneven grassy areas	Running on banksides, wet grass, mud. Slips, trips and falls	Med/High	Ensure all children are aware of reasons for not running and are wearing appropriate outdoor clothing and footwear. Ensure some spare clothing is available. Carry a First Aid kit and identify member of staff who is First Aid trained.	Low

Note to teachers/group leaders

This risk assessment is included as an illustration only. A risk assessment should be completed for all school visits according to Local Authority guidelines. Other groups should discuss safety issues when booking a visit and carry out risk assessments as required.

Information Pages

The Birmingham and Fazeley Canal at Bodymoor Heath

20 things you may not know about the River Tame

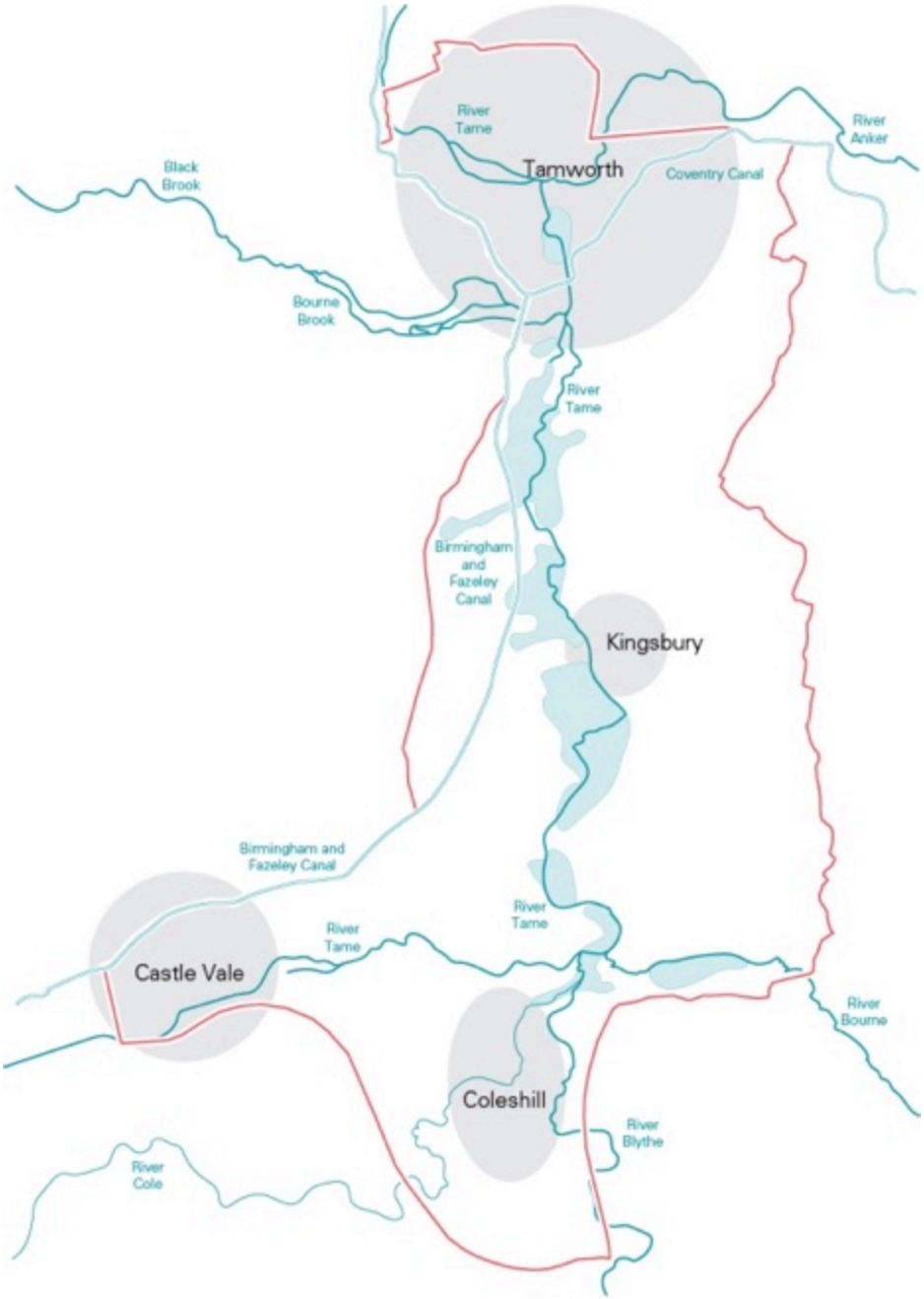
1. The name of the River Tame is thought to be derived from an ancient word meaning 'dark' or 'slowly flowing'.
2. The whole of the River Tame is now classed as 'non-navigable'. That means it is not wide or deep enough to allow ships to use it. However, in the past it would have been an important transport and trading route for smaller boats.
3. The Tomsaete ('dwellers of the Tame valley') were an Anglo-Saxon tribe who lived in the Tame Valley from around 500 AD during the time of the Kingdom of Mercia. They originated in what is now modern-day Germany and travelled across the North Sea, up the Humber estuary and then into the valleys of the Trent and Tame.
4. The River Tame is 95 km (about 59 miles) long, from its source near Oldbury to where it joins the River Trent at Alrewas. Victorian maps show the source even further west towards Wolverhampton's Stow Heath colliery (now East Park).
5. The River has 13 main tributaries: The River Anker, Bourne Brook, The River Bourne, The River Blythe, Crane Brook, Norton Brook, Footherley Brook, Little Hay Brook, Plants Brook, Hockley Brook, River Rea, the Willenhall or Wolverhampton Arm and the Oldbury Arm. Other smaller rivers and streams also feed into these tributaries.
6. Including all its tributaries, the length of the whole river system is about 285 km (about 177 miles).
7. The catchment area of the Tame is about 1500 square kilometres (around 579 square miles)
8. The River Tame flows past nearly 2 million people on its journey from its source to the confluence (where it meets) with the River Trent.
9. Three major sewage works outflow into the Lower Tame - Coleshill, Tamworth and Minworth Sewage Treatment Works, which is the largest in Europe.
10. Where the rivers Tame and Trent meet, the Tame is bigger than the Trent, which would appear to be one of its tributaries. However, as the Trent is a longer river than the Tame, the combined river is called the Trent.
11. Water from the River Tame travels down the Rivers Trent and Humber ending up in the North Sea.

12. The packhorse bridge at Water Orton was built in 1520 with money given by Bishop John Vesey (Bishop of Exeter) who was born in Sutton Coldfield.
13. Before the industrial revolution, the River Tame meandered slowly through broad landscapes of wildlife-rich marshes, reeds and pastures. The area was known for its breeding wildfowl and large over-wintering populations of migrating birds and waders.
14. The artist Joseph Mallord William Turner painted a watercolour of Tamworth Castle from across the River Tame and sketched Tamworth and the River Tame Bridges from near Fazeley in the 1830s.
15. It's said that trout caught in the River Tame at Hams Hall was served at Queen Victoria's Coronation dinner in 1838, where there were 100 special guests.
16. Around 42% of the Tame flows through built-up areas, which makes it the most urbanised river basin in the United Kingdom. The course of the river has been changed over the centuries, its meandering course was straightened and where it flows through built-up areas it's mainly channelled through culverts or canals.
17. During the centuries after the industrial revolution, the Tame became one of Britain's dirtiest rivers. Coal, iron and steel industries together with raw sewage heavily polluted the river and by 1945 nothing could live in it.
18. The Tame is much cleaner again now, because of the closures of these traditional industries, new environmental laws and the series of purification lakes at Lea Marston, which are the only ones of this type in the UK.
19. In the 20th century, there were three power stations on the River Tame at Hams Hall, together producing 1000 megawatts (or 1 Gigawatt) at the height of production, enough energy to power over 600,000 homes. The last one was demolished in 1993.
20. Gravel was extracted along much of the River Tame between the 1960s and 1990s. The lakes at Kingsbury Water Park and the RSPB reserve at Middleton Lakes were created from the holes left after the gravel was dug out.

The Tame Valley Wetlands Landscape Partnership Scheme area

The Tame Valley Wetlands Scheme Area encompasses the River Tame, its floodplain and several important tributaries, plus the surrounding landscape and canal network, including the Birmingham & Fazeley and Coventry Canals. The landscape area covers 104 km² between Birmingham and Tamworth, in North Warwickshire and south-east Staffordshire (10,350 hectares).

Approximately 10% of this landscape area is classed as wetland habitat. This includes habitat such as reedbed, wet grassland, wet woodland and open water.



Tame Valley Wetlands - A Timeline

Year	Events in the Tame Valley Wetlands Area
Around 10,000 years ago	At the end of the last Ice Age huge glaciers melted and the Tame river valley was gouged out by meltwater floods
Around 5,000 years ago	There is evidence of a settlement on raised land (locally known as 'The Pimple') close to a natural ford across the River Tame at Castle Bromwich along the route of an ancient drover's road (later called 'Welsh Road')
Around 2,800 years ago	Iron age settlement at Grimstock Hill, Coleshill with a circular wooden temple
43	Roman invasion of Britain
By 180	Most of the Roman road network in Britain was complete, including Watling Street (now the A5) from Kent to North Wales
Around 410	Roman troops finally withdrew from Britain
Mid 5th to early 7th centuries	Germanic peoples (later called Anglo-Saxons) invaded and settled in Britain. They established kingdoms across England and lowland Scotland
650 - 680	Approximate date of the burial of the 'Staffordshire Hoard'
757 - 796	Offa the powerful Anglo-Saxon King of Mercia had his palace at Tamworth. Offa's Dyke is the 149 mile-long barrier between Wales and Mercia. He also introduced the 'English Penny' silver currency
Mid 9th century	Saxon watermill built by the Tame in Tamworth
913 - 918	Aethelfleda 'Lady of the Mercians' (daughter of King Alfred the Great) ruled the kingdom of Mercia, built the burh (fortification) at Tamworth and led successful attacks on the invading Danes (Vikings)
963	St Editha's Church built in Tamworth, the third church on this site
1070-80	Motte and bailey castles built at Tamworth and Castle Bromwich
1080s	Sandstone walls of Tamworth Castle built
1086	Many features of the area are mentioned in Domesday Book, including Middleton Hall, a watermill at Lea Marston and a priest at Coleshill
1207	Coleshill granted a market charter by King John
14th century	A Chapel of Ease was erected at Water Orton to save villagers trudging through the often flooded Tame Valley to the Parish Church at Aston
1345	Fire destroyed much of Tamworth town, including most of St Editha's church, which was re-built (completed in 1369)
1520	Packhorse bridge over the Tame built at Water Orton
1560	Charter given to Tamworth allows markets to take place
1575	Queen Elizabeth I visited Middleton Hall and knighted Sir Francis Willoughby in the Great Hall
1588	Second charter granted to Tamworth
1619	James I visited Tamworth Castle
Around 1650	Lea Ford cottage built by the ancient ford across the river
1653-76	Izaak Walton published editions of 'The Compleat Angler' and enjoyed fly fishing on the River Tame
1666	John Ray lived at Middleton Hall and worked with Francis Willughby
1676	John Ray published Francis Willughby's 'Ornithologica' the first book ever published on ornithology
1678	Thomas Guy founded the Almshouses in Tamworth

1701	Tamworth Town Hall was built with the Buttermarket underneath
1747	Sir Charles Adderley (1610-82) acquired Hams Hall by marriage from Ralph Floyer, who bought it from Sir John Ferrers, equerry and Master of Horse to King Charles I
1760	A new house was built at Hams Hall to replace an earlier manor house
1789	Birmingham and Fazeley Canal opened. Drayton Turret footbridge and swingbridge may have been built then or added later when Sir Robert Peel built his new manor house at Drayton Bassett
1796	Ladybridge crossing the confluence of the Tame and Anker is built
Early 19th century	During the Industrial Revolution, industries began to pollute the river. Initially such pollutions were from tanneries and dye houses, metals, weapons production and general domestic waste as towns grew in size.
1826	Charles Bowyer Adderley inherited the Hams Hall estate from his great-uncle. He became the 1st Lord Norton in 1878
1829	Sir Robert Peel (MP for Tamworth) as Home Secretary, founded the Metropolitan Police Force, hence the nicknames 'bobbies' and 'peelers'
1830s	Sir Robert Peel demolished Drayton Manor and rebuilt it in Elizabethan style
1834	Sir Robert Peel as Prime Minister delivered his 'Tamworth Manifesto' from the window of Tamworth Town Hall
1837	Trout from the River Tame was on the menu at Queen Victoria's coronation dinner
1839	George Stevenson opened the 19 - arch railway viaduct crossing the River Anker, driving 'Tamworth' (one of his engines). The Birmingham and Derby Junction Railway later became part of the Midland Railway.
1841 - 46	Sir Robert Peel Prime Minister for a second term and is visited at Drayton Manor by Queen Victoria and Prince Albert (1843)
1847	Trent Valley Railway opening ceremony attended by George Stevenson.
1847	Gibbs and Canning Pottery works opened in Tamworth, using local clay to make statues and pipes for many important British buildings including the Royal Albert Hall and Natural History Museum in London
1865	Tamworth pigs (Sandybacks) were recognised as a breed. (In 1812, Sir Robert Peel had interbred his herd at Drayton with 'Irish Grazer' pigs from Ireland to create the breed)
1873-4	Ford Maddox Brown and Edward Burne-Jones designed stained glass windows for William Morris and Co for St Editha's Church in Tamworth
1879	Lord Norton sold Whitacre Lodge to Birmingham Corporation for the construction of Shustoke Reservoir
1880	12 collieries recorded as working in the Tamworth area of the North Warwickshire coalfield. Rapid growth of the railways in the mid 19th century helped develop the coalfield and local towns and villages expanded as miners moved into the area
1895	Prime Minister William Gladstone visited Hams Hall and commented on the smell from Birmingham's sewage pollution in the River Tame
1895	Charles Adderley's (Lord Norton) lawsuit against Birmingham Corporation was settled after 37 years of argument and £5,000+ was granted to clean the River Tame along its course through the Hams Estate
1897	Tamworth Corporation bought Tamworth Castle for £3,000 to celebrate Queen Victoria's Diamond Jubilee
1910	A disastrous pit fire at Birch Coppice (Hall End) Colliery was started when lightning struck the wooden headgear

1911	Hams Hall sold to Birmingham Corporation after Lord Norton's death in 1905
1913	Monument erected beside Tamworth Castle to commemorate the millennium of Aethelflaed's construction of the burh at Tamworth
1927-9	'Hams Hall A' power station built
1935	Reliant car factory (which had its origins in Tamworth) opened in Fazeley
1940-1941	Many pill boxes, tank traps and concrete pillars were built along the course of the River Tame to form a line of defence against invading troops and prevent gliders from landing in open areas
1949	'Hams Hall B' power station built
1958	'Hams Hall C' power station built
1960s	Industrial-scale sand and gravel extraction began along the River Tame
1966	Middleton Hall estate purchased by Amey Roadstone for gravel extraction
1971	Hams Hall Environmental Education centre opened by David Attenborough
1975	Kingsbury Water Park opened
1975 - 1993	Hams Hall 3 power stations closed and demolished
1976-7	Lea Ford Cottage moved from its original site by the River Tame to the nearby Hams Hall Environmental Education Centre
1981	HM Queen Elizabeth ll opened Ankerside Shopping Centre. The River Tame was diverted around the new building
1985/6	M42 motorway through The Tame Valley Wetlands was opened
1997	Reliant car factory moved from Fazeley to Cannock (closed in 2001)
2007	Kingsbury Water Park briefly closed after worst flooding since 1930s
2009	Staffordshire Hoard found at Hammerwich near the present A5 (Roman road known as Watling Street) by Terry Herbert, a metal detectorist
2009	New High Speed Rail (HS2) route investigated
2012	The Government announced that HS2 would go ahead. Phase 2 will see the line branching at Coleshill passing through the Tame Valley Wetlands Landscape area
2013	Daw Mill Colliery at Arley near Coleshill (the last surviving mine in Warwickshire) closed after a serious underground fire
2014	Hams Hall Environmental Education Centre closed
2014	The Tame Valley Wetlands Landscape Partnership Scheme secured Heritage Lottery funding and began working on restoring and improving the wetlands landscape and heritage

A Countryside Code

Respect, Protect and Enjoy

Respect

Respect other people

Please respect the local community and other people using the outdoors. Remember your actions can affect people's lives and livelihoods.

Consider the local community and other people enjoying the outdoors

- Respect the needs of local people and other visitors alike – for example don't block gateways, driveways or other paths.
- When riding a bike or driving a vehicle, slow down or stop for horses, walkers and farm animals and give them plenty of room. By law, cyclists must give way to walkers and horse- riders on bridleways.
- Co-operate with people working in the countryside. For example, keep out of the way when farm animals are being moved and follow directions from the farmer.
- Busy traffic on small country roads can be unpleasant and dangerous to local people, visitors and wildlife - so slow down and where possible, leave your vehicle at home, consider sharing lifts and use alternatives such as public transport or cycling.

Leave gates and property as you find them, follow paths unless wider access is available

- A farmer will normally close gates to keep farm animals in, but may sometimes leave them open so the animals can reach food and water. Leave gates as you find them or follow instructions on signs. When in a group, make sure the last person knows how to leave the gates.
- Follow paths when walking in the countryside.
- Leave machinery and farm animals alone – don't interfere with animals even if you think they're in trouble. Try to alert the farmer instead.
- Use gates, stiles or gaps in field boundaries if you can – climbing over walls, hedges and fences can damage them and increase the risk of farm animals escaping.
- Our heritage matters to all of us – be careful not to disturb ruins and historic sites.

Protect

Protect the natural environment

We are all responsible for protecting the countryside now and for future generations, so make sure you or your dogs don't harm animals, birds, plants or trees.

Leave no trace of your visit and take your litter home

- Protecting the natural environment means taking special care not to damage, destroy or remove features such as rocks, plants and trees. They provide homes and food for wildlife, and add to everybody's enjoyment of the countryside.
- Litter and leftover food doesn't just spoil the beauty of the countryside, it can be dangerous to other visitors, wildlife and farm animals – so take your litter home with you. Dropping litter and dumping rubbish are criminal offences.
- Fires can be as devastating to wildlife and habitats as they are to people and property – so be careful not to start fires at any time of the year. If a fire appears to be unattended then report it by calling 999.

Keep dogs under effective control

When you take your dog into the outdoors, always ensure it does not disturb wildlife, farm animals, horses or other people by keeping it under effective control. This means that you:

- keep your dog on a lead, or
- keep it in sight at all times, be aware of what it's doing and train it well so it will return to you promptly on command
- ensure it does not stray off the path or area where you have a right of access

Special rules may apply in particular situations, so always look out for local signs.

- dogs may be banned from certain areas that people use, or there may be restrictions, byelaws or control orders limiting where they can go
- It's always common sense (and a legal requirement on 'open access' land) to keep your dog on a lead around farm animals and horses, for your own safety and for the welfare of the animals. A farmer may shoot a dog which is attacking or chasing farm animals without having to compensate the dog's owner
- however, if cattle or horses chase you and your dog, it is safer to let your dog off the lead – don't risk getting hurt by trying to protect it. Your dog will be much safer if you let it run away from a farm animal in these circumstances and so will you
- everyone knows how unpleasant dog mess is and it can cause infections, so always clean up after your dog and get rid of the mess responsibly –' bag it and bin it'. Make sure your dog is wormed regularly to protect it, other animals and people

Enjoy

Enjoy the outdoors

Even if you know the area, it's best to get the latest information about where and when you can go. Find out as much as you can about where you are going, plan ahead and follow local advice and signs.

Plan ahead and be prepared

- You'll get more from your visit if you use up-to-date maps or guidebooks and websites before you go. Contact local information centres or libraries for information.
- You're responsible for your own safety and for others in your care – especially children - so be prepared for natural hazards, changes in weather and other events. Wild animals, farm animals and horses can behave unpredictably if you get too close, especially if they're with their young - so give them plenty of space.
- Check weather forecasts before you leave. Conditions can change rapidly so don't be afraid to turn back if the weather takes a turn for the worse.
- We all enjoy the countryside because it allows us to 'get away from it all'. There are many places without clear mobile phone signals, so in case of emergency let someone else know where you're going and when you expect to return.

Follow advice and local signs

England has about 190,000 km (118,000 miles) of public rights of way, providing many opportunities to enjoy the natural environment. Get to know the signs and symbols used on maps and in the countryside to show paths, rivers, canals, woodland and open land.

Adapted from a Natural England Publication, the complete leaflet can be downloaded at

www. naturalengland.org.uk

Help do your bit to protect the Tame Valley Wetlands by:

- Staying on the paths
- Keeping noise to a minimum
- Keeping dogs (if allowed on sites) on a lead and cleaning up their mess
- Taking all litter home with you
- Getting involved through volunteering
- Joining local groups and conservation organisations in the Tame Valley Wetlands
- Reducing your water usage
- Avoiding the use of harmful detergents in your home
- Creating a wildlife-friendly pond in your garden
- Using peat-free compost when you're gardening

THE wildlife TRUSTS Warwickshire

LOVE YOUR RIVER WEST MIDLANDS

LOVE YOUR RIVER TEN POINT PLAN

Keeping your river and seas clean - Remember your local river starts at the end of your drive-way where the surface water pipes run from your house to your local river/stream and in turn to the sea. Even if you can't see the river or the sea from your front door you do affect it.

Wash your car on gravel or grass

...not on tarmac driveways or the street where water can run quickly and directly into the surface water drain.

WASH MARK 2012

☐ Tick Box

Check your home for misconnections

www.connectright.org.uk

Washing machines, dishwashers, sinks, toilets and baths – they should all go into the foul drain not the surface water drain!

connect right Stop pollution

☐ Tick Box

Wheelie Bin Washing

Make sure they are washed on gravel or grass and check the soapy water doesn't run into the surface water drain.

☐ Tick Box

DOG POO! Always pick it up and take home!

Leaving it on the street, park or woodland can lead to it being washed into the river.

☐ Tick Box

Use ECO FRIENDLY Products

Phosphate-free laundry detergents help to minimise the chemicals that water companies have to remove from the water at sewage works.

☐ Tick Box

Dispose of WASTE Carefully

Never tip paint, white spirit, oils and other chemical waste down the sink or outside drains – take them to your local refuse centre/tip.

☐ Tick Box

Be sparing with slug pellets

...and other chemicals in your garden. They can leach into surface water drains and pollute the ground water causing an irreversible impact on our drinking water.

☐ Tick Box

Don't drop litter or fly-tip

Rubbish, no matter how small can cause damage to wildlife and also lead to blockages.

Please don't pollute your river with rubbish!

☐ Tick Box

Keep an eye out for RIVER POLLUTION

Dead animals, changes in water colour, smell, oil on the surface or signs of increased algae can all be an indicator of pollution.

Report any possible pollution to the Environment Agency

t: 0800 80 70 60 Environment Agency

GET INVOLVED

You can help clean up your local river by volunteering with Friends of Groups. Enjoy your river and encourage others to do the same.

LOVE YOUR RIVER WEST MIDLANDS

☐ Tick Box

Creating a **Living Landscape**

Places to Visit in the Tame Valley Wetlands Area

Warwickshire Wildlife Trust (WWT)

WWT provide outreach services to schools in the Tame Valley Wetlands area. Contact Simon Lowe at Hams Hall (TVWLPS) (01675 470917), Vicky Dunne, Senior Education Officer at Brandon (02476 308974) or Jessie Longstaff, Education Officer at Parkridge (02476 302912)

Whitacre Heath Nature Reserve

Whitacre Heath Site of Special Scientific Interest (SSSI) is a key site within the Tame Valley. Lying on the floodplain, this 44ha former gravel working site has a mosaic of habitats including shallow pools, wet grassland and wet woodland. The reason for the site's SSSI status is for its breeding water birds. Many interesting plants can also be seen here and over one thousand species of invertebrates have been recorded on the reserve.
The reserve has mostly flat informal paths with a way-marked route to 5 bird hides. Paths are prone to flooding and are muddy in winter. Open to members of the Wildlife Trust only, with good car parking facilities on the Birmingham Road, 0.5km south-east of Lea Marston. There are no toilets or facilities on this site. Contact: www.wkwt.org.uk for more details.

Warwickshire County Council

Kingsbury Water Park

The largest of Warwickshire County Council's Country Parks is bordered by the River Tame and the Birmingham and Fazeley Canal. There are 600 acres of habitats to explore including wetlands, meadows and woodlands with marked trails and miles of flat, surfaced paths. Facilities include a miniature railway, play areas, information centre, cafe, toilets and shop, an indoor education centre and Ranger-led education programmes for Foundation Stage up to Key Stage 3, including KS 2 Rivers and KS1/2 Minibeasts. Year round inclusive programmes and outreach visits are available from October to March. Extended days with camp fires can be arranged at an additional cost.
Contact ; Tracy Jones, Kingsbury Water Park, Bodymoor Heath Lane, Bodymoor Heath, Sutton Coldfield, B76 0DY Tracyjones@warwickshire.gov.uk Tel: 01827 872660. Website: www.warwickshire.gov.uk/parksed

Staffordshire Wildlife Trust

Croxall Lakes - Across the River Tame from the National Memorial Arboretum at Alrewas. Previously quarried for sand and gravel, Croxall Lakes now provides a home for a wide range of wintering and breeding birds. No toilets or facilities at this site. Access from A513 Croxall Road. Contact Staffordshire Wildlife Trust on 01889 880100 or visit the website www.staffs-wildlife.org.uk.

Tamworth Borough Council and Staffordshire Wildlife Trust

'Wild About Tamworth' – several wildlife sites in Tamworth Borough (some detailed below) The project also gives schools and groups the opportunity to go to the reserves on educational visits. The 'Wild About Tamworth' Project Officer can take classes to the reserves and lead environmental activities. For more information about the project please contact the Project Officer: 07970 067711 Email: tamworth@staffs-wildlife.org.uk

Tameside Local Nature Reserve(LNR)

Tameside was originally pasture land on the banks of the River Tame and is now a valuable site for wildlife as well as an important green space for people. The reserve is a mixture of grassland, scrub, wetland, scrapes and island habitat. New woodlands have been planted and the banks of the River have been re-profiled, creating a gentle slope down to the water's edge. Tern island is always a busy area. The Coventry canal borders the southern edge and here you can see the aqueduct where the canal crosses the river. Access from Fazeley Road (A4091), the main entrance to the site is on the left side just before Meadowbank.

Dosthill Park Local Nature Reserve (LNR)

Take a walk through the park and down to the River Tame. Here you will be rewarded with a wonderful view of the river and Dosthill Quarries beyond. The LNR is managed by Dosthill Park Wildlife Group through the 'Wild about Tamworth' project. Access from Blackwood Road, 3km to the south of Tamworth town centre, between the A51 (Tamworth Road) and the River Tame. Contact: www.tamworth.gov.uk

Broad Meadow

This island between the River Tame and the flood relief channel is an ideal habitat for herons, terns, skylarks and lapwings. It also has a population of the rare snake's head fritillary plant. Access from Oxbridge Way, via the bridge over the weir to the west of the site. Contact: www.tamworth.gov.uk

Egg Meadow

Situated in the centre of Tamworth. In spring, look out for the displays of snake's head fritillary and the other wildflowers in the meadow. You can also enjoy the circular cycle route which runs around the outside of the site. Access from the Snow Dome car park. Contact: www.tamworth.gov.uk

Borrowpit Lake

What to do & see: Enjoy a walk around the lake and see Tamworth's famous swans and many other wetland birds. Access from the Snow Dome car park. Contact: www.tamworth.gov.uk

Tamworth Borough Council

Tamworth Castle

Strategically positioned high on a cliff above the confluence of the Rivers Tame and Anker, the site of this motte and bailey castle dates from soon after the Norman Conquest. The warm red sandstone walls are thought to date from the 1180s and together the rivers form its defensive moat. See the armoury, dungeon, Great Hall and other historic rooms. Visit 'The Tamworth Story' exhibition to discover the history of Tamworth from Roman times to the present day. See replicas of the 'Staffordshire Hoard', the Saxon water-mill wheel, and many other exhibits from the Museum Collection. There are plans to develop this exhibition and create the new 'Staffordshire Hoard and Saxon Tamworth Gallery'.

Educational visits and workshop sessions are available all year round for Foundation Stage to Key Stage 4. These include storytelling, Local History, Saxon, Medieval, Tudor, Civil War, Victorian and World War 2 workshops (Primary), Changes over Time on Buildings and Landscapes and Leisure and Tourism studies (Secondary). All sessions can be adapted to the needs of visiting groups. Contact the Education Team on 01827 709632/626 or e mail castleeducation@tamworth.gov.uk. Visit the website at www.tamworthcastle.co.uk for more details.

Tamworth

Tomtum (Tametown) was the ancient capital of Mercia and site of King Offa's Palace and Mint. In 757 AD he became the most powerful of all Saxon rulers and is also known as King of all the English. His palace was so magnificent in style and furnishings, that it was declared to be 'the wonder of the age'. Tamworth's history is crammed with warfare and prosperity due to its location at the hub of travel routes and available natural resources. Much of its grand architecture remains.

A very useful self-guided walking Heritage Trail is available to download from Tamworth Borough Council at www.tamworth.gov.uk/heritage-trail. The Heritage Trail is also available from the Tourist Information Centre and as a free iPhone app. The guide helps visitors explore the many historical buildings and sites around the town, including: St Editha's Church, Town Hall, Robert Peel statue, Castle, Aethelfleda Monument, the Moat House and Ladybridge (over the confluence of the two rivers).
Tamworth's Green Badge Guides provide walking tours of the town bringing history to life for visitors. Visit their website to find out more: www.tamworthtownguides.co.uk.
For more information contact Tamworth Tourist Information Centre, Phillip Dix Centre, Corporation St., Tamworth, Staffordshire, B79 7DN. Tel**:** 01827 709581/618. Email: tic@tamworth.gov.uk

Middleton Hall

Middleton Hall is set in 40 acres of North Warwickshire countryside and run by an independent charitable trust. The Hall and grounds are open to the public. Middleton was mentioned in the Domesday Book and a range of historic buildings can be seen, the oldest on site dates from 1285. Elizabeth I stayed at the Hall for a week in 1575 and it was home to the father of natural history, Francis Willughby FRS (Founder member of the Royal Society) who wrote the first book on ornithology ever published - and John Ray called 'The Father of English Natural History' because of his system of plant classification.

Middleton Pool, said to be the oldest man-made lake in Warwickshire, and the land around it is a Site of Special Scientific Interest with nature trails. The beautiful formal gardens were often visited by Gertrude Jekyll and include one of the earliest examples of a heated walled garden in the country. The Peel Collection and Police Museum are also housed in the Hall. Contact: The Middleton Hall Trust, Middleton Hall, Middleton, Tamworth, Staffordshire B78 2AE Tel: 01827 283095 E mail:enquiries@middleton-hall.co.uk. Website: www.middleton-hall.co.uk

Royal Society for the Protection of Birds (RSPB)

Middleton Lakes

The reserve is only a short walk from facilities at Middleton Hall. There are good paths around the wetlands, with reed beds, woodland and open water, where a large variety of wildlife can be seen. Entrance for RSPB members is free, there is a charge for non-members. There are no toilets or facilities for school visits. See the RSPB website for details of outreach activities and resources for classroom use.
Contact: www.rspb.org.uk/middletonlakes

National Memorial Arboretum

At Alrewas, (close to the confluence of the Rivers Tame and Trent)
Facilitated and self-led visits available. Teachers can download resources from website (KS 2-4). 150-acre site with over 30,000 trees, varied wildlife habitats and riverside walk. Pond dipping equipment available for hire on selected days but visitors with their own equipment are welcome. Bug explorer back packs available for hire, children's woodland and activity area for children over 7 years. Picnic areas. Free entry and coach parking.

Younger visitors can discover animal symbolism on memorials with the help of an animal trail leaflet (£2.50). World War I discovery trail. The Land Train takes you on a guided tour of the site. The train runs every 30 minutes from 9.30am - 3.30pm (hourly in winter) and costs £5 per adult and £2 for children 5 -12 years. (Not in January)

During the school holidays various events encourage children to get hands-on in the grounds. Visit the website for further information – www.thenma.org.uk

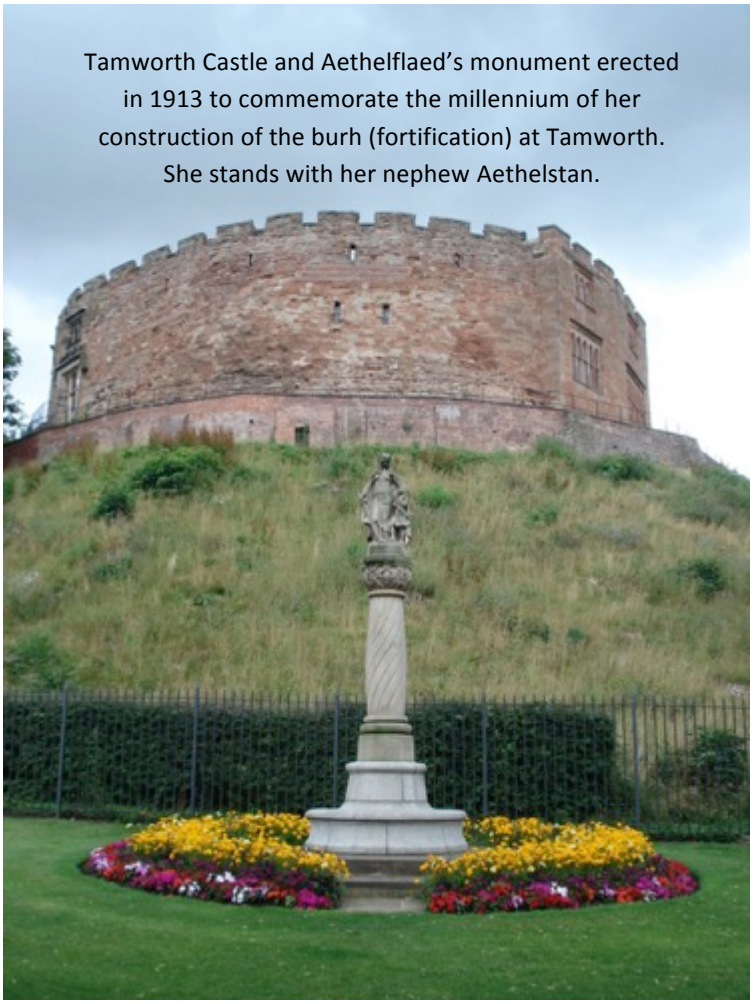
Croxall Road, Alrewas, Staffordshire DE13 7AR. For further information or to book, please contact the Arboretum Email: groups@thenma.org.uk or telephone: 01283 245 143.

Severn Trent Water

Shustoke Reservoir

The reservoir was completed in around 1884 to provide clean water for Birmingham. Water from the River Bourne now supplies parts of Coventry, Nuneaton, Bedworth and Atherstone. The site is open from dawn until dusk, every day except Christmas Day. The lower reservoir has full public access, a flat, circular walk of around two miles and is full of wildflowers in the spring. Unusual birds can often be spotted here. There are no toilets, educational or catering facilities here.

Visit www.stwater.co.uk for Severn Trent's 'Learning Zone' including information and curriculum-linked activities about the water cycle, water treatment, sewage, climate change and pollution. Teaching resources for all ages are available to download.



Tamworth Castle and Aethelflaed's monument erected in 1913 to commemorate the millennium of her construction of the burh (fortification) at Tamworth. She stands with her nephew Aethelstan.

Activity Pages

Reedbed at RSPB Middleton Lakes

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1 Where does the River Tame come from and go to?

(Supports English, Mathematics, History, Geography and Technology Primary National Curriculum)

This River Tame
Grey metallic silk artery of revolutionary industries
This River Tame
Bends at will and yet re-formed for greater design
This River Tame
Omnipresent friend silent and sometimes unseen
This River Tame
Seemingly forever rolling the gravel pits of time

(Part of a poem by Brendan Hawthorne ©Brendan Hawthorne 2015)

What you need:

- photocopies of the information pages '20 things you may not know about the River Tame' and the 'Glossary'
- atlas and/or Ordnance Survey map showing the river from its source to confluence with the River Trent (OS Explorer - 232 - Nuneaton & Tamworth) and out to sea in the Humber estuary
- pencils, felt tips, crayons or paints
- long roll of paper (lining wallpaper is ideal)
- scissors, glue, paintbrushes

What to do:

- Read the information pages together. This could form part of a whole class or group reading session. Highlight and look up in the Glossary any of the words you don't know.
- Find the River Tame in your atlas or on the map and follow it from its source to its confluence, then out to sea in the Humber estuary. How many tributaries, lakes, islands and bridges can you find along the route of the Tame?
- In which direction does the river flow? Does it change direction at any point?
- Using all the information you have, draw a large sketch map of the River Tame on the long roll of paper and colour it in. Make sure you show how it gets wider as it flows towards the River Trent and mark on it any cities, towns and villages that lie along its route. Make it to scale, add a key and mark where North is on your map.
- Draw, cut out and stick on to the map, your pictures of any interesting things you know or have discovered about the river, for example, what industries, historic sites, bridges or nature reserves are on its banks, what lives in it or near it.
- Display your map on the wall.

- Use your map to tell a story about the River Tame. It could be a story told by the river itself, or someone travelling along its route, or a creature living by it. Your story could be one from long ago, the present day or any time in between. It could even be a sound story, sung or played on musical instruments. (See also Activity 3)

≈ **Visit Kingsbury Water Park (Warwickshire Country Parks) to learn more.**

Trace the River Tame's route through Birmingham on Ordnance Survey maps and look at river features on a slide show, followed by a walk to look at the river as it flows through the park.

≈ **Investigate some of the different bridges over the River Tame.**

Visit some of the old and newer bridges over the river. How and when were they built? Look at the materials used. Make models to show the way the bridge is supported. How did bridge design change over the centuries?

Confluence of the Rivers Tame and Anker at Tamworth

2 Why does the River Tame sometimes flood?

(Supports English, Mathematics, Science, Design and technology and Geography Primary National Curriculum)

Flooding in urban areas has many different causes. These include: canalisation of river banks; loss of upstream habitats which store water such as lakes, flood meadows and marshes; building developments in the natural floodplain of the river; more hard surfaces across towns and cities and drainage systems that cannot cope with the huge volumes of water that run off them during heavy rain or melting snow.

It has been shown that creating flood storage areas upstream of towns can protect people, their homes and businesses. Very often these wetland areas also bring other benefits for wildlife and people. It's very important to create more space for water close to and in urban areas and to find ways of dealing with the problems caused by water running off hard surfaces like roofs, streets, car parks and paved gardens.

Floods also make pollution in our rivers much worse. In our towns and cities sewers sometimes overflow directly into rivers during floods - affecting river quality and ecosystems. For example, combined sewer systems, in which both foul water from sinks and toilets and storm water run-off is carried in the same pipes, are under severe pressure when more houses or businesses are built and there is a reduction of green spaces for absorbing the water.

To cope with this and to stop the dirty water backing up through our drains the system empties itself into a local river or stream when it is full, through a device known as a Combined Sewer Overflow. After heavy rainfall, everything that has run down the drain ends up in our local waterways. Household chemicals such as bleach and washing detergents, and products like cooking oil are not good for aquatic habitats – they can poison wildlife and increase nutrients leading to reduced levels of oxygen in the water.

Flooding in river valleys is a natural event and floodplains exist to allow this to happen. Wetlands act as a sponge, soaking up the run-off from towns, filtering pollutants and providing flood protection for homes and farmland. TVWLPS aims to help protect and extend natural habitats – especially wet meadows and pools that soak up and store rainwater. We can also reproduce these natural processes in urban areas by creating water-holding habitats in urban areas, installing green roofs on our houses, using porous surfaces in our towns and cities and developing more sustainable drainage systems to capture excess water.

Make a river model

What you need:

- a large sand tray
- something to prop up one end of the tray a little
- sand, gravel and a few pebbles/stones

- a stick
- funnel
- 2 litre jug of water
- a second timer
- washing up bowl to catch water if necessary
- paper, pencils and/or computer

What to do:

Part One

1. Line the sand tray with sand and put the gravel and stones around the tray
2. Make a straight channel through the centre of the tray with your finger or a stick (your 'canalised' river)
3. Tip up one end of the tray just a little
4. Start the timer as you pour water slowly through the funnel at the higher end of the tray so it runs down the channel you've made
5. When all the water has reached the other end of your 'river' stop the timer
6. Talk about what happened and how quickly the water flowed down your river

Part Two

1. Line the tray with dry sand again, replacing the gravel and stones as before
2. Make a meandering, twisty river channel this time with the stick
3. Repeat points 3 to 5 as before
4. Design a chart to show your results. You could make one on paper or draw one on a computer

What differences did you see in how your river flowed this time? How long did the water take to reach the end of your river? What does this tell you? Can you think of any ways to slow down the river even more to prevent flooding?

≈ **Visit Severn Trent Water www.stwater.co.uk/leisure-and-learning/learning-zone/**

for more information and activity ideas about the water cycle, water and sewage treatment, pollution and conservation. More information about flooding on the Tame can be found at www.gov.uk (Environment Agency)

3 When and how has the Tame Valley Wetlands area changed over time?

(Supports English, Mathematics, Computing, History and Geography Primary National Curriculum)

Nearly two million people live close to the River Tame – the main river flowing out of Birmingham and the largest tributary of the River Trent. The River Tame and its surrounding floodplain was heavily influenced by human activity and has seen many changes over the centuries. Over the last century, areas of the floodplain have been drained, woodland has been cleared and the river has been heavily engineered and polluted. This has left a degraded and neglected landscape.

Despite this historical damage, the river is now cleaner and the old sand and gravel working sites, which once blighted the landscape, now help to form the largest series of interconnected wetlands in Warwickshire. These wetlands lie central to the unique character and importance of the area.

From The Tame Valley Wetlands Landscape Partnership (TVWLP) Scheme website

What you need:

- photocopies of the information pages 'A Tame Valley Wetlands Timeline'
- atlas and/or Ordnance Survey map showing the river from its source to confluence with the River Trent (OS Explorer - 232 - Nuneaton & Tamworth)
- your large river map from Activity 1
- pencils, crayons, felt tips or paints
- scissors, paintbrushes, glue
- computer

What to do:

- Read the information in the timeline and split it into centuries or different time periods
- Create symbols/pictures to show how the river was used at different times in history and stick them on to your map in the relevant locations. You could colour-code the symbols/pictures to make the changes clearer
- Create a page for each time period on a computer and put them into a presentation about the river valley's history, showing how it has changed over time

≈ **Visit Tamworth Castle** - Saxon, Medieval, Tudor, Victorian and World War 2 workshops. Find out much more about the history of the Tame Valley area.

4 How is the Tame Valley Wetlands area used now?

(Supports English and Geography Primary National Curriculum)

Today, there is a very different landscape to be enjoyed by nearly two million people who live close to the River Tame. Despite the historical damage, the river is now cleaner and the old gravel working sites, which once blighted the landscape, now help to form the largest series of interconnected wetlands in the county.

Warwickshire Wildlife Trust

What you need:

- Ordnance Survey map of the Tame Valley Wetlands Landscape area – (OS Explorer - 232 - Nuneaton & Tamworth)
- Local town maps
- large map of River Tame Wetlands area from Activity 1
- pencils, crayons, felt tips or paints
- scissors, paintbrushes, glue, paper
- computer

What to do:

- Look on the maps and search online for societies, clubs and businesses in the Tame Valley Wetlands area.
- Make lists of ways in which people use the Tame Valley Wetlands now. You could put them into categories such as leisure, natural resources, wildlife, agriculture, industry, transport etc.
- Draw illustrations for each activity and stick them on to your map.
- Talk about how important the river valley is for each of these groups.
- Write a leaflet or create a computer presentation about how important the Tame Valley Wetlands area is to local people highlighting all the ways they enjoy and benefit from the landscape. Do they look after the environment? In what ways?

≈ **Visit one or more of the organisations** and interview them or their visitors about their use of the river and how they care for the environment. Film a news report about the Tame Valley Wetlands Landscape area, its importance to local people and why and how we should all care for it.

5 How can I be a naturalist and study habitats like John Ray?

(This activity supports English, Mathematics, Science, Computing, Art and Design, History and Geography Primary National Curriculum)

John Ray (1627 – 1705) was one of the first great British naturalists and lived for a time at Middleton Hall, where he worked with Francis Willughby who owned the estate. They made many trips around Britain and Europe, studying nature and publishing books about birds, fish, fossils and plants. John Ray was the first naturalist to group species together and his work was later used by both the Swedish botanist Carl Linnaeus who popularised the scientific system of classifying plants and animals that is now universally used. This is the two-name system, in which each living thing is assigned a name consisting of two Latin words, (for example, the Little Grebe is *Tachybaptus Ruficollis. Tachybaptus* means "rapid-submerging" (*tachy* from the Greek "takhos" for fast and *baptus* from the Greek "bapto" for submerge). *Ruficollis* means "red-necked" (*rufus* is Latin for reddish & *collus* is Latin for neck). Charles Darwin also used Ray's ideas when he wrote about the theory of evolution.

If you want to be a naturalist like John Ray, you'll be using some very special, delicate, scientific equipment as you explore and discover the world around you. We all have this amazing equipment, but some of us are better at using it than others. Let's hope you are one of those experts. So what *is* all this equipment?

- **Eyes** – to see and record light, shape, colour, pattern, texture, and lots more
- **Ears** – to hear and record sounds, volume, pitch, rhythm etc
- **Noses** – to smell and remember chemicals in the air, scents (and pongs too!)
- **Skin** – sensitive to touch, temperature and textures
- **Brain** – this is the most important of all. It's used to understand and store the information gathered from all the others

Use all your special equipment carefully to be a naturalist.

- **Explore -** There are many interesting places to explore in the Tame Valley Wetlands. Habitats like ponds, boggy places, woods, grassland, gardens, and around buildings are all home to lots of different plants and creatures. Explore as many as you can.
- **Discover** – Take your time to find what's growing and living in different places in each habitat. Use binoculars, hand lenses, pond nets, viewers etc to find as much as you can. The closer you get, the more you'll see.
- **Observe** – Sit quietly, move slowly, walk carefully and watch what's going on. You can learn a lot about how birds and animals live by watching what they do. Look closely for details, use identification books or charts, ask questions and share what you see with others, to help you understand what you've found.

- **Record –** If you can't find out what something is called, describe it and give it a name you've made up yourself. Make notes, do sketches, take photographs and make sound recordings to help you remember as much as possible about the things you find and to identify them later.
- **Classify -** Put everything you find into groups, maybe according to where it was found, the type of plant or creature it is, its size, colours, behaviour, or choose your own classifications, explaining why you used them.
- **Protect –** Treat habitats and everything you find there with care. They are all living things and have their place in the world. Make sure you put any creatures back, as quickly as possible, exactly where you found them, after you have recorded them. Collect only dead things from the ground, leave flowers and trees for wildlife and other people to enjoy.
- **Enjoy –** Above all, enjoy being outdoors and finding out about the world around you.

You may also need some other equipment:

Notebooks and pencils, sketchbooks, cameras, hand lenses, lidded collecting and magnifying pots, pooters, white collecting trays, identification charts, keys and books, thermometers (soil and air), light and moisture meters, pH level indicator paper, small bottles of water (soil study), measuring tapes, hoops or quadrats (grids), tree measurers, clinometers, compasses.

What to do

- Before you start, predict and discuss what you think you may find in the habitat.
- Decide on the boundaries of the study area and what equipment is needed.
- Remind everyone that this is a precious environment and nothing is to be harmed or destroyed. Work and walk carefully!
- Make notes to describe what the habitat is like before you start looking more closely.
- Work in small groups to investigate different aspects of the habitat. Each group could explore one of the sections below.

Light levels in the open and in shade, on the ground and at 1 metre above ground. Take readings in a number of places and calculate averages.

Soil structure, colour, size of particles, organic matter, moisture levels in the open and at the base of plants, test the pH level in various places and calculate averages.

Temperature at ground level in the soil and at 1 metre above the ground. Take measurements in the open and under shade and calculate differences and averages.

Plants growing in the area, use quadrats or hoops to look for different varieties in a small area and measure the heights of plants and trees the circumference of tree trunks, look for flowers, seeds, fruits, mosses, algae and lichens. Fungi, may be found at some times of the year. Remember that many fungi are poisonous, so do not touch them at all. Wash your hands before eating anything afterwards and do not put your fingers in your eyes or mouth while studying them. Use charts and keys to help you identify what you find. Group plants, lichens and fungi according to things you observe about them.

Animal/bird tracks and signs, prints, droppings, any sightings of birds or mammals, amphibians or reptiles. Use charts and keys to help you identify your findings. Group the animals and birds you find, observing their differences and similarities.

Minibeasts on the ground, in the grass, under logs and stones, on plants or flying in the air. Use charts and keys to help you identify them and classify into groups according to what you have observed about them, their similarities and differences.

Remember, to be a naturalist you need to record your discoveries in as many ways as possible.

- Groups could compare and present their findings at the end of the activity. How are plants/animals different or similar in each habitat?
- Create a food chain or food web for the habitat, based on what you have found out about it and the things that live in it.

A simple food chain for a pond could be:

sun ⟶ green plant ⟶ tadpole ⟶ fish ⟶ heron

Food webs show how interdependent plants and animals are. Do more research into food webs and the interdependence of the living things found in the habitats. Talk about how habitats are similar or different. How have plants and animals adapted to each habitat? What natural connections have you found? Think about what would happen if one part of the food web was affected by human activities, pollution or climate change. Can you see the effects of any of these problems in the habitat you studied? How can we all help to look after habitats in the future?

≈**Visit Middleton Hall –** see where John Ray and Francis Willughby lived, learn about their work and discover varied habitats in the grounds.

The John Ray building at Middleton Hall, built in 1647. He lived here between 1660 and 1673. ©M Morland 2016

The lake at Middleton Hall

6 Food Chain and Food Web Games

(Supports English and Science Primary National Curriculum)

What you need:

A yellow football, balls of string or wool, card badges for everyone in the group, a flat area of ground, notebook and pencil.

What to do:

Decide which habitat you'll use for the game. Make a card badge with a drawing of a plant or animal found there, and write on it where it gets its energy from, and what in turn feeds on it. Make sure everyone in your group chooses something different that can be found in the habitat.

Part 1 – Food Chains

Start by making a simple food 'chain', in this example a pond. One person stands in the centre of the open space holding the yellow football to represent the sun. The ball of string or wool represents the flow of energy from the sun. The 'sun' holds the end of the string and passes the ball of string to the plant, the plant holds on to the string and passes the ball of string to one of the animals that feed on plants, the herbivores, for example a snail, (prey), who in turn holds on to the string and passes it to the predator (or carnivore), the newt, who in turn passes it to the heron (top predator). The food chain is complete, with producers and consumers all ultimately getting their energy from the sun.

sun → plant → snail →newt →heron

Part 2 – Food Webs

When a number of different food chains have been discussed and worked out in this way, a food 'web' can be made, trying to link all the plants/animals of the habitat together. The 'sun' may need to hold on to more than one ball of wool or string for this. It will become obvious that the web of life is complicated and plants/animals are interdependent in many different ways. Make notes of all the chains and webs produced during the game.

When a web has been completed, imagine that one life form dies, due to some disease, human activity or the effects of climate change on the habitat. Pull it gently out of the web. All the plants/animals which depend for their energy on it will feel a tug on the string and will also have to 'die'. Try removing different life forms to see the effects. Finally, remove all the plants or insects to see the catastrophic effects this has on the whole eco-system. Discuss what this game teaches us about the implications for life in the habitat, sustainability, climate change and what we can all do to help habitats survive.

≈**Visit different habitats and make up food web games for each of them.** Design an indoor game which helps others understand how food webs and chains work.

Common carder bee feeding on creeping thistle

Frogspawn and water lily

7 What lives in, on and by the Tame Valley Wetlands?

(Supports English, Mathematics, Science, Art and Design and PE (Water safety) Primary National Curriculum)

Be safe near water

What you need:

Notebooks, pencils, water safety equipment, first aid kit

What to do:

Whenever you are walking or working near water, there are dangers. Talk about this and make a list together of any dangers you think there may be by the water. Before you go outside, think carefully about any safety measures you will need to take. For instance, what rules will you make, how will everyone need to behave, will you need to take any safety equipment, or does the weather mean you need different rules/equipment for different seasons?

Before you begin working by water, cover any scratches or cuts with plasters or wear plastic gloves. Because the water is not clean, there are bacteria in there which could cause diseases. If you cut yourself while working at the ponds, clean the wound well with fresh running water and cover with a sterile dressing.

What would you do if you or anyone else fell into the water? How do you use a lifebelt or throwing line? Do you know how to resuscitate someone who has stopped breathing? Learn how to use the equipment and some simple first aid and you may be able to help save a life in the future.

Discover a wetland habitat

What you need:

Binoculars, notebooks, sketchbooks, pencils, identification books and keys, cameras, pond-dipping equipment (nets, white trays or buckets, magnifying pots, hand lenses, microscopes)

What to do:

Wetlands are habitats for many species of birds, animals and plants, some of them large and others very tiny. Some spend all their lives in the water, others only for part of their life cycle. Investigate lakes, ponds or the river for any evidence of creatures and plants. Are any birds or other creatures on the water, what are they doing? Are they eating or using any of the plants in any way? Do they swim on top of the water, stand beside it, fly over or swim underneath it? Sketch them or take photographs.

Look for many different plants beside, floating on, or underneath the water. The yellow flag iris is happy at the edge (a 'marginal' plant), but other plants like pondweeds need to be totally submerged or floating on the surface.

Be very careful at the edge of the water as you use a net to find out what kind of invertebrates live in the water. Sweep the net slowly in different places, on the surface, just under the surface, or in the mud at the bottom. Empty the net carefully into white trays or buckets and look closely at your discoveries with hand lenses and microscopes. Record what you see with notes and sketches. Identify what you have found using keys and charts.

Work out a food chain or web for the creatures and plants that live in or on the water.

≈ **Watch Mayflies in your classroom and learn about their life cycle. 'Mayfly in the classroom'** is the Wild Trout Trust's education programme aimed at Y4-6. It connects children with their local river habitats and uses the lifecycle of Mayflies to teach them about the broader themes of biodiversity, ecology and the links between aquatic and terrestrial biodiversity. For more information on mayflies and the Mayfly in the Classroom project, go to www.wildtrout.org/content/mayfly-classroom

Minibeast hunting

8 How can we sort wildlife into groups?

(Supports English, Mathematics, Science and Computing Primary National Curriculum)

It would be almost impossible to find out about the life-forms we observe, unless there was a system of grouping things together. We'd have to read through a whole book to find out anything at all about an animal or plant we'd seen. An organised system of classification is essential to naturalists, so that it's simple for everyone to learn about wildlife habitats and the life-forms found there. You can have a go at making up your own system for recording what you've found.

What you need:
Computer (or paper, ruler and pencil), notes from your visit, identification charts/books

What to do:
Here's an easy way to start. First make a list of your discoveries and decide which columns they fit into. You can then easily sort them into many groups.

Make a table on paper or on a computer to include all the wildlife discoveries you've made in one of the habitats. Talk about the columns you have chosen and why you chose them.

Sort everything into groups using your table. How many different groups can you make?

In the table below, for example, you could decide to group together all the minibeasts that

- have 6 legs
- live in the water
- have 6 legs and live in the water
- have 6 legs, live in the water and eat other minibeasts

etc

Create your own table for your discoveries.

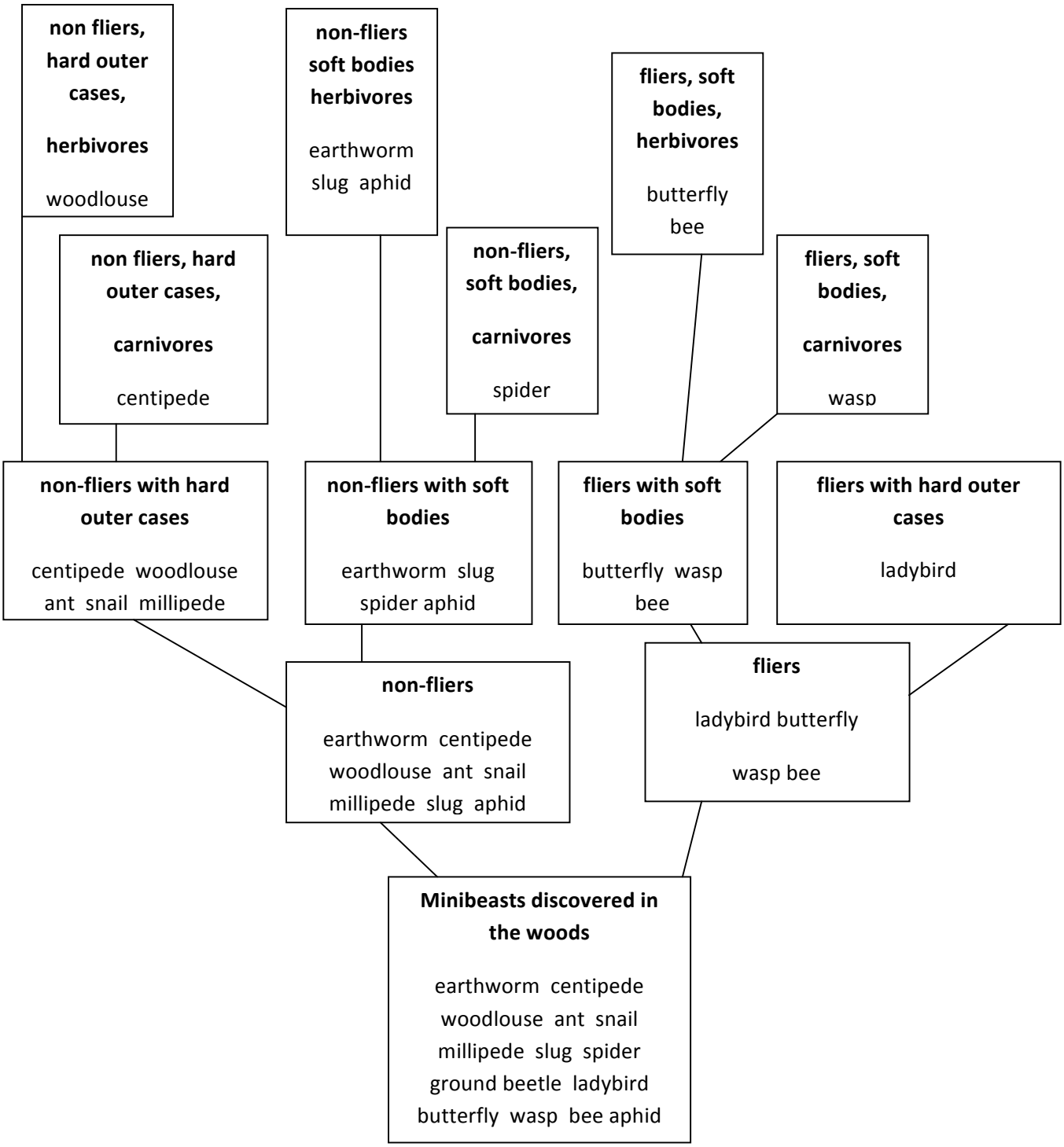
Seven spot ladybird on willow

A table of minibeasts we found in the pond

Type of minibeast	has no legs	has 6 legs	more than 6 legs	has a hard outer case	can fly	eats plants	eats other mini-beasts	lives on plants	lives on the surface	lives in the water	lives in the mud
snail	*			*		*		*		*	
pond skater		*		*	*		*		*		
dragonfly larva		*		*			*			*	
great diving beetle		*		*	*		*			*	

Another way of sorting wildlife into groups is by using a '**decision tree**'. Start at the bottom of the tree with all your discoveries. Then decide on one thing that splits your discoveries into just two groups, for example those that can fly and those that can't fly. Then split them into those with hard outer cases and those with soft bodies and split them again into those that eat plants (herbivores) and those that eat other minibeasts (carnivores). Carry on splitting up the groups until each box contains only one minibeast.

Look at identification charts for ideas of other groups to help sort your minibeasts.



≈**Make an identification chart for other classes to use.** Choose a habitat and use a decision tree method to help them identify what they've found there. Illustrate it with drawings of your own, or make an identification chart on the computer. You could design a large poster to show what can be found in your school grounds, laminate it and fix it outdoors for others to use.

A coot on its nest

9 Story - based outdoor activities for younger children

(Supports English, Science and Geography National Curriculum for KS1)

Many stories and picture books can be the inspiration for exploration of the outdoors and what can be found there. Children can be introduced to different places, habitats, animals, and plants near to home, while enjoying the outdoors and the weather in safety. Read the stories indoors before going outside, so the children become familiar with the words and ideas and know what to expect. Read them again while outdoors and act out the stories together. Here are a few ideas:

- *Baby Einstein, Animal Expedition* by Julie Aigner Clark and Nadeem Zaidi published by Scholastic. This book is a useful introduction to animals in their habitats and can lead to more local discoveries.
- *Brown Bear, Brown Bear, What Can You See? Panda Bear, Panda Bear, What Can You See? Polar Bear, Polar Bear, What Can You Hear?* all three books by Bill Martin Jnr. and Eric Carle, introduce children to wild places, animals and sounds around us.
- *We're Going on a Bear Hunt* by Michael Rosen and Helen Oxenbury. A journey through grass, mud, water, forest and weather. Make up your own version for your journey of discovery!
- *The Very Hungry Caterpillar* by Eric Carle. Looking at insects, butterflies, leaves and food chains.
- *The Very Busy Spider* by Eric Carle. Being outdoors in meadows, mud, forests, and looking for spiders and their webs.
- *Duckie Dives In* by Richard Waring and Guy Parker-Rees. All about getting dirty outdoors and having fun!
- *Aaaarrgghh, Spider!* by Lydia Monks. Enjoying spiders and their webs, looking for where they are and what they do.
- *The Gruffalo* by Julia Donaldson and Axel Scheffler. A whole series of stories, activity books and songs will encourage children to explore outdoors.

≈ **Write your own illustrated story about an animal and its habitat.** Act it out or read it to other classes in your school. Put the book in your school library for others to read.

10 Animal Homes Game

(Supports English, Science and Geography National Curriculum for KS1)

What you need:

Bag of toy animals that may live in a habitat, for example, in a woodland you may find hedgehogs, rabbits, foxes, badgers, mice, owls, bats etc. Each animal should have a label tied to it with details of where it lives and what it uses to make its home.

Natural 'found' materials (sticks, leaves, fur, feathers, grass, moss etc) Explain to the children why they must not take leaves off trees and plants, but just use what is on the ground.

What to do:

- Talk about why animals need 'homes'. Walk round the habitat looking for any animal homes you can find (nests, holes, under logs etc)
- Discuss which animals might live in the homes and how they made them.
- Divide the group into smaller groups with an adult and give each a furry animal.
- Discuss where each animal might live and what kind of home it would make. Talk about the materials it uses, why and how it uses them.
- Make homes for the animals, thinking about the location and materials used, (for waterproofing, warmth, comfort, safety)
- Take photographs of your animals in their homes to use back in school.
- Each group talks about their animal home, how they made it and what materials they used and why.

≈**Use your photographs to draw, collage or paint the animals in their habitats.** Make captions for the artwork, explaining where the animals live and how they make their homes.

11 How does the river get polluted and how can we clean dirty water?

(Supports Science and Mathematics Primary National Curriculum)

The challenge is to filter and clean a tank of 'dirty' water to remove solids and produce the 'cleanest' water. This activity is probably best done outdoors, as it can get very wet and messy!

What you need:

(for the whole class)

- large plastic tank for the water
- washing up liquid, soap powder, toothpaste, toilet roll, cotton buds, peanut butter, cornflakes, milk, margarine, cooking oil, soil, pieces of litter,
- timer

(in a box for each group of 4/5 pupils)

- 2 plastic measuring jugs, sieve, colander, cloths, cotton wool, sand, gravel, plastic bowl

What to do

1. Fill the plastic tank with clean water
2. Talk about how we all use water, the kinds of things we put down the drains in our homes and what's washed down the drains in the street.
3. Add things to the water in the tank as you discuss our uses of water, (the peanut butter represents what may be flushed down the toilet!) to create the dirty water.
4. Divide the class into groups of 4 or 5 pupils and tell them they are to be water treatment teams responsible for cleaning water from a river so that it could be piped to people's homes as fresh water.
5. Their task is to clean the water as much as possible, using only the equipment they are given. It will be tested by the scientist (teacher/helper) on its smell, clarity, colour, and the amount of water they have left after cleaning, to decide which team have done the best job.
6. Set a time deadline for the task.
7. Give each group the same amount of dirty water in a measuring jug and start the clock. The teams then work to filter out as much as possible from their water sample.
8. At the end of the time allowed, each team must present their sample of cleaned water to the scientist in their clean measuring jug for testing.

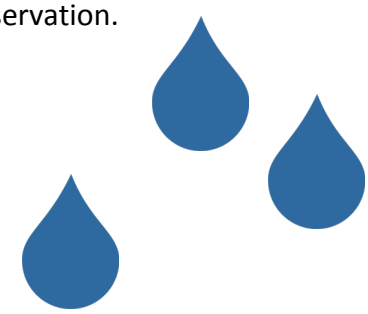
The scientist gives marks out of 10 (in discussion with the whole class) for each aspect of the cleaning for each sample, using the chart below, and the one with the highest score is the winner.

(No one must taste the water, as it will still contain some chemicals which cannot be filtered out. Explain to the class that chemicals and other processes clean water more thoroughly at water treatment works.)

Team	Clarity	Colour	Smell	Amount

10. Discuss what is still left in the water, why this is a problem for people and wildlife and what we can all do to help keep our water and rivers cleaner.

≈ **Go to Severn Trent Water's Learning Zone** (www.stwater.co.uk) to find out how they clean water and for much more information and activity ideas about the water cycle, water and sewage treatment, pollution and conservation.



12 How can we look after the Tame Valley Wetlands?

(Supports English and Science Primary National Curriculum)

Wetlands are wonderful places for both people and wildlife

Their conservation is vital for the protection of a vast number of species and for the enjoyment of future generations. They also play a significant role in helping to reduce the impacts of climate change and flooding.

What you need:

- copies of 'A Countryside Code' from the information pages in this pack
- paper, pencils
- felt tips, crayons or paints and brushes
- computer

What to do:

- Read all the information together and make notes about the most important points.
- Write 'A Tame Valley Wetlands Landscape Code' to show how people can look after this valuable landscape when they're living in/working in or visiting the area.
- Design and create an illustrated leaflet of your Code which you could give to people in school or put online on your school website.

≈ Go to www.warwickshirewildlifetrust.org.uk/love-your-river and download the 'Love Your River 10 - Point Plan'. Could you help your Wildlife Trust with a project in your area? How about a stream clean-up, or a new pond in your school grounds? Contact Warwickshire (www.warwickshirewildlifetrust.org.uk) or Staffordshire Wildlife Trust (www.staffs-wildlife.org.uk).

Canal & River Trust
Keeping people, nature & history connected

rspb giving nature a home

The Canal and River Trust (volunteer@canalrivertrust.org.uk) or RSPB (middletonlakes@rspb.org.uk) also welcome volunteers to help with projects in your area. Contact them to discover how you could help improve the Tame Valley Wetlands Landscape for future generations.

13 Glossary

(Supports English Language and Literacy Primary National Curriculum)

Word(s)	Definition
absorb	soak up
agriculture	farming the land and rearing animals
algae	single-celled green plants growing in water
almshouses	houses built by charities for the poor
Anglo-Saxon	tribes of English people before the Norman conquest
aquatic	living in water
arboretum	a garden of trees
armoury	place where weapons are kept
atlas	book of maps or charts
bacteria	single-celled micro-organisms which can cause disease
bailey	outer wall or courtyard of a castle
biodiversity	variety of plant and animal life
botanist	someone who studies plants
bridleway	rough path or road suitable for walkers and horses
canal (isation)	inland artificial waterway constructed for transportation
carnivore	animal that eats meat
catchment area	area from which rainfall flows into a river
charter	rights granted by the sovereign for markets etc.
chemicals	a substance, especially one that is artificially prepared
clarity	transparency or clearness
classification	arrangement in groups or categories
climate change	changes in the average weather patterns for a region
clinometer	tool for measuring slopes or the height of trees
coalfield	an area where rocks contain coal
colliery	coalmine and the buildings attached
compass	instrument to show magnetic north

compensation	money given to make up for a loss of some kind
compost	decayed vegetable matter produced for growing plants
confluence	place where two rivers meet
conservation	preservation of the natural environment
consumer	an animal or plant that eats things produced by other organisms
culvert	underground channel carrying water
currency	coins exchanged to buy goods or services
degraded	made lower in quality, spoiled
detergent	water-soluble cleaning agents used to remove dirt
Domesday Book	record of all lands of England made by William I in 1086
drover	someone who drove herds of animals to market
dungeon	underground cell for prisoners
ecology	study of relationships of organisms to each other and their environment
ecosystem	community of interacting organisms and their environment
engineered	constructed to a plan
environment	physical conditions on the earth or part of it
equerry	officer of the royal household who attends the royal family
estate	large area of land usually with a large house
estuary	wide tidal mouth of a river
evolution	gradual development of life forms
extraction	removal (of sand etc) from the ground
floodplain	area of land beside a river where it can naturally flood
fly fishing	fishing, usually for trout or salmon, using an artificial fly
food chain	series of organisms which depend on each other for food
food web	community of organisms dependent on each other for food
ford	crossing place on a river where the water is shallow
glacier	slow moving ‘river’ of ice formed from compacted snow
glider	aircraft that flies without an engine
glossary	short dictionary of words found in a specific text
gravel	mixture of coarse sand and small pebbles worn by water

green roof	roof covered with grass or other plants
habitat	natural home of an organism
hazard	a danger or risk
headgear	parts of a mineshaft above the ground
herbivore	animal that eats only plants
heritage	historic buildings or countryside deserving protection
hoard	ancient store of treasure
industrial revolution	rapid development of British industries in 18th and 19th centuries
interdependent	depending on each other
invertebrate	animal without a backbone
Latin	language of the Romans, used to name organisms
lawsuit	process of making a claim in a court of law
lichen	a fungus and an alga growing together
manifesto	public declaration of a policy or aims before an election
manor	area of land owned by a lord
marginal	growing on the edge of water
marsh	land flooded in wet weather and usually watery
meadow	well-watered land near a river
meander	winding course of a river
megawatt	power equal to 1000 Kilowatts
meltwater	water melting from snow and ice, usually from a glacier
migration	animals changing home according to the seasons
mint	place where coins are made
moat	defensive ditch round a castle, usually filled with water
motte	mound made as the site of a castle
naturalist	someone who studies nature
nature reserve	land managed to protect nature
nutrients	substance that provides food for organisms
Ordnance Survey	official UK surveying organisation providing maps
ornithology	study of birds

packhorse bridge	small bridge to allow horses carrying loads to cross a river
pasture	grass land for grazing animals
peat	soil-like earth made from partly decomposed plants
ph level	measure of acidity or alkalinity of a solution
phosphate	chemical especially used as a fertilizer
pill box	small, rounded, concrete building used to defend land
pollution	contamination of the environment
pooter	instrument used to collect and examine small creatures
porous	material that allows water to soak through
predator	animal that hunts or kills other animals
prey	animals hunted or killed by other animals
producer	an organism that makes something used by another
purification	to clean something of pollution or other elements
quadrat	square marked out for study
quarry	place where stone or other resources are extracted
reedbed	area where many reeds grow together in water
reservoir	construction to allow water to be collected for use
resources	a stock or supply of something that can be used
resuscitate	revive someone when they are unconscious
right of way	path where people are allowed to travel across land
risk	possibility of danger
river basin	area drained by a river and its tributaries
scrape	shallow depression dug to create wetland area for wildlife
scrub(land)	land with shrubby plants or small trees
sewage	waste water containing faeces (poo)
sewer	underground pipe to drain waste water and sewage
source	spring from where a stream or river first appears
species	a group of organisms with common features
SSSI	Site of Special Scientific Interest, protected by law
submerged	underwater

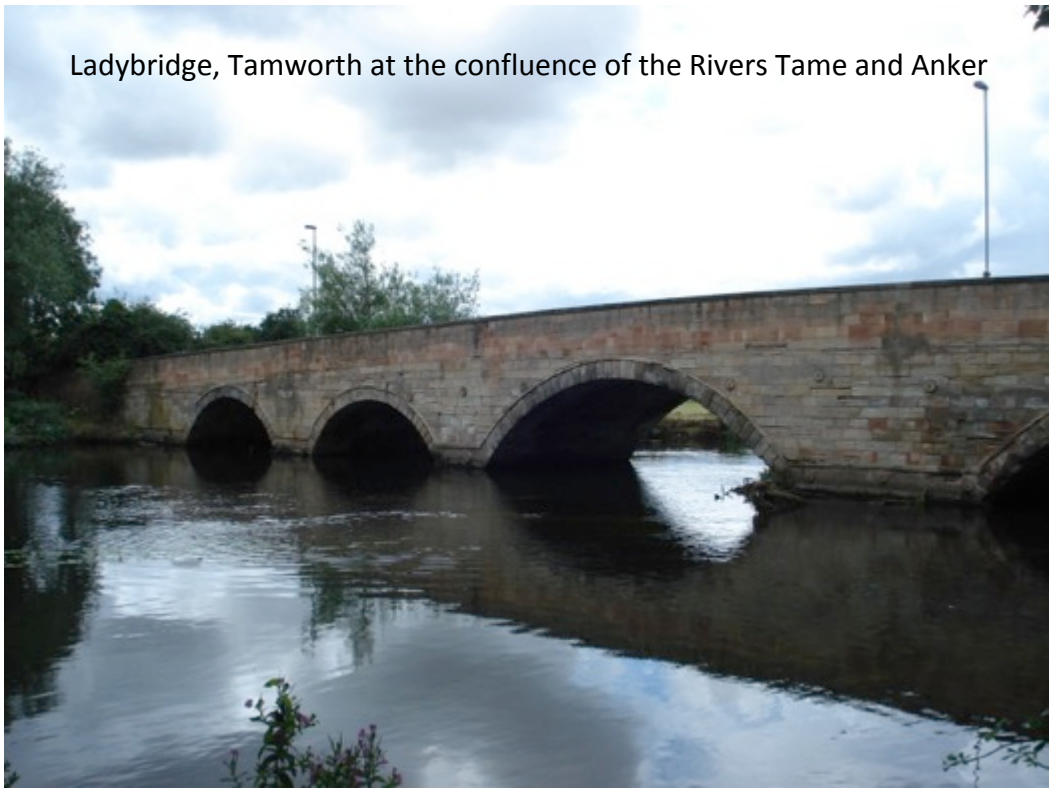
sustainable	conservation of natural resources, maintaining ecological balance
tank trap	Ditches or obstacles constructed to prevent access by tanks
tannery	factory where leather is produced from animal hides
terrestrial	on or in the ground
tributary	stream or river which flows into another larger one
upstream	nearer to the source of the river
urban	in a town or city
viaduct	Long bridge carrying a road or railway over a river or valley
volunteer	someone who offers to work or help without being paid
wader	bird which feeds by wading in shallow water
weir	dam across a river to raise the water level upstream
welfare	well-being, health and happiness
wetlands	pools, marshes, lakes or other land saturated with water
wildfowl	birds such as ducks, which live on water and are shot for food

14 Photo Gallery

(Supports English, Computing, History, Geography , Art/ Design, Music Primary National Curriculum)

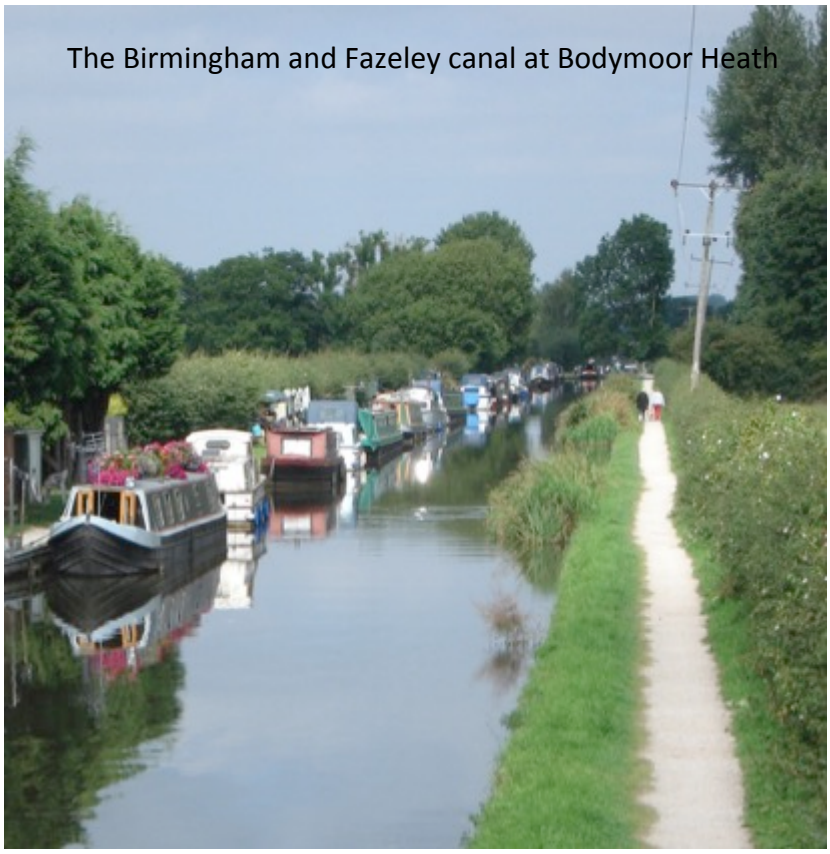
Lea Marston Lakes © 2013 Steven Cheshire

Ladybridge, Tamworth at the confluence of the Rivers Tame and Anker



©M Morland 2016

Pill Box in Broad Meadow, Tamworth © 2013 Steven Cheshire



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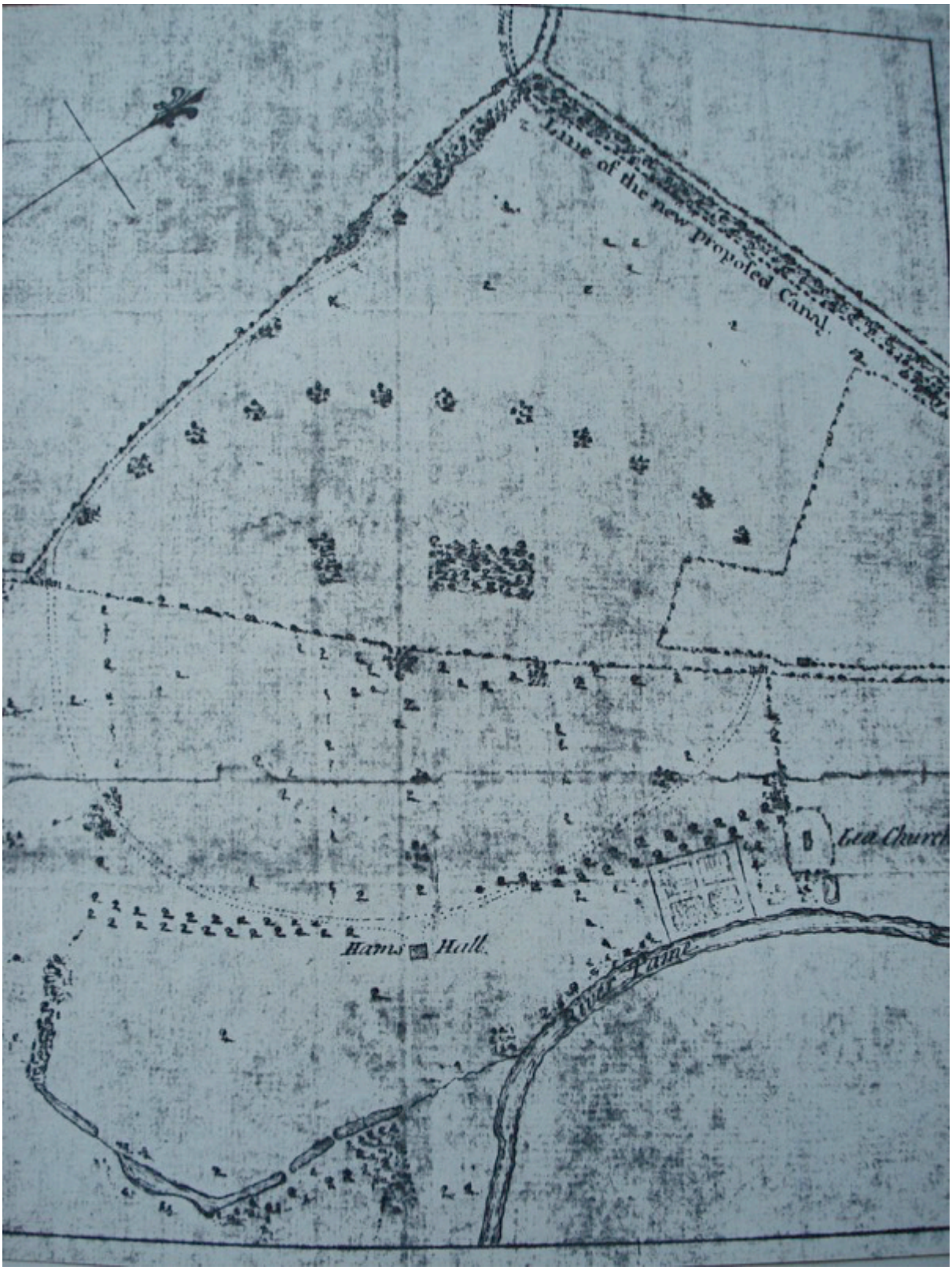
View across the Tame valley from Tamworth Castle

Model of the Saxon watermill at Tamworth Castle

Coleshill High Street 1861, painted by C R Stanley (Hams Hall archive)

Hams Hall in 1861, painted by C R Stanley (Hams Hall archive)

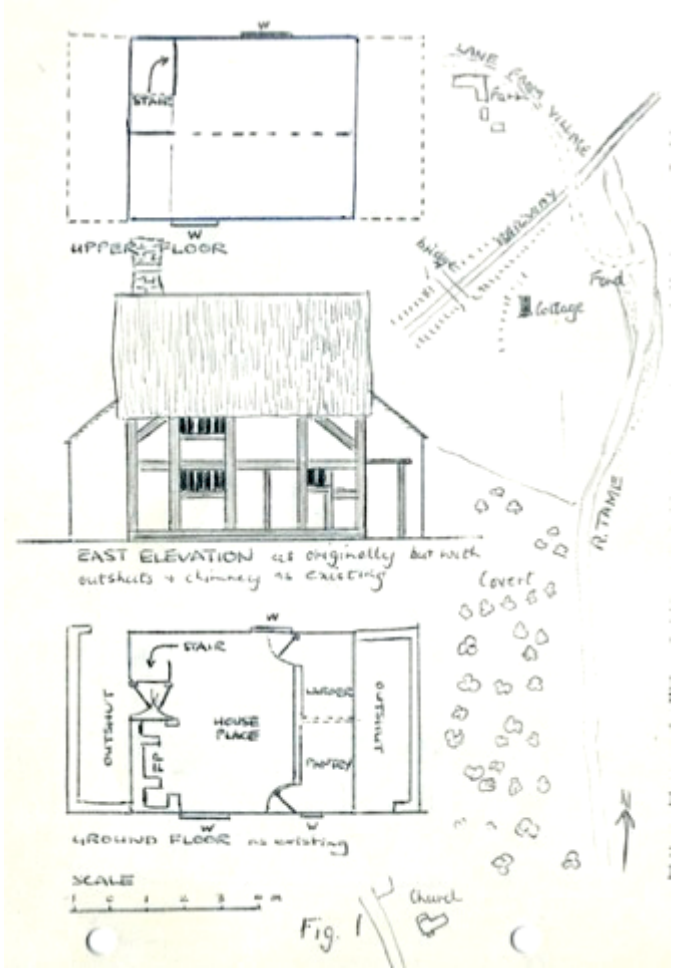
Hams Hall Power Station in the 1960s. (Hams Hall archive)



Map showing the proposed route of the Birmingham and Fazeley canal (opened 1789) Hams Hall, its kitchen garden and Lea Church can be seen by the River Tame. (Hams Hall archive)

Thatching and making walls from wattle and daub during re-building at Lea Ford Cottage. The materials for building were readily available by the River Tame in medieval times: oak for the beams; straw and bramble for the roof; hazel, clay, straw and cow dung for the walls

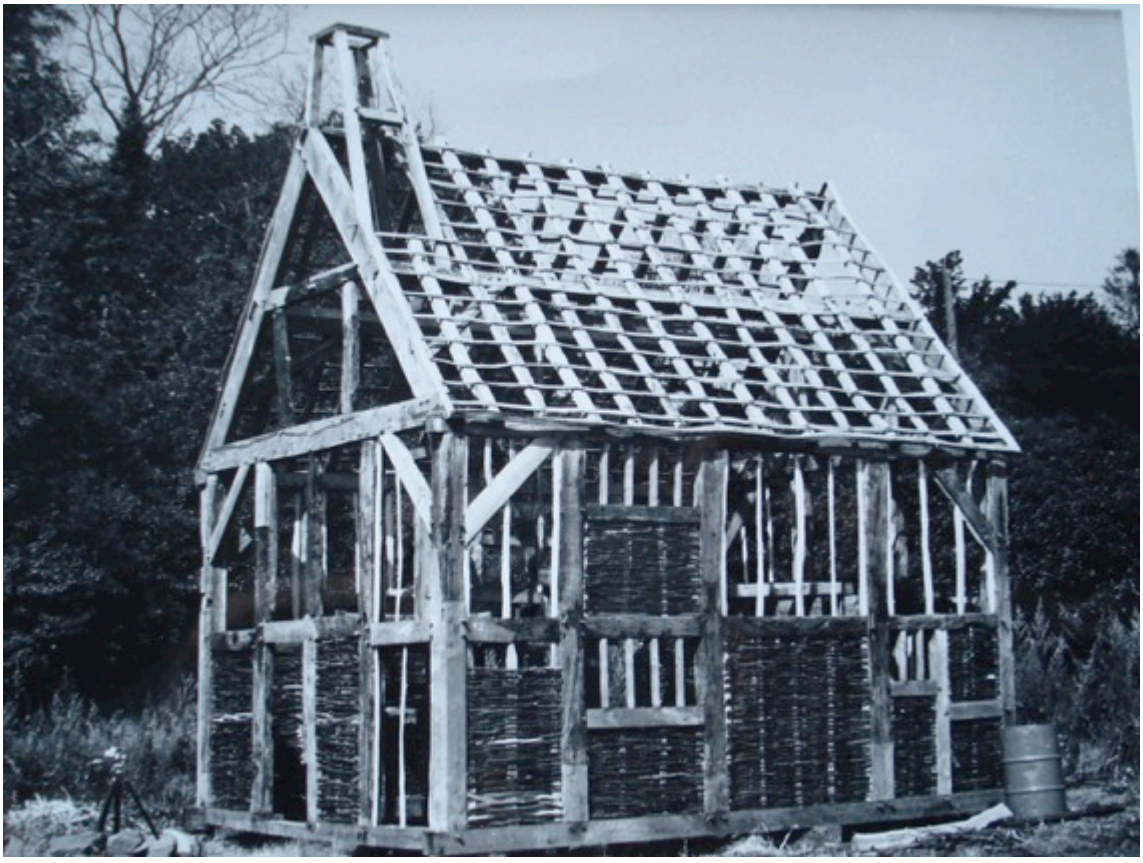
(Hams Hall archive)



Plan showing the original site of Lea Ford Cottage by the ancient ford across the River Tame

(Thanks to Martin Wheeler)

The medieval Lea Ford Cottage on its original site by the River Tame and during re-building at Hams Hall in 1976-7 (Hams Hall archive photos)



The ‘herringbone’ wall at Tamworth Castle © M Morland 2016

Tamworth Castle and gardens overlooking the River Tame ©M Morland 2016

The chancel of St Editha's Parish Church, Tamworth showing an impressive Norman arch and 'dogtooth' stone carving. ©M Morland 2016

Acknowledgements

In researching and writing this educational pack, I have been assisted by many individuals and would like to thank them for their kindness, generosity, time and the valuable information they provided.

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Many thanks to anyone else who has helped in the production of this pack in any way.

Tame
Valley
Wetlands