

Lisa Lock's Portfolio

Resources, interpretation, community projects,
design, and artwork.

2003 -2023

DBS and First aid training

Document Records - Personal In | x

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HAVERING - PRODUCTION INSTANCE

Haverinq

DBS
Lisa Lock

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*Approved for the purposes of Health and
Safety (First Aid) Regulations 1981*

Certificate Number

CT18-12-2185

This is to certify that

Lisa Campbell-Bannerman

*Has successfully completed and passed a
First Aid at Work Course*

*at
River Chambers, Romford*

*on
12 December 2018*

*This certificate is valid for 3 years until
11 December 2021*

Signed

Courses provided in association with:

Crusader
Training Services

FAIB
The First Aid Industry Body

Registration No. 036/15 (657)

www.crusader-training.co.uk

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School outdoor interpretation boards

Trees for Cities
Project
2014

St Pauls School & Trees for cities
Edible playground
©Lisa Campbell-Bannerman

Bees

Did you know?
Bees cannot see red but they can see UV colours!

4. The Bees goes inside a new flower to collect more tasty nectar.
5. The pollen rubs off the bee and on to the special pollen collectors inside the flower. The Plant uses Pollen to grow seeds and fruits and vegetables

6. The Bees use the nectar in their hives to feed the baby bees!

The Pollination Cycle
Bees and Plants need each other to survive!

1. Queen lays egg in cell
2. Worker bee feeds larva
3. Pupa in sealed cell
4. Adult bee leaves cell to get nectar

In the Hive

Bees use nectar to make food (honey) in their hive, and store it in Honeycomb cells.

Q. What shape is repeated in the pattern of the honeycomb?

Square - Triangle - Star - Pentagon - Hexagon

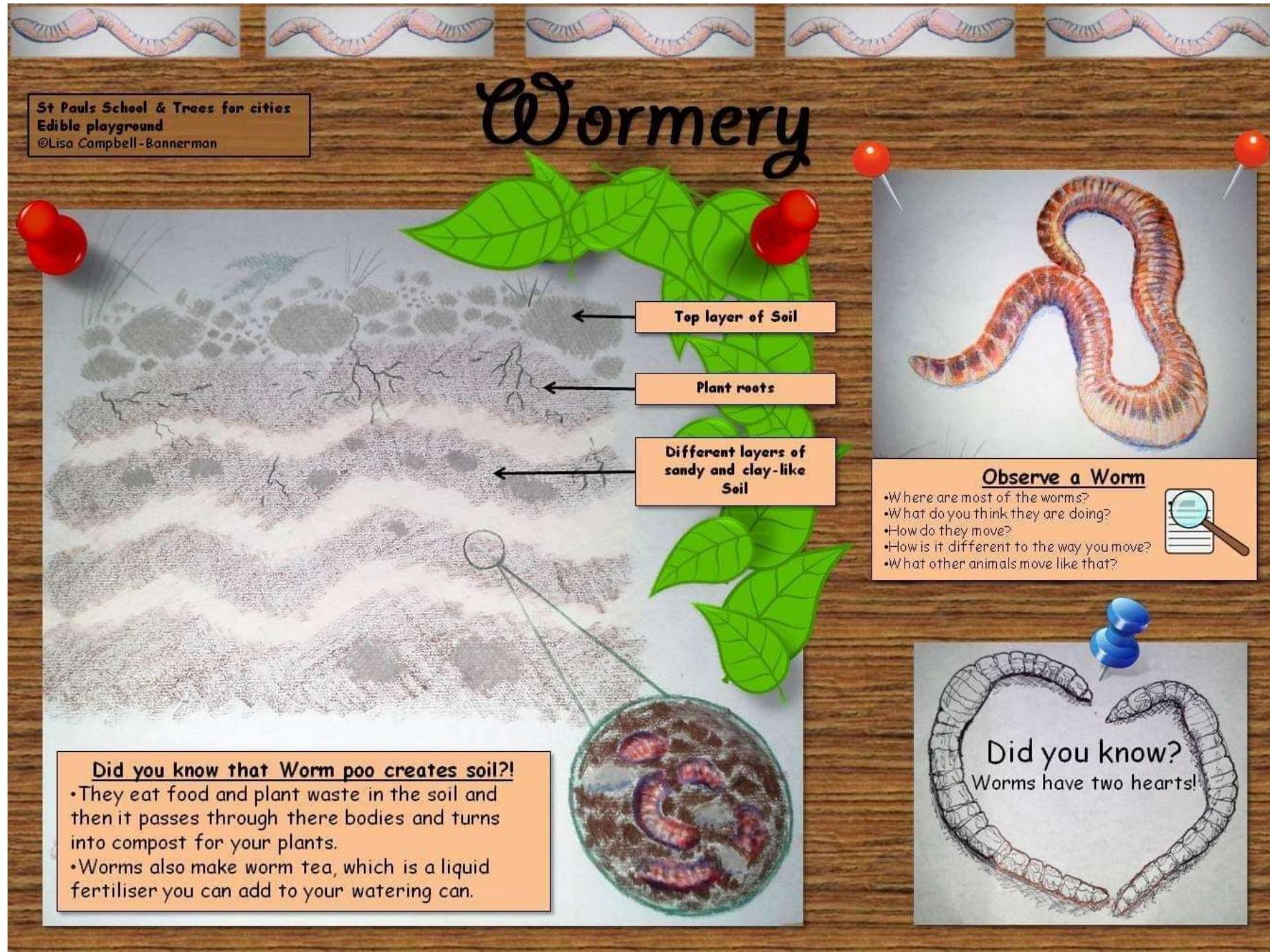
1. Bees are attracted to the Bright colours on some flowers and the tasty nectar inside the flower.
2. They get covered in the flowers yellow pollen when they collect the nectar.

3. The Bees travel from Flower to Flower, carrying the yellow pollen on their hairy bodies and their legs.



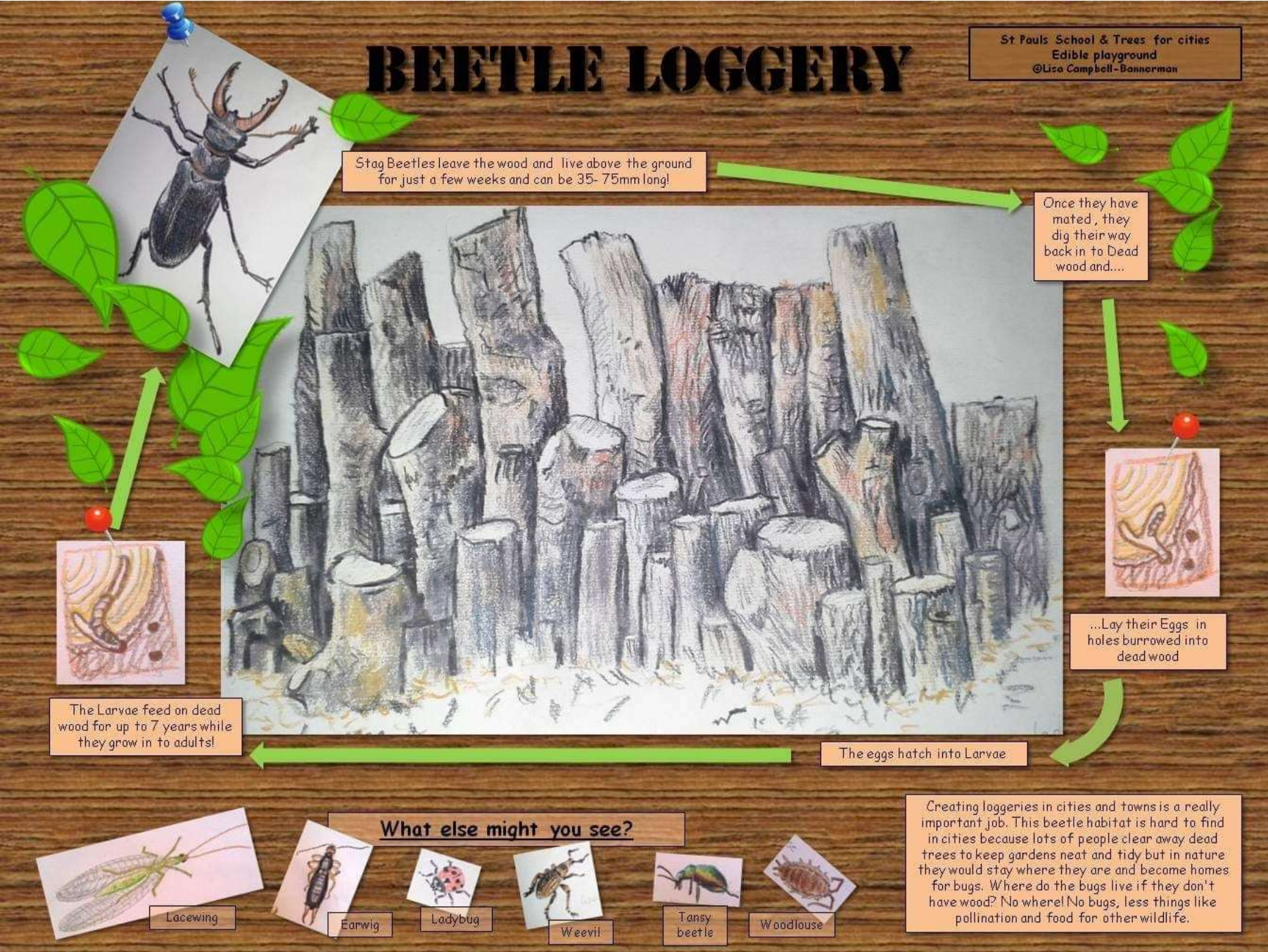
School outdoor interpretation boards

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Compost

What's inside the compost bin?

"Greens"
50%
Rot quickly and provide nitrogen and moisture.

Animal Manure with straw.
Fresh Grass, Plants and Weeds, flowers, leaves and stalks.
Some fruit and veg
Coffee and Tea bags.
Hay

"Browns"
50%
Rot slowly and provide fibre, carbon, and allow air pockets to form

Autumn leaves, Cork, Christmas tree and Tomato plants, Wood ash
Cardboard, Kitchen Paper, Egg boxes and shells
Hair, Vacuum cleaner dust
Nuts, Sweet corn
Cotton and wool

Keep out!
Bones, Bread, Coal ash, Olive Oil, Meat and fish scraps, Dog food, used tissues, Dairy products, Nappies, Cat Litter and Dog poo, Cigarettes,
Plastic bags, Cling film, Crisp packets, Drink cartons, cans and bottles

Animals find shelter in the Compost

I am Happy and Safe here.

The Compost Cycle

Animals and bacteria eat and live in the green and brown waste, it is gradually chopped up and mixed.

Yam Yam!

That was tasty!

other chemical reactions and heat help to break the waste down into a nutritious 'soup' called compost!

I will grow on the Compost...

...Then I will create New Compost!

The tasty (for worms and plants only!) Compost feeds new plants & vegetables


What animals might you see Inside a compost bin?

Worms, Millipede, Slug, snail, Flies, Toads, Mice

Activity:

Use a magnifying glass to look through the top layers of the compost, what Animals can you find?


Recycle if possible instead!



School outdoor interpretation boards


Trees for Cities
Project
2014

Thyme




Appearance: thin woody stem and very small, slightly curved, leaves
Fragrance: Savoury, intensely pungent
Use: Soups, Sauces, Chicken, tomatoes

Mint



Appearance: Serrated edges, veined leaves
Fragrance: Fresh, clean, sweet, strong menthol
Use: Deserts, Lamb meat, Tea


Marjoram and oregano



Both are similar! marjoram is milder
Appearance: soft green spade like leaf on a short narrow stem
Fragrance: Fresh and clean. Savoury, pungent.
Use: Pizza, Pasta, Fresh salad, Lamb.

St Pauls School & Trees for cities
Edible playground
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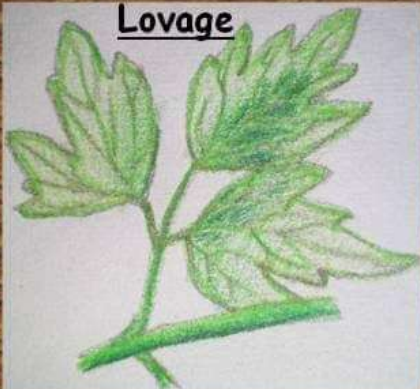
Rosemary



Appearance: Green/brown soft needle
Fragrance: Woody, savoury
Use: Roast potatoes, Chicken, and vegetables


Herbs

Lovage




Appearance: delicate branched leaves and stems
Fragrance: Celery
Use: soups, or pork and chicken

Chive




Appearance: Thin soft javelin shapes, purple flower
Fragrance: Grass and onions
Use: Omelettes, Eggs, Garnish

Sage




Appearance: Furry white stem, long, bumpy leaves
Fragrance: Strong
Use: Most meat, Pasta, Gnocchi, butter

Lemon Balm



Appearance: big lumpy leaves
Fragrance: Lemony
Use: fish, poultry, vegetables, salads, stuffing, tea.

Fennel

























































Appearance: White bulbous root, long stem, fine wiry leaves
Fragrance: aniseed and celery
Use: Fish, soup, salad

Activity and fact sheets

Woodland tree species
identification

Langtons
Gardens and
Fielders
Field Project
2018-2023

Fielders Field Woodland, Some Trees, Plants and Shrubs

| | | | | | | | | |
|---|--|--|---|--|--|---|---|--|
|  <p>Buddleia <i>Buddleja davidii</i></p>  <p>Simple shape</p> |  <p>Cherry <i>Prunus spp</i></p>  <p>Simple shape</p> |  <p>Domestic plum <i>Prunus domestica</i></p>  <p>Simple shape</p> |  <p>Willow <i>Salix spp.</i></p>  <p>Simple shape</p> |  <p>Holm oak <i>Quercus ilex</i></p>  <p>Simple shape</p> |  <p>Oak <i>Quercus</i></p>  <p>Lobed, simple shape</p> |  <p>Hawthorn <i>Crataegus monogyna</i> I'm spiky!</p>  <p>Lobed, serrated, simple shape</p> |  <p>Sweet chestnut <i>Castanea sativa</i></p>  <p>Serrated, simple shape</p> |  <p>Horse chestnut <i>Aesculus hippocastanum</i></p>  <p>Serrated, palmate compound shape</p> |
|  <p>Norway Maple <i>Acer platanoides</i></p>  <p>Lobate winged, lobed, simple shape</p> |  <p>Field maple <i>Acer campestre</i></p>  <p>Lobate winged, lobed, simple shape</p> |  <p>Sycamore acer <i>pseudoplatanus</i></p>  <p>Palmate winged, lobed, simple shape</p> |  <p>Lime <i>Tilia spp.</i></p>  <p>Serrated, simple shape</p> |  <p>Yew <i>Taxus baccata</i></p>  <p>Flat long simple leaf, alternate arrangement</p> |  <p>Elder <i>Sambucus nigra</i></p>  <p>Pinnately compound, serrated</p> |  <p>False acacia <i>Robinia pseudoacacia</i></p>  <p>Pinnately compound</p> |  <p>Common ash <i>Fraxinus Excelsior</i></p>  <p>Pinnately compound, serrated</p> |  <p>Rowan (mountain ash) <i>Sorbus</i></p>  <p>Pinnately compound, serrated</p> |
|  <p>Holly <i>Ilex Aquifolium</i> I'm spiky!</p>  <p>Spiky, simple shape</p> |  <p>Fern <i>Dyopteris filix-mas</i></p>  <p>Bipinnate compound</p> |  <p>Fern <i>Polypody Polypodium spp.</i></p>  <p>Pinnate</p> |  <p>Bramble <i>Rubus fruticosus</i> I'm spiky!</p>  <p>Serrated, palmate compound shape</p> |  <p>Hellebore <i>Helleborus</i> Do not touch.</p>  <p>Palmate compound</p> |  <p>Ivy <i>Hedera helix</i></p>  <p>Adult (10+ years) = simple shape, young = lobed</p> |  <p>Cyclamen <i>Cyclamen</i></p>  <p>Simple heart shape</p> |  <p>Nettle <i>Urtica dioica</i> I sting!</p>  <p>Serrated, simple shape</p> |  <p>Lords and ladies <i>Arum maculatum</i>, Do not touch.</p>  <p>Simple ovate shape</p> |

Activity and fact sheets

Advanced adult leaf identification sheet and child's key species wildlife bingo

Langtons Gardens and Fielders Field Wildlife Bingo!

What can you find here?

Look up in the sky ...



Kestrel *Falco tinnunculus*



Peregrine falcon *Falco peregrinus*



short-eared owl *Asio flammeus*



Swallow *Hirundinidae*



Noctule bat *Nyctalus noctula*

Look up in the tree canopy ...



Common pipistrelle *Pipistrellus pipistrellus*



Green woodpecker *Picus viridis*



Great spotted woodpecker *Dendrocopos major*



Ring-necked parakeet *Psittacula krameri*



Magpies *Pica pica*



Carrion crow *Corvus corone*



Wood pigeon *Columba palumbus*



Mistle thrush *Turdus viscivorus*



Nuthatch *Sittidae*



Jay *Garrulus glandarius*



Oak *Quercus*



Holm oak *Quercus ilex*



Willow *Salix* spp.



Lime *Tilia* spp.



Cherry *Prunus* spp.

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Leaf Identification: some key definitions.

Reticulate

Longitudinal

Cross venulate

Dichotomous

Arcuate

Parallel

Rotate

Pinnate

Palmate

Sessile: no Petiole (stalk)

Clipping base

Lawson Cypress: Needle-like simple leaf, no petiole (stalk), alternate arrangement



Pinnate veined, simple shape



Lobed, simple shape



Palmate veined, lobed, & doubly serrated simple shape



Serrated, simple shape

Simple leaf shape: one leaf attached to a stem, with or without a stalk (petiole)

Normally deciduous trees drop leaves in autumn, and evergreen trees drop their long lasting waxy leaves year round.

Horse chestnut: serrated, palmate compound shape

Creeping buttercup: ternate/ trifoliate, lobed, serrated



Pinnately compound



Bipinnate compound, or double-compound



Palmate compound, non-peltate: leaflets go round a part of the stalk (petiole)



Palmate compound, peltate: leaflets go round the whole stalk (petiole)



Terminal petiolule



Rachis (midrib)



Petiole (stalk)



Stipule or bud



Leaf (Pinna)



Veins



Pinnula



Stem

Palmately ternate or trifoliate: three leaflets one stalk (petiole)

Pinnately ternate or trifoliate: three leaflets, one long extra stalk

Compound leaf shape: many leaflets (pinnae) on a stalk.

Activity and fact sheets

Forest School

Langtons
Gardens and
Fielders
Field Project
2018-2023

Langtons Gardens Forest School Activities



Den making: work in a team, you have 30 mins to make a den anywhere in the woodland or in your garden, using only rope and a sheet or tarpaulin, and whatever you find in the woodland!



Mud kitchen: Use old kitchen equipment to make whatever you want! Remember to dig holes for mud only in muddy areas, not the lawn.



Water play: Use pipes, tubes, buckets, pitchers, and bowls to make a waterfall. Wear a waterproof coat!



Build a Mini fairy garden: Make your own mini garden within a circle of rope anywhere in the woodland safe area. Use material you find in the wood.



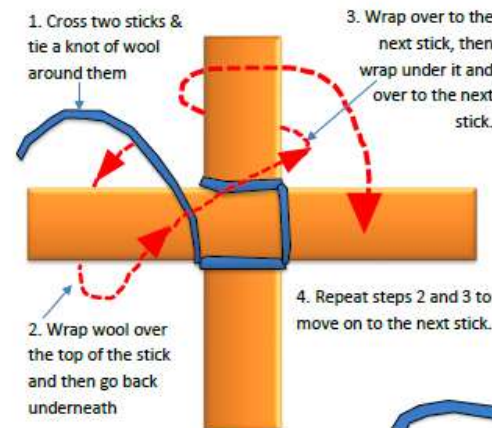
Knot making or Gods eye weave: Use rope (or wool for god's eye or wrapping sticks). Follow instructions on next sheets.

Remember to leave no trace: Tidy away after you. Avoid picking or breaking living branches, leaves or flowers, and avoid touching any berries except blackberries and do not touch fungus. Look out for warnings on the 'wildlife bingo' activity sheet for plants that sting and scratch. If in doubt, do not touch!

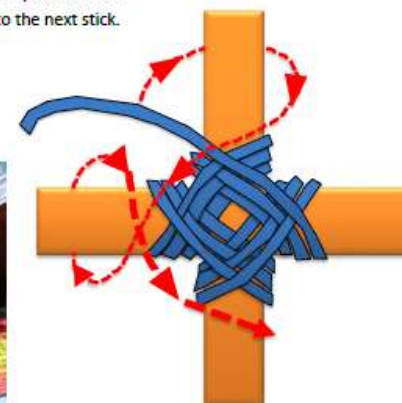


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Gods eye weave:



The hardest bit is starting it off as it can look messy and be unsteady- but don't let go of the wool thread, keep going and it will get stronger and neater! Always wrap the wool around one stick at a time, and always follow the same pattern, going over the top of the stick first.



When finished, tie it off with a knot, and using the wool make a loop for hanging it.

Alternatively, try wrapping sticks to make decorations! Start with knotting the wool to a stick and wrapping it around. Add more colours or wrap over the top with a different colour. End with a knot like a clove hitch.



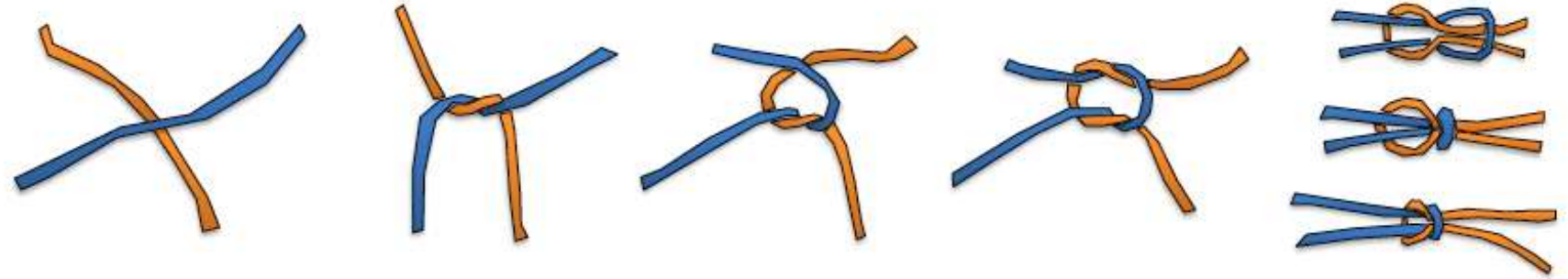
Activity and fact sheets

Basic Knots

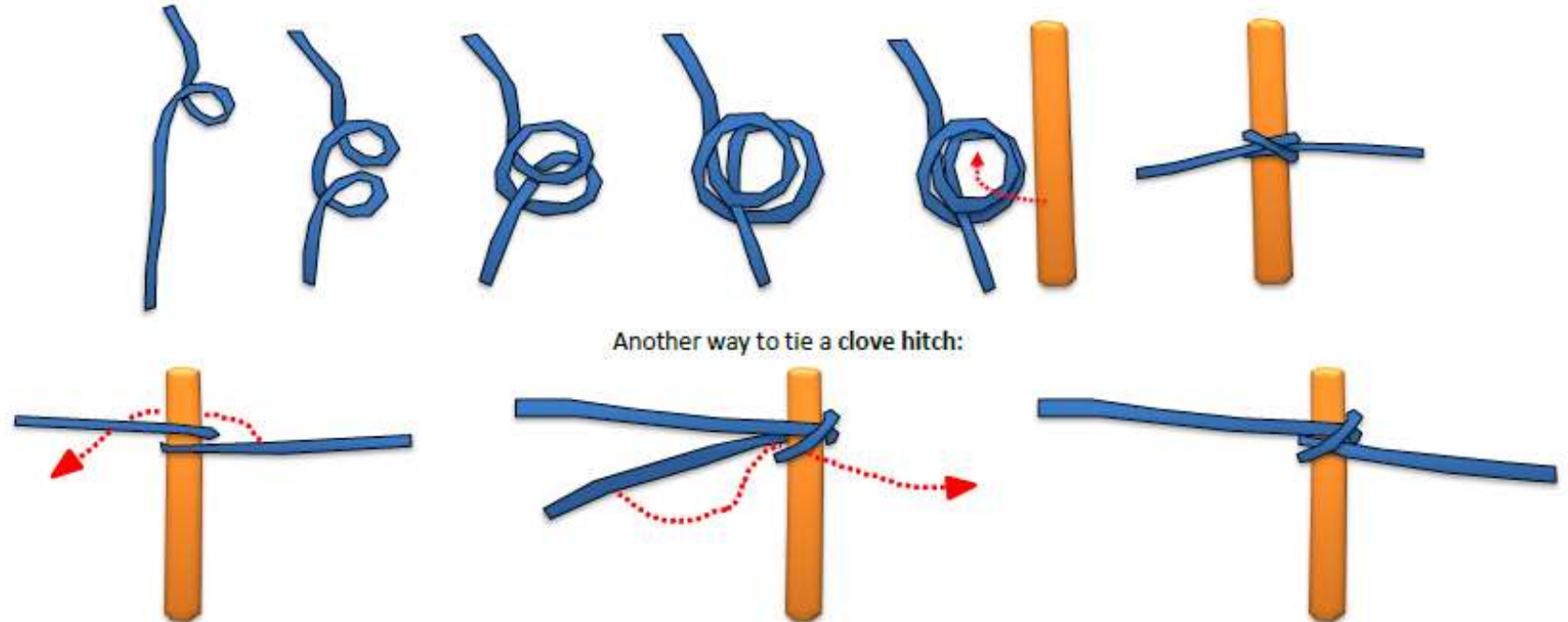
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Basic knots

Reef knot: This knot is for tying two ends of a rope together, for example to give you a longer length of rope.



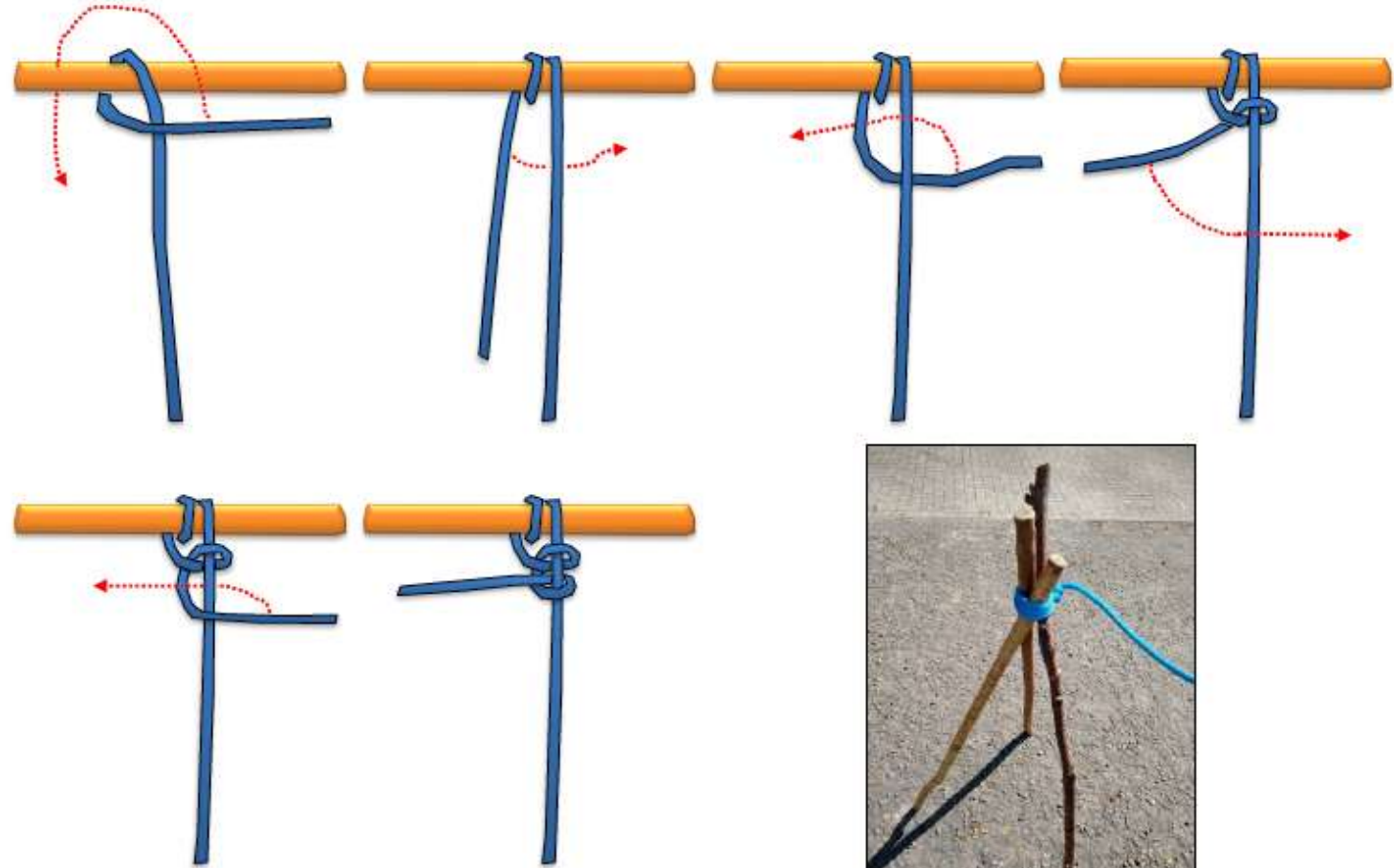
Clove hitch: Used to attach a rope to a fixed post to make a washing line, or simply to attach some string to a stick for making mobiles, story sticks, and fishing rods.



Activity and fact sheets

Basic Knots

Round turn and two half hitches: used to attach a rope to trees for creating a tarpaulin shelter, or a slackline, as it will take a lot of strain and it is easy to untie.



Binding a tripod: Lashing three sticks together at the top using a round turn and two half hitches knot will create a tripod or a stable base for a wigwam.

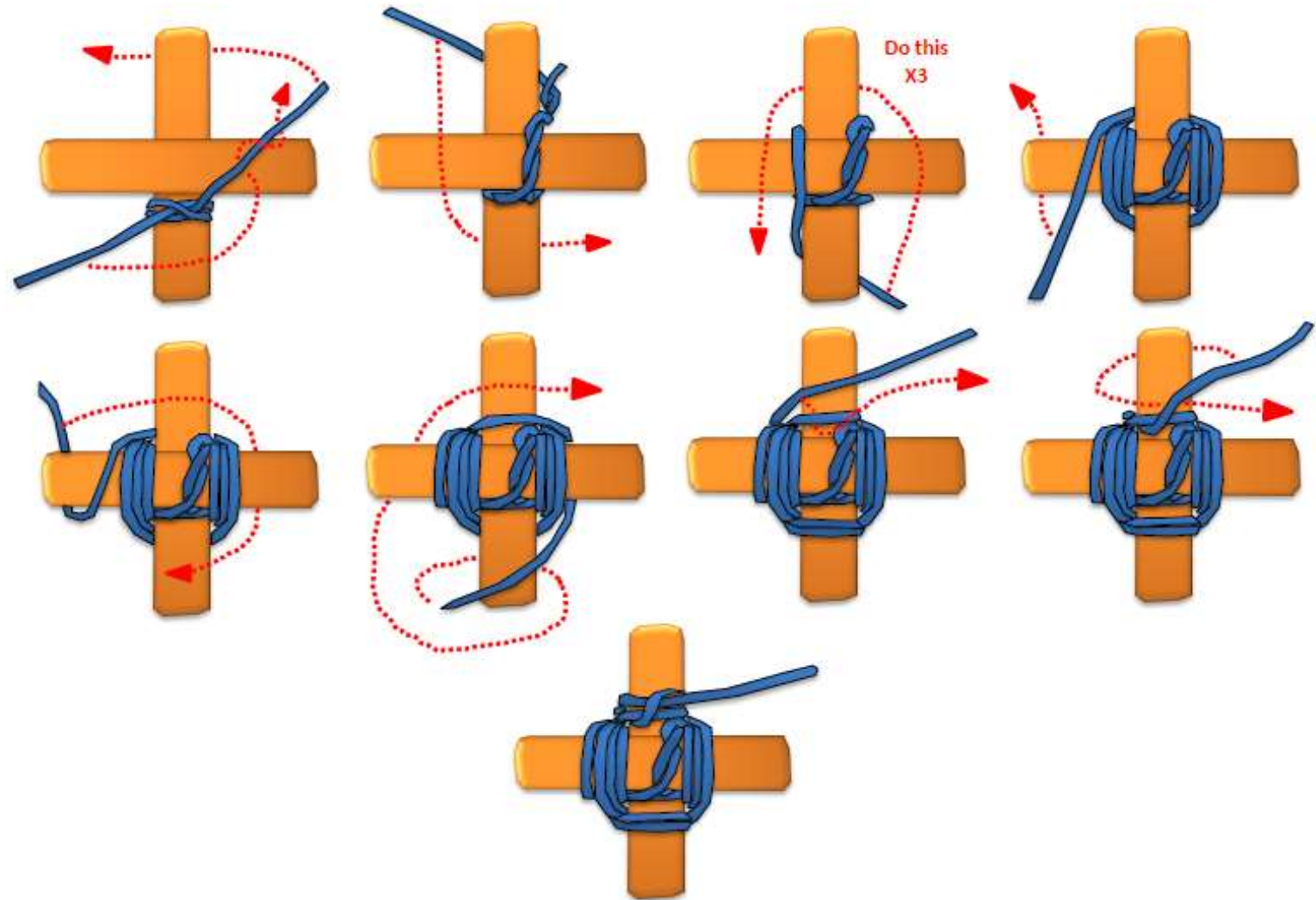
Activity and fact sheets

Advanced Knots

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Advanced knots:

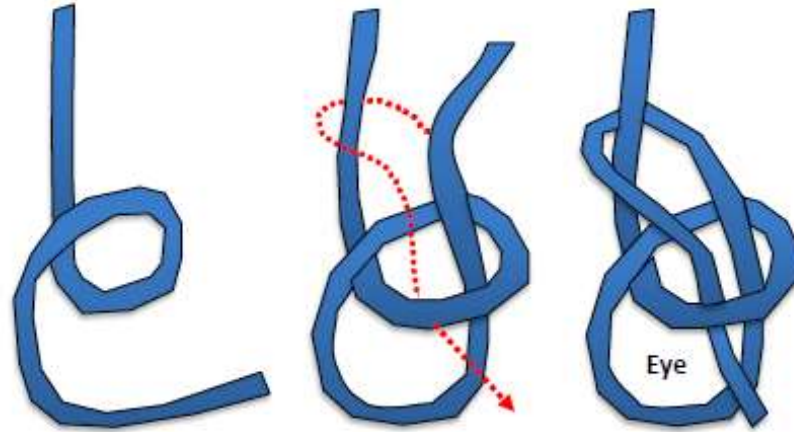
Square lashing: This is for attaching sticks together to make mobiles, swords, frames, stars and so on. Start with a clove hitch.



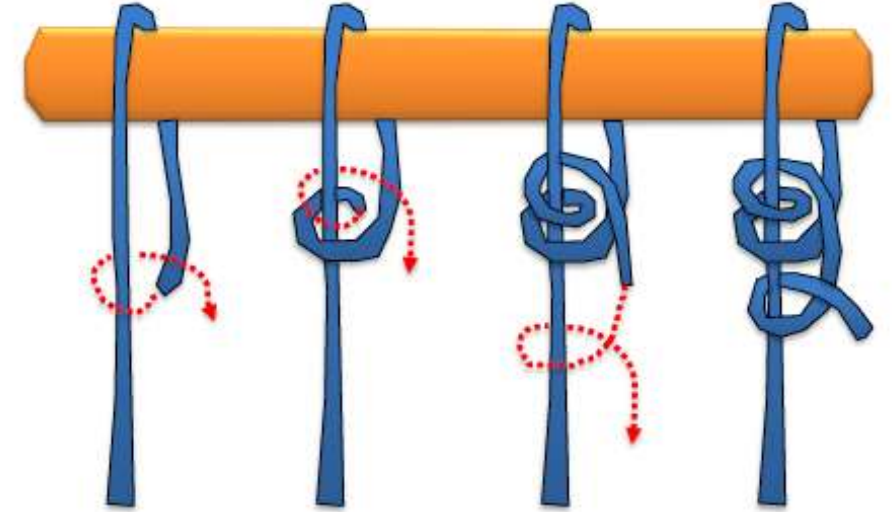
Activity and fact sheets

Advanced Knots

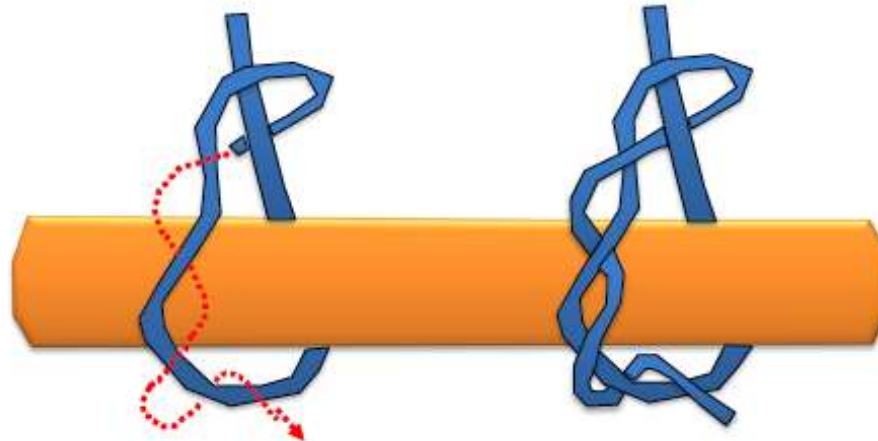
Bowline: used to make a fixed loop (also called an 'eye') at the end of a rope



Tautline hitch: an adjustable knot for a line that can easily be adjusted, but will still stay tight under tension. Used to secure tents.



Timber hitch: used to attach a rope to a cylindrical object like a log. It is secure while tension is maintained, but it is easily untied - even when wet.



What is a hitch?

A knot is used to join two ropes together, or a rope to an object. Some knots can hold their shape whether they are tied round something else or not. A hitch is a type of knot that relies on **tension**. It will unravel if you remove the rope or object it is tied around.



A 'half hitch' looped around a stick, and the blue rope is twisted against itself, creating tension.



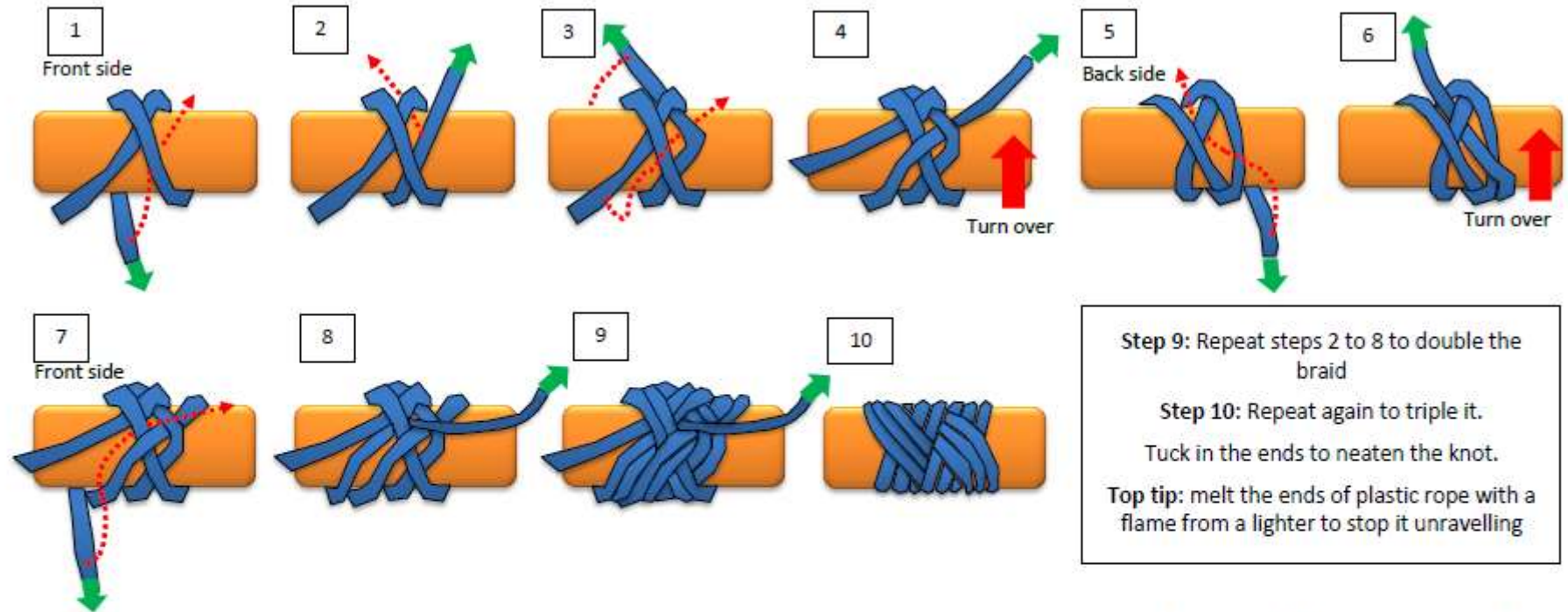
Remove the stick and the hitch can easily unravel

Activity and fact sheets

Expert Knots

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Gardens and
Fielders
Field Project
2018-2023

Expert knots: Decorative 'Turks head knot'



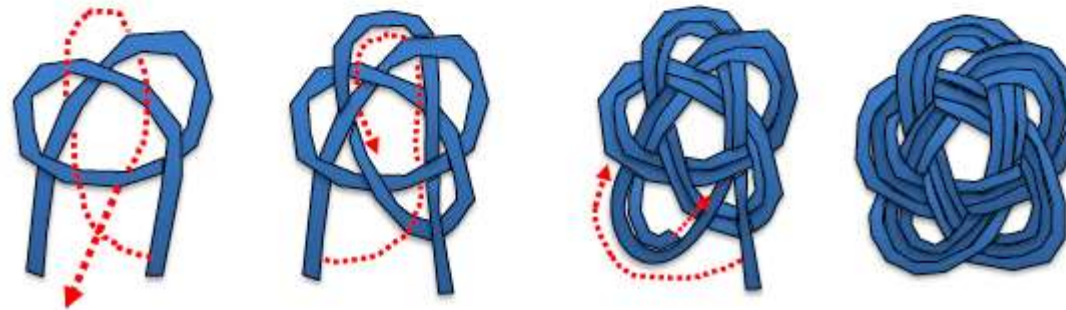
Step 9: Repeat steps 2 to 8 to double the braid

Step 10: Repeat again to triple it.

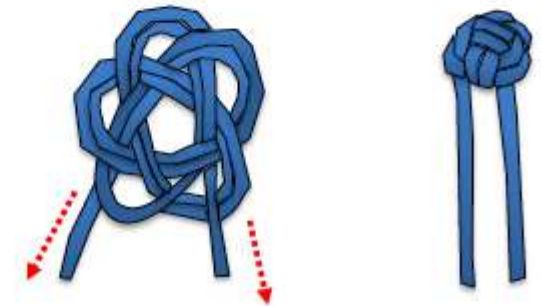
Tuck in the ends to neaten the knot.

Top tip: melt the ends of plastic rope with a flame from a lighter to stop it unravelling

Flat mat



Tight ball: pull the two free ends of the flat knot
















Activity and fact sheets

Heritage orchard fact sheet for adults

Langtons
Gardens and
Fielders
Field Project
2018-2023

| Langtons Gardens Orchard | | | |
|--|--|--|---|
| Most species are native to the East of England and sourced from The East of England apples and orchards project www.applesandorchards.org.uk . Images taken from: www.nationalfruitcollection.org.uk & www.keepers-nursery.co.uk/fruit-trees . | | | |
| Sweet dessert plums and gages | | | |
| The following trees were raised by Thomas Rivers, or Rivers nursery, Sawbridgeworth Hertfordshire | | | |
|  Cambridge Gage: First grown by Chivers & Son, Histon, 1927. Probably a seedling of Green Gage, but a more prolific cropper. Green. Pick from mid/late Aug. |  Early Transparent Gage: 1869. Awarded a First Class Certificate by the RHS in 1898. Yellow. Pick from mid/late Aug. |  Golden Transparent Gage: 1890. Awarded a First Class Certificate by the RHS in 1893. Medium-large, yellow. Pick from early Sept. |  Mallard: 1885/6. Purple red. Pick from mid/late Aug. |
| Sweet dessert apples | | | |
| F.W. Thorrington, a retired London Customs Officer, from Hornchurch in 1925, raised the following trees. They are a cross between Cox's Orange Pippin & an unknown tree | | | |
|  Braintree seedling: Raised by Mrs Humphreys, from Braintree 1930, a Gladstone & Unknown tree cross. Yellow / flushed orange colour. Pick from early Sept. |  Francis (Thorrington): Reinette colour. Pick from mid Oct. |  Sunburn: Reinette colour. Pick from early Oct. |  Edith Hopwood: Yellow colour. Pick from late Sept. |
|  Ruby (Thorrington): Flushed red colour. Pick from early Sept. | | | |
| Slightly acidic dessert apple | | Slightly acidic cooking apples | |
|  D'Arcy Spice: Found in the garden of The Hall, Tolleshunt D'Arcy, Essex, 1785. Introduced by John Harris, a nurseryman of Broomfield, as 'Baddow Pippin' in 1848. Russet colour. Scab, mildew, and canker resistant. Pick late Oct, traditionally on Guy Fawkes Day (5th Nov) and store before use. |  Rosy Blenheim: Raised by F.W. Thorrington Hornchurch, 1925. Large size, flushed red, resembling a Blenheim Orange. Mildew resistant. Pick from early Oct. |  Queen: (Essex Queen) Raised by Mr. W Bull of Billericay Essex, 1858. Introduced in 1880 by Saltmarsh of Chelmsford, Essex as 'The Claimant'. Received a First Class Certificate from the RHS in 1980. Medium-large size, striped red. Pick from early Sept. |  Dr Harvey: First recorded by Parkinson in Essex 1629, may be from East Anglia. Named after Dr. Gabriel Harvey, a former Master of Trinity College, Cambridge. Retired to Saffron Walden. He left money in 1630 to improve six miles of Cambridge to London road. Grown for 19th C London & Norwich markets. Large, yellow colour. Resists mildew. Pick late Sept. |
| Sweet dessert pears | | From the Mulberry family | |
|  Essex Pear: First recorded by Parkinson in Essex 1629, may be from East Anglia. Named after Dr. Gabriel Harvey, a former Master of Trinity College, Cambridge. Retired to Saffron Walden. He left money in 1630 to improve six miles of Cambridge to London road. Grown for 19th C London & Norwich markets. Large, yellow colour. Resists mildew. Pick late Sept. |  Essex Pear: First recorded by Parkinson in Essex 1629, may be from East Anglia. Named after Dr. Gabriel Harvey, a former Master of Trinity College, Cambridge. Retired to Saffron Walden. He left money in 1630 to improve six miles of Cambridge to London road. Grown for 19th C London & Norwich markets. Large, yellow colour. Resists mildew. Pick late Sept. |  Essex Pear: First recorded by Parkinson in Essex 1629, may be from East Anglia. Named after Dr. Gabriel Harvey, a former Master of Trinity College, Cambridge. Retired to Saffron Walden. He left money in 1630 to improve six miles of Cambridge to London road. Grown for 19th C London & Norwich markets. Large, yellow colour. Resists mildew. Pick late Sept. |  Essex Pear: First recorded by Parkinson in Essex 1629, may be from East Anglia. Named after Dr. Gabriel Harvey, a former Master of Trinity College, Cambridge. Retired to Saffron Walden. He left money in 1630 to improve six miles of Cambridge to London road. Grown for 19th C London & Norwich markets. Large, yellow colour. Resists mildew. Pick late Sept. |
| Other fruit from the Rose (Rosaceae) family - closely related to apple and pear | | | |
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| Slightly acidic dessert apple | | Slightly acidic cooking apples | | |
|  |  |  |  | |
| D'Arcy Spice: Found in the garden of The Hall, Tolleshunt D'Arcy, Essex, 1785, Introduced by John Harris, a nurseryman of Broomfield, as 'Baddow Pippin' in 1848. Russet colour. Scab, mildew, and canker resistant. Pick late Oct, traditionally on Guy Fawkes Day (5th Nov) and store before use. | Rosy Blenheim: Raised by F.W. Thorrington Hornchurch, 1925. Large size, flushed red, resembling a Blenheim Orange. Mildew resistant. Pick from early Oct. | Queen: (Essex Queen) Raised by Mr. W Bull of Billericay Essex, 1858 Introduced in 1880 by Saltmarsh of Chelmsford, Essex as 'The Claimant'. Received a First Class Certificate from the RHS in 1880. Medium-large size, striped red. Pick from early Sept. | Dr Harvey: First recorded by Parkinson in Essex 1629, may be from East Anglia. Named after Dr. Gabriel Harvey, a former Master of Trinity College, Cambridge. Retired to Saffron Walden. He left money in 1630 to improve six miles of Cambridge to London road. Grown for 19 th C London & Norwich markets. Large, yellow colour. Resists mildew. Pick late Sept. | |
| Sweet dessert pears | | | From the Mulberry family | |

Activity and fact sheets

Heritage orchard maps

Langtons
Gardens and
Fielders
Field Project
2018-2023

| 1. Langtons 'Secret Orchard' behind the Stable block | | | | | | | | | | | | |
|--|--------------------------------|-----------------------------------|-----------------------------|--------------------------------|--------------------------------|-----------------------------------|--------------------------------|--------------------------------|-----------------------------|------------------|--|--|
| | | | | | | Queen Cooking apple | Johnny Mount Pear | | | | | |
| | | | | | | Queen Cooking apple | | | | Sunburn Apple | | |
| | | | | | | Queen Cooking apple | Early Transparent Gage | | | | | |
| | | | D'Arcy Spice Apple | Edith Hopwood Apple | | | | | | | | |
| Rosy Blenheim Apple | Edith Hopwood Apple | Francis (Thorrington) apple | D'Arcy Spice Apple | Ruby (Thorrington) Apple | Quince (concorde?) | Quince (concorde?) | Braintree seedling Apple | Gansels Bergamot Pear | Johnny Mount Pear | | | |
| Rosy Blenheim Apple | Edith Hopwood Apple | Francis (Thorrington) apple | D'Arcy Spice Apple | Early Transparent Gage | Early Transparent Gage | Mallard Sweet plum | Cambridge Gage | Ruby (Thorrington) Apple | Sunburn Apple | | | |
| Rosy Blenheim Apple | Dr Harvey Cooking apple | Francis (Thorrington) apple | D'Arcy Spice Apple | Golden Transparent Gage | Golden Transparent Gage | Mallard Sweet plum | Cambridge Gage | Medlar (Nottingham) | Medlar (Nottingha m) | | | |
| Francis (Thorrington) apple | Ruby (Thorrington) apple | Johnny Mount Pear | Gansels Bergamot Pear | Braintree seedling Apple | Sunburn Apple | Sunburn Apple | Johnny Mount Pear | Braintree seedling Apple | Gansels Bergamot Pear | | | |
| Stable block and cottages buildings | | | | | | | | | | | | |
| 2. Langtons Gardens Wall, East of the Lake | | | | | | | | | | | | |
| | Medlar (Nottingham) | Golden Transparent gage | Vranja quince | Concorde quince | Nectarine Prunus persica | Rouge du Roussilion Apricot | Fig Ficus Carica | Fig Ficus Carica | Luizet Apricot | | | |
| 3. Behind the Fielders Field Cricket Building | | | | | | | | | | | | |
| | | | Medlar (Nottingham) | | | | | | | | | |
| Mallard Sweet plum | Braintree seedling Apple | Rosy Blenheim Apple | Cambridge Gage | | | | | | | | | |
| Ruby (Thorrington) Apple | Golden Transparent Gage | Gansels Bergamot Pear | Queen Cooking apple | | | | | | | | | |

Activity and fact sheets

Heritage orchard fruit
picking timeline

| When can I be picked? | Langtons Gardens Orchard Fruit picking fact sheet <i>Welcome to our Orchard! We have many English trees here! Can you find them all?</i> | | | | | | |
|--|---|---|--|--|---|---|--|
| June to August |  Gage: Cambridge Gage I come from Cambridge. |  Gage: Early Transparent Gage I come from Hertfordshire. |  Plum: Mallard I come from Hertfordshire. |  Black Mulberry I come from Asia. |  Nectarine <i>Prunus persica</i> I come from Northwest China. |  Apricot Luizet I come from Switzerland. |  Apricot Rouge du Roussillon I come from the Eastern Pyrenees. |
| September |  Gage: Golden Transparent Gage I come from Hertfordshire. |  Sweet Apples: Braintree seedling Mrs Humphreys from Braintree first grew me in 1930. |  Sweet Apples: Edith Hopwood Mr F.W. Thorrington from Hornchurch first grew me in 1925. |  Sweet Apples: Ruby (Thorrington) Mr F.W. Thorrington from Hornchurch first grew me in 1925. |  Cooking Apples: Queen I come from Essex. |  Cooking Apples: Dr Harvey I come from Essex. |  Fig I come from Asia. You can pick big soft fruits at the end of summer. The small hard fruits will be ready next year. |
| October |  Sweet Apples: Francis (Thorrington) Mr F.W. Thorrington from Hornchurch first grew me in 1925. |  Sweet Apples: Sunburn Mr F.W. Thorrington from Hornchurch first grew me in 1925. |  Tangy Apples: Rosy Blenheim Mr F.W. Thorrington from Hornchurch first grew me in 1925. |  Sweet Pear: Concorde Pear I come from Kent. |  Sweet Pear: Gansels Bergamot I come from Colchester. |  Sweet pear: Johnny mount I come from Colchester. | |
| November |  Tangy Apples: D'Arcy Spice I come from Essex. |  Medlar (Nottingham) I come from Asia & Europe. Leave me on a tray to ripe for 3 weeks before cooking and eating! |  Quince I come from Serbia. I was first grown the UK at the Tower of London! Cook first before eating! | | | | |
|      | | | | | | | |

Langtons
Gardens and
Fielders
Field Project
2018-2023

Activity and fact sheets

Heritage orchard fruit
origin map

Our trees from around the world!

- Middle East: Black Mulberry, Medlar
- Asia: Fig, Nectarine
- Serbia: Quince
- Valais: Luizet Apricot
- Eastern Pyrenees: Rouge Du Roussillon
- Langtons House



Our Local Orchard Trees

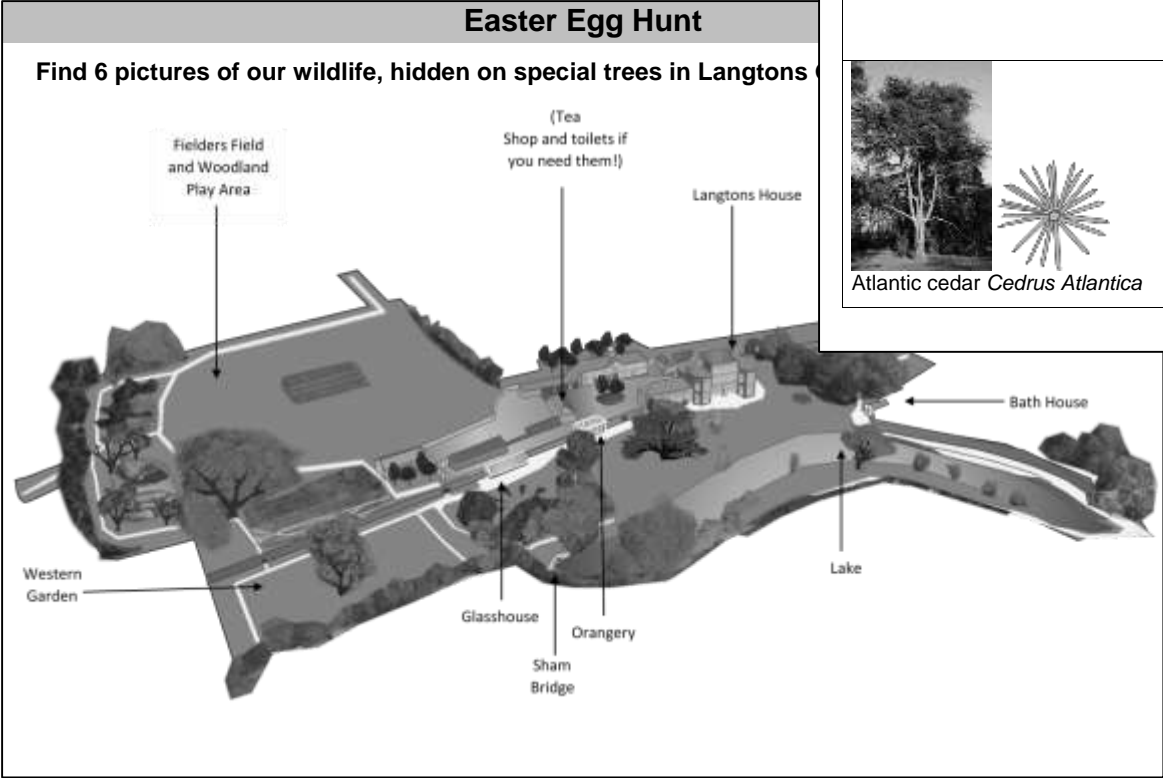
- Cambridge
- Sawbridgeworth
- Braintree
- Hornchurch
- Tolleshunt D'Arcy
- Billericay
- Saffron Walden
- East Malling Research Station
- Donyland Park
- Colchester















Langtons
Gardens and
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Field Project
2018-2023

Activity and fact sheets

Ancient tree Easter egg hunt



Langtons
Gardens and
Fielders
Field Project
2018-2023

| Clues! | | | | | |
|---|---|--|---|---|---|
|  |  | Holly bush: a plant used in traditional Christmas decorations. Warning: I'm spiky! Lives in the woodland and western garden. |  |  | Cedar of Lebanon tree: big tree with big low swooping branches. 200 + years old. Lives near the 18 th C Orangerie. |
|  |  | Mulberry tree: an old tree, with gnarly bark and dark red/black fruit in the summer. Lives in the western garden (while you are here, smell the Lavender by the Glasshouse!) |  |  | Magnolia tree: pretty white/ pink spring flowers, approx. 100 year old. Lives near the house (also near the 19 th C bath house, one of only 5 surviving in the country!). |
|  |  | Cedar Atlantica tree: a tall evergreen tree with long upright branches. Lives in the western garden. |  |  | Horse chestnut tree: a big tree that makes conkers! 200 + years old. Lives by the lake and Sham bridge. |
| Holly <i>Ilex Aquifolium</i> | | | Cedar of Lebanon <i>Cedus libani</i> | | |
| Black mulberry <i>Morus Nigra</i> | | | Magnolia | | |
| Atlantic cedar <i>Cedrus Atlantica</i> | | | Horse chestnut <i>Aesculus hippocastanum</i> | | |

Activity and fact sheets

Advanced adult marshland ecology

Langtons
Gardens and
Fielders
Field Project
2018-2023

Advanced pond and marshland ecology activity sheet

Did you know? (Answers at the bottom of the page)

1. A pond and marshland are an important part of the landscape. They are important for the environment because they provide a habitat for many different plants and animals.

2. A pond is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land.

3. The water in a pond is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land.

What can you find here?

1. **Vegetation and plants:** pond plants like water lilies, pondweed, and duckweed. **Animals:** pond animals like pond skaters, water snails, and pond fish.

2. **Water level:** pond water is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land.

3. **Water temperature:** pond water is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land.

4. **Water quality:** pond water is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land.

5. **Water level:** pond water is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land.

6. **Water temperature:** pond water is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land.

7. **Water quality:** pond water is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land.

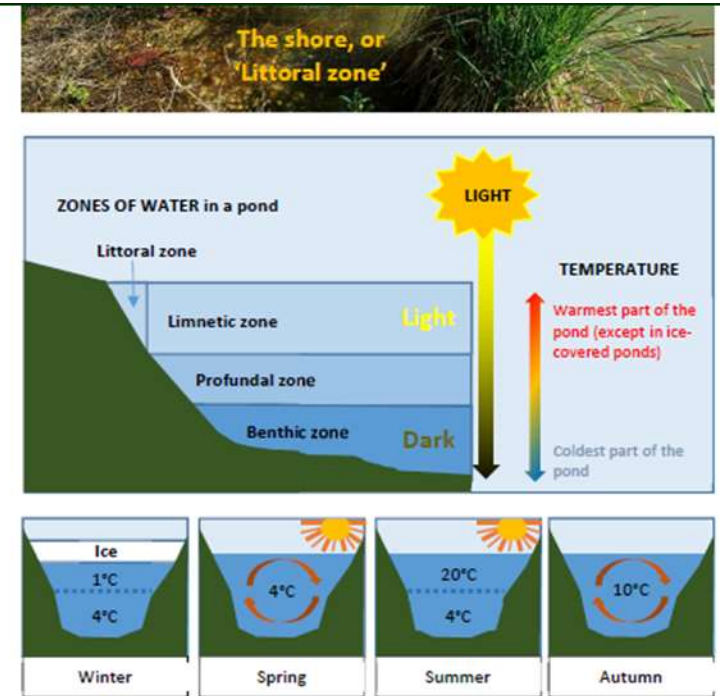
8. **Water level:** pond water is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land.

9. **Water temperature:** pond water is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land.

10. **Water quality:** pond water is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land. It is usually a body of water that is surrounded by land.

Answers: a. Essex. b. 500,000 and Three million. c. 100 and 14,000. d. Smaller and Shallow. E. Waves.

- o Molluscs like water snails
 - o Plants like cattails and reeds
 - o Algae (*photosynthetic* creatures. Not a plant, animal or fungi!) and zooplankton (tiny plants and animals)
- **Limnetic zone:** the top of the water is usually the warmest water, and has the most light and oxygen.
 - o Floating plants like lilies and duckweed
 - o Algae and zooplankton
 - o Insects like pond skaters
 - o Molluscs like water snails
 - o Fish
 - o Frogs
- **Profundal zone:** the middle layer. It has less light, plants, and oxygen.
 - o Plants such as Coontail, Water Milfoil
 - o Fish
 - o Newts
 - o Insects like water boatmen, and lake flies
 - o Aquatic worms
- **Benthic zone:** the bottom of a pond and the mud, gravel, sand, or clay. It is usually colder, more acidic, darker, and has less oxygen.
 - o Microorganisms like bacteria and fungi,
 - o Crustaceans like shrimp
 - o Leeches and worms
 - o Insects like caddisfly larvae, and water nymphs.



Hutchinson and Löffler (1956) described most ponds as **holomictic**: the pond water mixes when all the water is the same temperature. Water is most dense at 4°C, so that water will sit in a layer at the bottom of the pond. Water gets less dense or lighter when hotter or cooler than 4°C, so if the sun warms the surface water it floats above the cool layer of water and does not mix. '**Meromictic**' ponds have layers of water that do not mix for years. This can happen if the pond is very deep. The bottom layer can be saltier, and have less oxygen, bacteria and wildlife. **Anoxic Ponds** have no oxygen, this is called 'hypoxia'.

Answers: a. Essex. b. 500,000 and Three million. c. 100 and 14,000. d. Smaller and Shallow. E. Waves.

Heritage Lottery Fund

Land of the Fanns

Volunteers from Thames Chase built our pond for the community, with money kindly donated by Veolia Havering Riverside Maintenance Trust, and the Land of the Fanns project.

Havering

ESSEX

What can you find here?

| | | | | | |
|---------|-------------|------------------|-------------|------------------|---------------|
| Bulrush | Common Reed | Yellow flag iris | Water snail | Whirligig beetle | Newt |
| Toad | Frog | Damselfly | Dragonfly | Pond Skater | Water boatman |

Activity and fact sheets

Advanced adult woodland ecology activity sheet

Langtons
Gardens and
Fielders
Field Project
2018-2023

Langtons Gardens and Fielders Field

Advanced woodland ecology activity sheet

Did you know? (Answers at the bottom of the page)

a. The woodland in Fielders Field is at least.....years old!

b. In the wartime, there was a and an allotment for growing food here.

c. The field is named after its last owner, a man called.....

d. This field used to be called '.....', and was part of the Great Langtons Estate.

e. The cricket pitch, house, and gardens were built on the estate over years ago.

f. The whole of the UK was covered in woodland like this..... years ago!

Fill the gaps with these words:

Jack Fielder

Tennis court

Duck Field

13,000

200

50

There are 3 types of woodland in the UK: have a look around the woodland, what trees do we have here?

Deciduous or 'broadleaved'

Coniferous trees have needle-like

Mixed woodland have both

trees lose their leaves in winter.

leaves all year round.

coniferous and deciduous trees.

What can you find in a woodland? Tick what you have seen!

Sky

Tree Canopy

Shrubs

Field layer

Path

Leaf litter and soil

Did you know?

Oaks can live 100 years, and over 300 insect species live on them!

Langtons Gardens and Fielders Field

Advanced woodland ecology activity sheet

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Shrubs

Field layer

Path

Leaf litter and soil

Look closer at a leaf's fantastic *photosynthesis*!

Plant leaves (and algae) soak up energy from sunlight, and

Activity and fact sheets

Advanced adult woodland and pond ecology activity sheet

Langtons Gardens and Fielders Field Project 2018-2023

What does wildlife need to survive?

Photograph or draw something to represent each of these important factors, and then make a display or book of your images!

Woodlands:



Bluebells need to grow in the spring, before tree leaves grow in summer and block light.



Colder temperatures:

Conifer trees can live in colder places and in sandy and dry soil that other plants find it hard to grow in.



Predators: if there are too many plant eaters, like deer, rabbit and snails, new plants cannot grow. Predators like foxes, adders, and frogs help to keep grazing animal populations low, and give new trees and shrubs a chance to grow.



An untidy space! Too much cutting and clearing of plants and dead wood can destroy homes for wildlife. Over 1000 species depend on dead wood, and cracked and fallen trees, including hedgehogs, fungi, beetles, lichens, birds and bats.**Did you know?** Rare stag beetles need dead wood to stay in place for at least 8 years to complete their life cycle.

Sunlight:



The plants you can find in a woodland change over time: Herbs, ferns and shrubs grow first, as they need open space and sunlight.



Next, fast-growing short-lived trees like birch take over and start to block the sunlight.



Finally slow growing trees like oak or beech eventually take over.



The wind: Some seeds and spores need the wind and rain to travel, like the sycamore.

It has winged fruit that rotate and fly away in the breeze, like a helicopter!



Ivy and lichen grow high on trees to reach sunlight



Water: some things need wet soil, water filled holes, and wet wood to live in, like willows, algae, worms, moss, lichens, bacteria, beetle larvae and fungi that slugs and creeping slime molds need to eat.



Wildlife working together: Plants grow tasty fruit for animals, who eat the fruit and spread their plant seeds around. Some plants and fungi join roots together to share nutrients gathered from the soil. Flowers have patterns and tasty nectar that attract moths and bees: the insects get a tasty meal, but also pick up pollen and carry it to another plant, which the plant uses to grow new seeds.



Humans: We can help woodlands to grow, and be a home for lots of wildlife, and still take wood for us to use. We help woodlands by planting trees, controlling weeds and invasive species, removing branches and taking some trees away if they become too crowded.

Humans also cut wide paths in woodlands. Paths give birds, bats and dragonflies space to fly and hunt insects. Plants can grow in the patches of sunlight here, and the plants give the animals something to eat. Paths also help to stop fires from spreading across trees.

Ponds:



Clean water: Pollution from detergents, fertilizers, or sewage, or even soil, can cause too much algae and plants to grow, and they use up the ponds oxygen.



Mud: plants grow in it and it is a home and food source for wildlife. However, sand, leaves, and soil can build up in a pond leaving no room for clean water, so it needs regular clearing.



Pumps, filters or fountains: some man made ponds need them to improve oxygen levels, so that plants and fish can survive there.



Vernal ponds dry up for part of the year, so fish cannot live here. However, this is a safe home for the frogs and plants that fish like to eat!



Wetlands and marshes: the roots of marsh plants hold pond walls together and keep them from washing away. They also absorb floodwater, and give food and shelter to lots of different kinds of wildlife.



Ponds do not need invasive species added by humans! Some fish and terrapins will eat all the wild plants, frogs, insects in a pond.

Balanced pH levels: Fish need pH neutral water. pH stands for potential Hydrogen, and the pH scale shows how much hydrogen something has.

- pH1 has lots of hydrogen, and is **acidic** like a sour lemon.
- pH 7 is **neutral** like pure water.
- pH 14 has low hydrogen, and is **alkaline**, which is bitter and soapy.

The following things change the pH level of a pond:









- **Soil** around the pond can leach in to the water and change the pH.
- **Carbon Dioxide** in the air reacts with water to make it more acidic.
- **Plants and algae** use up carbon dioxide in *photosynthesis* (page 1), so make the water less acidic.
- **Light:** few plants live in deep dark depths, so this area is more acidic.
- **Adding water:** rainwater is acidic; tap water can be alkaline or acid.
- **Fallen leaves** like pine or oak are acidic. So, if lots of leaves fall in to a pond and stay there, they make the water more acidic.







Activity and fact sheets

Advanced adult woodland identification sheet

Langtons Gardens and Fielders Field Project 2018-2023

Confusing woodland and pond species! How are they different?

| Amphibian | | Insects, 'Odonata' | | Eulipotyphla | | Lagomorpha | |
|--|---|--|---|---|---|--|---|
|  |  |  |  |  |  |  |  |
| Common frog | Common toad | Damselfly | Dragonfly | Common shrew | Mole | Rabbit | Brown Hare |
| <ul style="list-style-type: none">• Common, protected species.• found near water• Moist slimy skin• eggs are a lumpy mass | <ul style="list-style-type: none">• Common, protected species.• Gets out on dry land more• Dry bumpy skin• eggs are a long chain | <ul style="list-style-type: none">• Eyes have a gap between them.• a long narrow body• Folds it wings together. | <ul style="list-style-type: none">• larger eyes• Shorter, thicker bodies.• Holds wings out like an airplane | <ul style="list-style-type: none">• Common, protected species.• Babies hold on to each other's tail when walking!• It uses the echo of its shrieks to help find out where it is going!• Hunts above ground, all day. | <ul style="list-style-type: none">• Common, important for keeping soil airy and free from some crop-eating bugs.• Found underground• Has black velvety fur, and big front paws. | <ul style="list-style-type: none">• Common. Not a native species.• Small, and does not have black tips on its ears. | <ul style="list-style-type: none">• Getting rare. Non-native, protected species.• Long legs and black-tipped ears. |
| | | <ul style="list-style-type: none">• Both live in shallow freshwater when young, Adults can fly.• Both types have rare and common sub-species. | | | | | |

| Rodents (in size order, smallest far left) | | | | | |
|--|---|--|---|--|--|
|  |  |  |  |  |  |
| Harvest mouse | House mouse | Hazel dormice | Field or wood mouse | Water Vole | Rat |
| <ul style="list-style-type: none"> Common, protected species. Makes a round nest high up on tall grass. Golden-brown fur and a tail that can hold on to things like a monkey! It is one of the smallest rodents in Europe. | <ul style="list-style-type: none"> Common. Lives mainly indoors when it is cool. It is a solid light brown or gray color, with large eyes and ears. Has a long tail. Can be smelly! | <ul style="list-style-type: none"> Very rare, protected species. Lives high up in trees and thick hedgerows. Golden brown fur, large black eyes and a thick bushy tail. | <ul style="list-style-type: none"> Common. Important as owls need them for food, and it stores seeds and nuts by burying them- they grow into new trees if forgotten. Lives outdoors, comes out at night. Sandy brown fur and a white belly. | <ul style="list-style-type: none"> Rare, protected species Lives near water. Round nose and chubby face, short ears and tail. | <ul style="list-style-type: none"> Common. Invasive species. Found anywhere. Pointy face, long tail, big ears. its poo smells bad! |

| Mustelid (in size order, smallest far left) | | | | | | |
|---|---|---|--|---|---|---|
|  |  |  |  |  |  |  |
| Weasel | Stoat | Polecat | Pine marten | Mink | European otter | Badger |
| <ul style="list-style-type: none"> Common. Found in many places. Eats small mammals and birds. Has a brown back, white belly and a short tail. Very small. It runs with a straight back. | <ul style="list-style-type: none"> Common. Found in many places. Eats small rodents and rabbits Like a big weasel + long black-tip tail. Can turn white in winter! It arches its back when it runs. | <ul style="list-style-type: none"> Rare, protected species. Found in grassland, farmland, wetlands, and woodland. Eats rodents, frogs, birds, snakes. Dark brown with bandit-like white striped face. | <ul style="list-style-type: none"> Rare, protected species. Found in Scottish woodlands Eats small rodents, birds, eggs, insects, fruit and seeds. Brown with a yellow chin, and a long, bushy tail. | <ul style="list-style-type: none"> Common. Invasive species. Good swimmers. Found in many places. Eats anything it can catch. brown-black fur, a white chin Braver than the shy otter. | <ul style="list-style-type: none"> Rare, protected species. Great swimmers, found in watery areas in many places. Eats fish, waterbirds, amphibians and crustaceans. Large and powerful, grey-brown fur, webbed feet. | <ul style="list-style-type: none"> Not rare, protected species. Lives in large family burrows. Eats mammals, eggs, fruit, roots. Can eat hundreds of worms a night! Our biggest land predator. Easier to recognize than other mustelids. Grey, with a black-and-white striped face. |



This is a free educational document- not to be used for commercial purposes. Illustrations by Lisa Lock. The Langtons Gardens/Fielders Field project is supported by the Heritage Lottery Fund, the Veolia Havering Riverside Maintenance Trust and The Friends of Langtons Estate. Park of the Year GOLD winner London in bloom 2019, Green Flag Award winner 2019. <https://en-gb.facebook.com/LBH.Parks/>







Activity and fact sheets

Autumn activities

Langtons
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2018-2023

Spooky Spiders!

Please don't pick them up! They help look after our garden –help them stay, plus, if they are scared they might bite.

| | | | | | |
|--|--|---|--|--|---|
|  <p>Giant house spider, <i>Eratigena atrica</i></p> <p>lives one year, females may live several years. leg span between 25 to 75 millimetres (0.98 to 2.95 in)</p> <p>female only leaves its nest to feed, males often seen wandering around houses during autumn looking for a mate.</p> <p>The bite is not a threat to humans or pets, generally reluctant to bite, preferring to escape.</p> |  <p>European Garden Spider or Cross Orb-Weaver, <i>Araneus diadematus</i></p> <p>lives one year, females may live several years. can grow up to 13mm found in gardens across Britain from June to October. eats flying insects caught in their orb-shaped webs.</p> <p>Egg sacs are laid on branches, garden fences and garden sheds in the autumn with spiderlings hatching in the spring.</p> |  <p>False widow spider, <i>Steatoda Nobilis</i></p> <p>Males can live to 18 months, Females live for three years</p> <p>a 7-14mm dark shiny body with pale markings on the abdomen</p> <p>seen all year round in buildings,</p> |  <p>Cellar spiders, <i>Pholcus phalangioides</i></p> <p>males live around two years, and females three years.</p> <p>their spindly bodies reaching around 10mm long.</p> <p>They can be seen all year round.</p> <p>eats small insects like</p> |  <p>NOT A SPIDER! The Common harvestman, <i>Phalangium opilio</i></p> <p>Males live one year. Females can live for three years.</p> <p>They are arachnids, related to spiders and scorpions. Unlike spiders, they do not spin silk and do not produce venom. If they lose a leg, they do not regrow it.</p> |  <p>NOT A SPIDER! Crane Fly, <i>Tipulidae</i></p> <p>Adult flies live only two weeks and die after mating.</p> <p>Their brown larvae 'leatherjackets', are pests and eat roots and damage crops.</p> <p>About 25mm</p> <p>Seen in the evening,</p> |
|--|--|---|--|--|---|


LANGTONS GARDENS ACTIVITY

MAKE WILLOW LANTERNS

The instructions are for a basic pyramid lantern. Once you've mastered a pyramid, get creative and try different shapes and sizes, lanterns with curves, and lanterns with finer details. Do not use real candles!

You will need


- A Tray
- Tissue Paper
- PVA Glue
- Sponge / Paint Brush
- Garden Scissors
- LED Tea Light
- Masking Tape
- Garden Cane / Bamboo or Willow
- A space you can get messy!

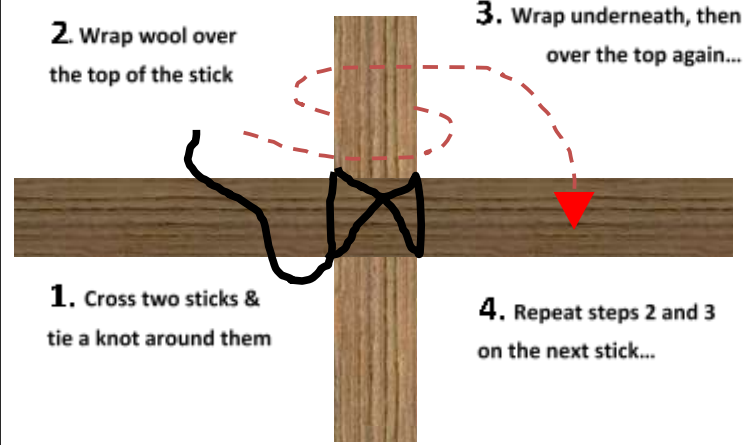


Instructions

1. **The base:** Using two or three sticks, cut 4 pieces that are the same length and similar thickness. Tape the corners together to make a square.
2. **The frame:** Decide what height you would like your lantern and cut 4 sticks the right length. Tape the ends onto the base corners, and fix them all together at the top with tape.
3. **Add some cross bars:** to strengthen the shape
4. **Make a loop:** To make a carrying loop, bend a piece of willow and attach with tape to the top. You can also attach a bamboo cane to this if you want a longer handle.
5. **The messy bit:** Use a brush or sponge to cover a sheet of tissue paper with diluted PVA glue (50:50 works best). Holding the four corners apart, place it on the lantern structure. Cover the whole lantern, but remember to leave a gap at the bottom to insert the light. Overlap edges of the paper as you go, smoothing any bits that are sticking up.
6. **Shine a light:** Once your lantern is dry, insert your LED and light it up! You can also paint your lantern or use different colored tissue paper to decorate.

Instructions adapted from <https://www.edenprojectcommunities.com/stuff-to-do/make-willow-lanterns>





Making a Spooky spider web decoration

The hardest bit is starting it off as it looks a mess at first- keep going! Wrap the wool around the sticks one at a time, always the same way (over the top first). When finished, Tie it off and make a loop to hang it with using the wool.

Activity and fact sheets

School group plans and resources

Langtons
Gardens and
Fielders
Field Project
2018-2023

In each habitat:

- ✓ Collect one leaf (ideally from the floor) and add to bucket
- ✓ List what you find in each habitat:

a. Lake

- i.
- ii.
- iii.
- iv.

b. Shrubs

- i.
- ii.
- iii.
- iv.

c. Pond and marshland

- i.
- ii.
- iii.
- iv.

d. Grassland

- i.
- ii.
- iii.
- iv.

e. Woodland floor

- i.
- ii.
- iii.
- iv.

Discuss: How are the habitats different?

a. Places for animals to:



rest



grow



hide



eat

b. Temperature:

hot

warm

cold

c. Humidity:



wet



damp



dry

d. Light:



light



dusky



dark

e. Height:



high



medium



ground / underground

Date: 10am to 11.30 both days (16th and 17th May) for two groups,

or 10am- 12 (ish) all together on the Monday 16th May

Times: ?

Subject: Science: animal habitats, adaptation and food chains. Looking at local wildlife and their habitats, and how animals adapt to their environment.

Weather: If it is raining unfortunately we have no shelter, except for the greenhouse that can fit about 20 people, so we will have to cancel.

Numbers: 2 classes, with about 28 children each

Contact:

Resources:

- One clipboard and bucket to share per small group or partners
- Animal shapes for sorting
- Nets, trays, tree sheet
- Animal bingo
- Pond dip kit
- Insect pot and nets

1. **10.00 am** arrival and begin walk
2. How many different habitats do we have here? - walk, (about 10 min's each place, 20 min pond dip.)
 - a. Pond and marshland
 - b. Grassland
 - c. Woodland floor
 - d. Woodland canopy
 - e. Shrubs
 - f. Lake
3. In each habitat:
 - a. How many plants/animals can you find here? - Animal bingo
 - i. Pond dip (Compare the biodiversity of the lake dip to the pond, why is it this way? Discuss changes to the ecosystem caused by humans introducing more fish and terrapins)
 - ii. Lift a rock/log
 - iii. Shake a tree
 - iv. Insect net (might not be possible - wrong season)
 - b. Adaptation: what special features do the animals have to help them to survive? How are they suited to live here? – discussion
 - c. How are the habitats different? – Habitat tick list
 - i. Temperature: hot warm cold
 - ii. Humidity: wet damp dry
 - iii. Light: light dusky dark
 - iv. Altitude: high in the sky, tree canopy, bush height, ground level, underground
 - v. Places for animals to rest, grow, hide?
 - d. Collect one leaf (ideally from the floor) and add to bucket.
4. **11.00** return to ring seat area
 - a. Comparing plants leaves in bucket, and animals seen that day- how are they different? - What groups or order would you put them in?- group activity
 - b. Food chain – put in order- group activity
5. **11.30** Lunch?

Permanent signage

Bath house and orangery



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Permanent signage

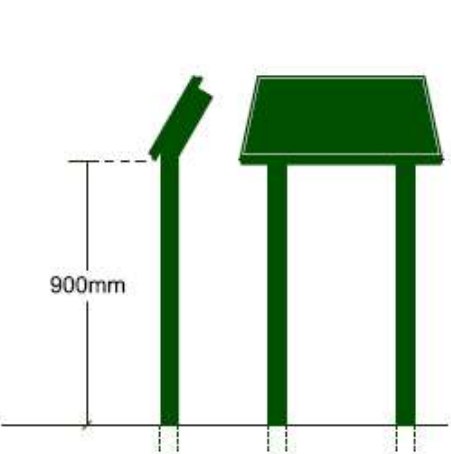
Lake wildlife

Langtons
Gardens and
Fielders
Field Project
2018-2023



Sign 13

4.5mm



| | |
|------------------|------------------------------|
| Quantity: | 1 |
| Main Cap Height: | as indicated |
| Signface: | Vitreous Enamel |
| Signface Colour: | Green RAL6002 |
| Graphics Colour: | Gold & White 10 Transfers |
| Fixing: | Free standing |

| | | |
|--|--|---|
| Customer: | London Borough of Havering | |
| Contractor: | N/A | |
| Project: | Langlons Gardens Signs | |
| Site: | Langlons Gardens | |
| Job number: | 2180168 | |
| Sign number: | Sign 13 | |
| Interpretation Panels | | |
| Graphic drawing ref: | 2180168_G_13_DG_001 | |
| Graphic drawing directory: | All_by_Job_No(2018/2180168 Havering/02 graphics/ 01 Current Graphics | |
| Engineering drawing ref: | TBC | |
| Engineering drawing directory: | All_by_Job_No(2018/2180168 Havering/03 CAD | |
| Site plan ref: | N/A | |
| Source drawing: | N/A | |
| Customer drawing ref: | N/A | |
| Notes: | N/A | |
| | | |
| | | |
| | | |
| | | |
| 3 | 21-03-19 | revised as suggested changes |
| 2 | 14-03-18 | Bigger sign with revised text, Font Arial, white logos |
| 1 | 16-02-18 | First Issue |
| Rev | Date | Details |
| Browse Bion Unit 19 Lakeside Park, Midway City Estate Rochester, Kent, ME2 4LT Tel: 01634 710063 Fax: 01634 290112 sales@browsebion.com | | |
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| BROWSE BION | | |
| Architectural Signs | | |

Permanent signage

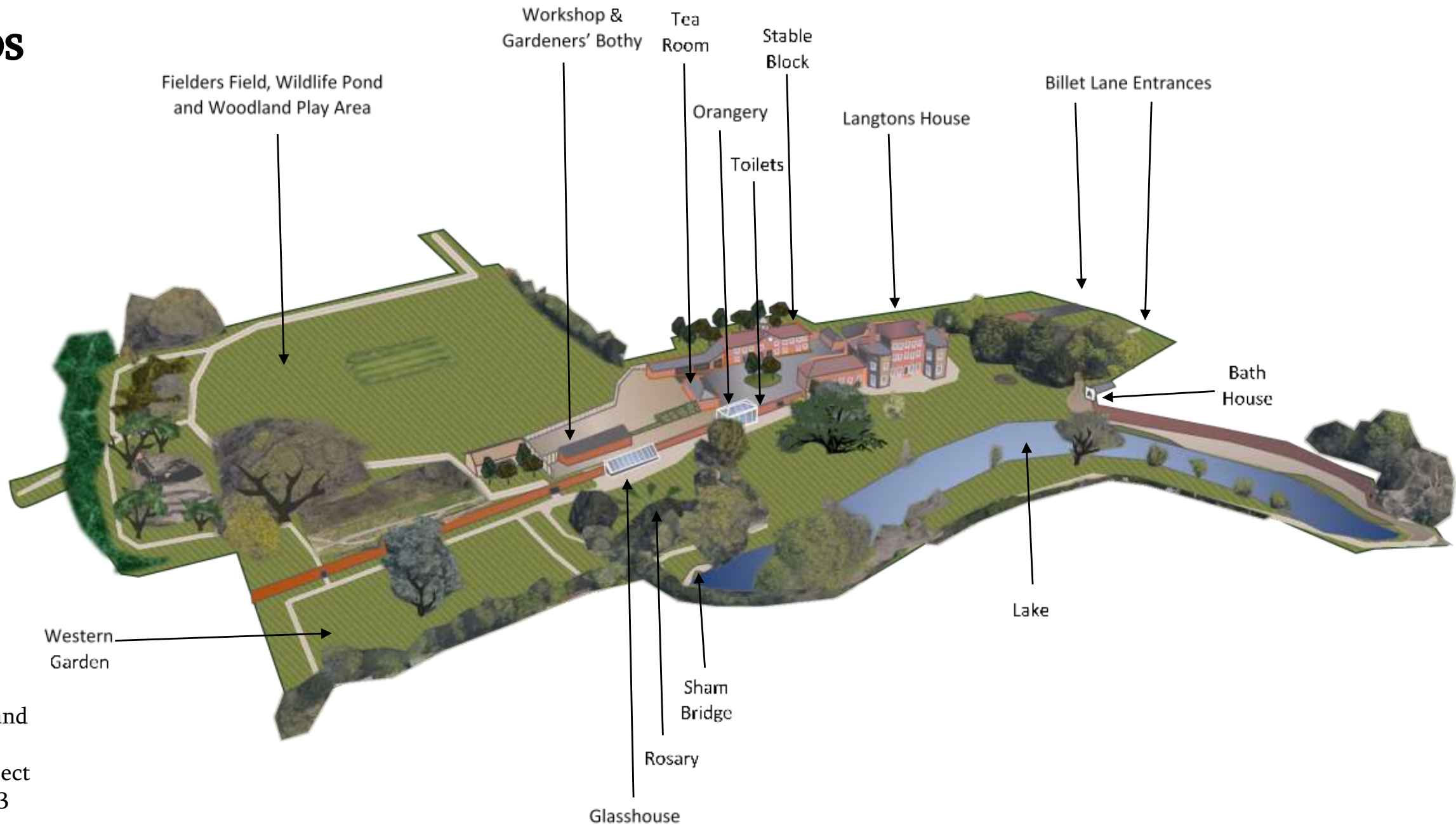
Directional and notice boards



Langtons
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2018-2023



Maps

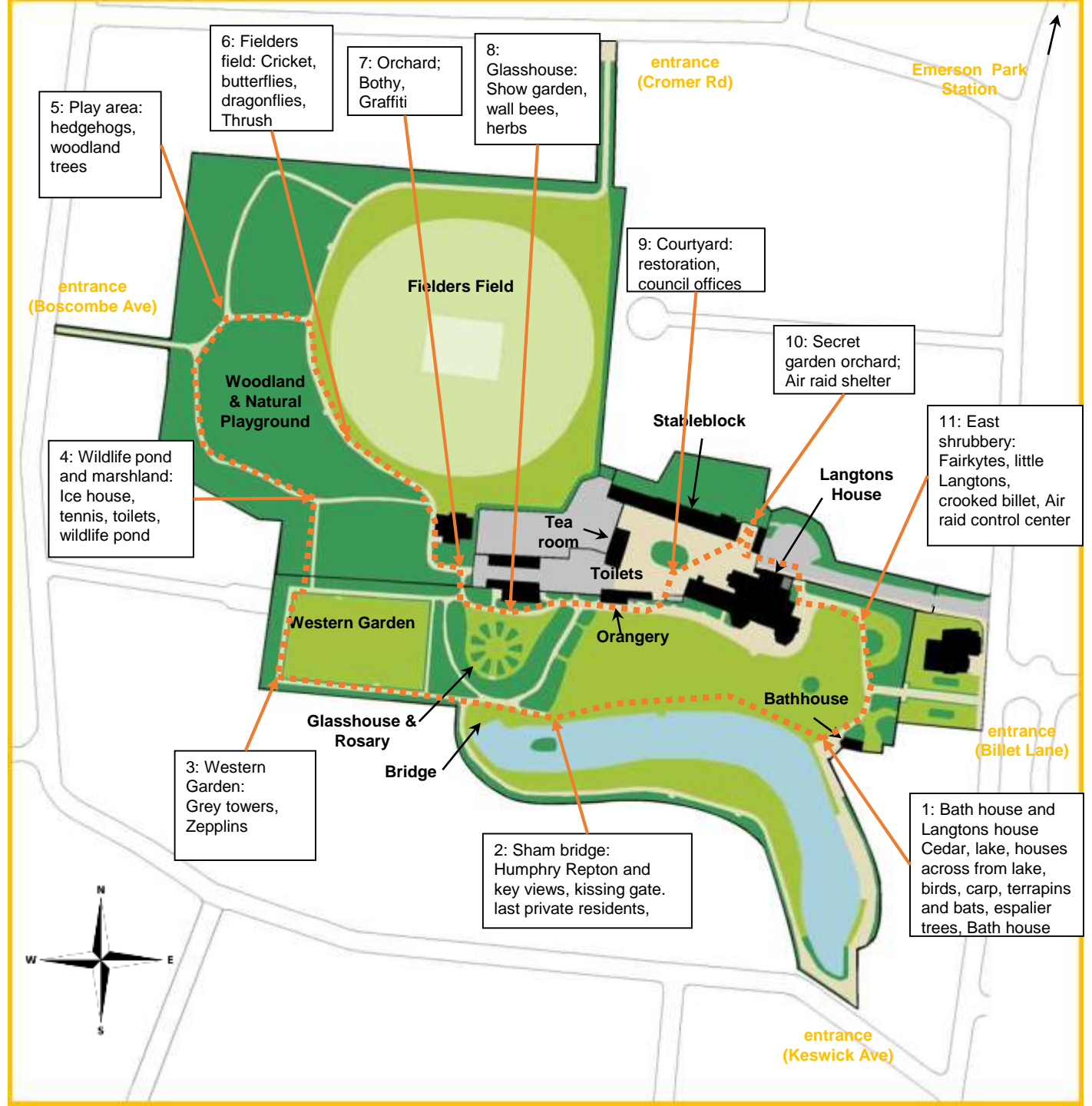


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New Walking routes

By Lisa Lock, Langtons Activity Officer, and Deborah Kirk, Volunteer Local Historian

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A new historic timeline

Created in partnership with volunteers, the Essex Gardens Trust, and the local studies library

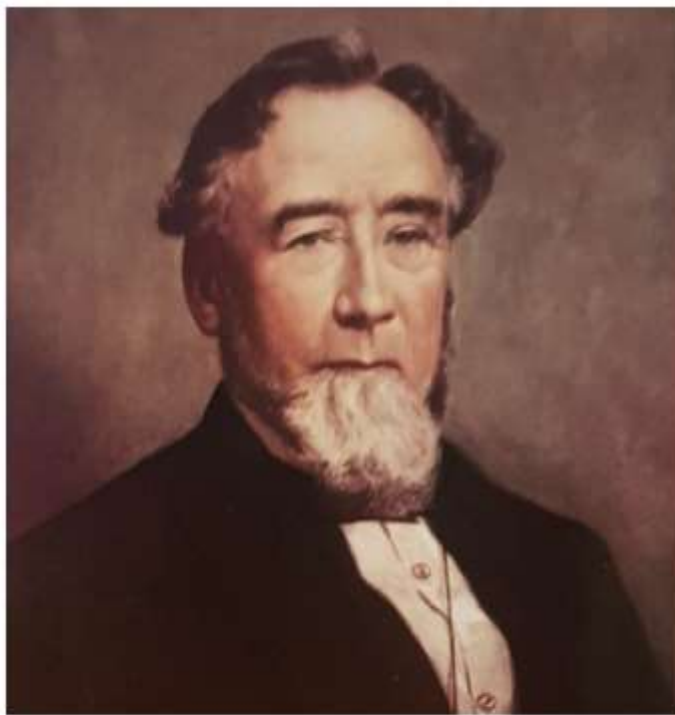
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Fields
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- **Records of Langtons House and Gardens**
- **13th century:** land called 'Langedun' from the Old English words lang and dun meaning 'the long hill or down'. Owned by the wealthy Thomas de Langedun.
- **1446:** house called 'Marchauntes' (a medieval word for merchants)
- **1514:** land called 'Langtonsland'
- **1593:** Owned by the wealthy Thomas Latham (also owned a farmhouse –now Fairkytes house). Left to his widow Frances Latham.
- **c.1606:** Owned or tenanted by Thomas Barber.
- **1610:** Owned by Mr or Mrs Alice Bagley. The rest of the land is divided into strips of different ownership.
- **Sometime before 1657:** owned by John Ellison, He also owned Fairkytes, then left to his wife Susan Ellison. Langtonsland was also possibly occupied by Job Alibond of London, who is known to have lived at Fairkytes in the 17th century.
- **1730-1746:** 'Langton Hall' owned by Richard Gosfright, East India Company sea captain, joint-proprietor of the Blackwall shipyard.
- **1746-1772:** left to his widow Catherine Gosfright, then to daughter Sarah Mackrill & husband John Mackrill, a Bermondsey wool merchant, plus her sister Frances occasionally lived there with her husband Robert Henley Ongley of Old Warden, M.P. for Bedford.
- **In 1772-1785:** owned by brewer John Mayor, M.P. for Abingdon, and brother in law of James Esdaile, Lord Mayor of London in 1766.
- **1777:** The Andre and Chapman map of Essex shows Langtons as an L shaped building, with parkland and an orchard.
- **Mid to late 18th century:** Langtons House and gardens, and Fairkytes were reconstructed in a Georgian style. Along with the stable block, cottages and the orangery. The grounds plans are attributed to the renowned garden landscape designer Humphry Repton.

Historic Research

Uncovered a photo of the original owner of Langtons House and Gardens W.V. Williams in a family record book that I bought on Ebay.

Langtons
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Field Project
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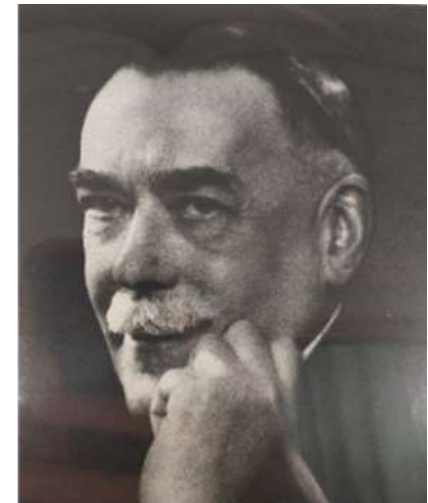
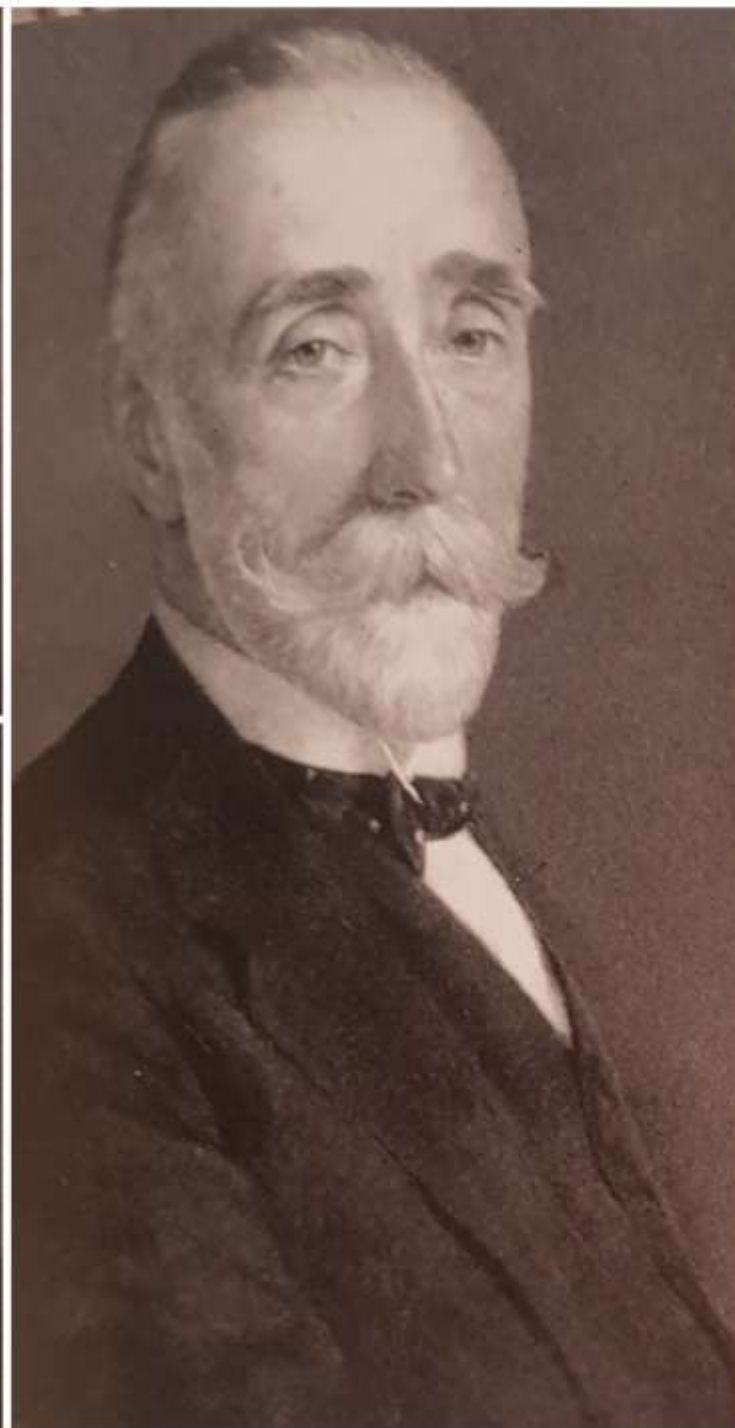
Top Left: William's Father Samuel Williams

Below Left: William's brother Arthur Edward Williams

Right: William Varco Williams, himself.

All from: 'A company's story in its setting, Samuel Williams & Sons Ltd 1855-1955' produced by Newman Neame Limited, Printed by Ebenezer Baylis & Son Limited, The Trinity Press, Worcester and London. (First edition private copy owned by LBH, believed to originally be a family copy.)

Below: Arthur Edward Williams, image from Karen Rushton, Borough Archivist, Valence House, London Borough of Barking and Dagenham



Historic Research

a photo of the interior of Grey towers, found in partnership with the local studies library. This is our only known view of the interior of either building. *Grey Towers, Hornchurch, interior view of the drawing room* *Havering Local Studies, Ref No: IL/SLI/HOR/85,*

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Havering Libraries-Local Studies

Historic Research

Uncovered a photo, in the archives of the Alexander Turnbull Library, Wellington, New Zealand, of the original land that existed on the other side of Langtons lake, before the houses were built here in the 1930's. we previously did not have an image of this.

The two o'clock parade at the New Zealand Convalescent Hospital in Hornchurch, England. Photograph taken circa 1918 by Thomas Frederick Scales. Royal New Zealand Returned and Services' Association :New Zealand official negatives, World War 1914-1918. Ref: 1/2-013988-G. Alexander Turnbull Library, Wellington, New Zealand. /records/22806557

Langtons
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Fielders
Field Project
2018-2023



Online Exhibition

A free exhibition, made in partnership with the Local library and the Library of New Zealand: 235 pages of images! [The Langtons and Grey Towers Estates in the early 20th Century.pdf - Google Drive](#).

**Welcome to our
free online
exhibition for the
local community**

**Created by the Heritage
Lottery Funded Langtons
Gardens and Fielders
Field Project.**

The author of this image
was Mrs Fraser Parkes,
who was the last private
resident of Langtons. Our
resident Swans still nest in
this place today!

Langtons from the Park,
Havering Local Studies, Ref No:
IL/PHG/COLL/23/18 (also
marked as by Bursall Tonge)



Havering Libraries-Local Studies

The Great Langtons and Grey Towers Estate in the early 20th century

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Forest School handbook

Guides, risk assessments, policies, agreements, and woodland management plan

Langtons
Gardens and
Fielders
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2018-2023



Fire Bucket

Bucket Cover

Clean Water

Burns Kit

Fire Blanket

Fire Gloves

Personal safety:

- Loose, long hair tied back.
- Sleeves rolled up.
- Loose clothing and jewellery secured.
- Fire gloves are worn for handling hot objects.
- Essentials to light the fire:
 - Ignition: Fire striker.
 - Tinder: Cotton wool, newspaper.
 - Kindling: Small match-stick width twigs: Silver birch ... etc.
 - Fuel: Pencil thickness, thumb thickness, wrist thickness.
- Rules of the fire area:
 - Enter and exit the seating area by walking outside the seating circle.
 - Ensure adult to children ratios are adhered to.
 - Safe stance – kneel in front of the fire (one knee up, one knee on the floor).
 - You should sit minimum 1.5 metres away from fire bowl.
 - Ensure the fire is fully extinguished at the end of the session – by fully dousing the fire bowl with water.
 - Leave no trace.

COOKING AT FIRE – Safety rules for participants

Remember the following is needed to light a fire:

- ✓ permission,
- ✓ fuel,
- ✓ air,
- ✓ ignition
- ✓ water
- ✓ And a safety kit to the fire.
- ✓ Fire gloves are to








Always have a bucket of water, towel and a fire blanket located near be worn for handling hot objects.



7.4 TOOL PROCEDURES

Using a range of tools will be necessary in many activities and is important in developing new practical skills that help develop self-confidence. The following guidelines are to be followed when using tools and will be outlined to the helpers and children in a “tool talk” prior to starting the activity

Tool use adapted from the NUMCASS chart, Essex Wildlife Trust.

| With all tools: One to one supervision for early years children. Inform person using tools of tool talk (see hand book). Use gloves if needed on working hand or both, and appropriate positioning of hands and body. First aiders and first aid kit close by. Tools counted in and out each session. Keep in cover when not in use and store in appropriate way- see handbook. Remind others in vicinity to stay clear of tools. If sawing branches from a tree ensure no one or property will be hurt or damaged when it falls. Use in designated area for tools | | | | | |
|---|---|--|---|--|---|
| Name | Folding handsaw | Bow saw | Secateurs | Peeler | Pen knife |
| |  |  |  |  |  |
| Use | Cutting branches up to 4 inches. | Cutting branches up to 4 inches– small serrated edge for seasoned wood, spaced serrated edge for green wood | Cutting branches smaller than your finger | Whittling small sticks, peeling bark. Training for knife work. | Whittling, peeling bark or cut string |
| Maintenance | Wipe with oily cloth regularly. Oil blade, keep blade in the handle when storing. Replace blades when necessary. | Wipe with oily cloth after use. Replace blades when blunt. | Wipe with oily cloth after use. Oil blade regularly. Sharpen using diamond sharpening stone. | Clear out any wood in the blade of the peeler. Wipe with oily cloth after use. Oil blade regularly | Wipe with oily cloth after use. Oil blade regularly. Sharpen using sharpening stone and water/oil after each session. |
| Carry | Blade folded | With blade guard on and hold like a handbag with blade facing downwards | Close and lock safety catch, hold blades in gloved hand next to leg with handles facing downwards | Hold blade handle facing up like a pair of scissors. | With blade folded and safety catch on. |
| Action | To start, hold the handle and pull the blade toward you creating a groove. Push and pull the whole length of the blade. Cuts mainly on pull and a little on push. | Remove blade guard. With a partner using a forwards and backward motion. Can be used individually with someone supporting the log so it stays firm. Cuts on the push and pull. | Open safety catch and use like scissors, using gloved hand to keep wood/vine/small branch sturdy | Blade facing away from you on the outside of your wood. | Twist safety catch to open blade, lock safety catch in place. Blade facing away from you on the outside of your body. Keeping wood between you and the knife. |

Natural play area and wildlife pond



Langtons Gardens and Fielders Field Project
2018-2023

Team work and partnership

Friends of Langtons group, Thames Chase volunteers and Staff, 2019



Langtons Gardens and Fielders Field Project
2018-2023

Team work and partnership

Green Streets volunteers and staff, wildlife volunteers,
Adults with Learning disabilities volunteers group



Langtons Gardens and Fielders Field Project
2018-2023

Team work and partnership

Big group tree and bed planting



Langtons Gardens and Fielders Field Project
2018-2023

Forest School and school outdoor learning



Langtons Gardens and Fielders Field Project
2018-2023

Forest School and school outdoor learning



Forest school and training

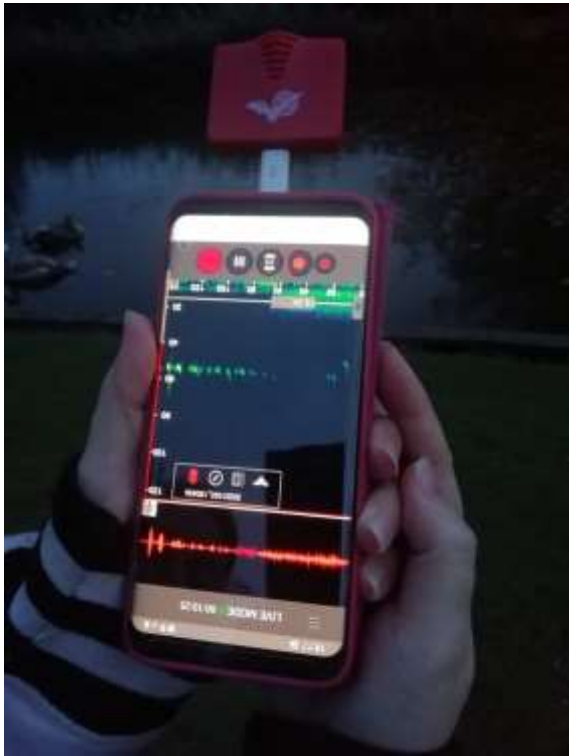


Langtons Gardens and Fielders Field Project
2018-2023

Outdoor learning and Adult survey training



Scout groups and bat walks



Langtons Gardens and
Fielders Field Project
2018-2023

Family Workshops



Community fairs and events



Langtons Gardens and Fielders Field Project
2018-2023

Community fairs and events



Langtons Gardens and Fielders Field Project
2018-2023

Walks and Talks



Langtons Gardens and
Fielders Field Project
2018-2023

Community celebrations



Langtons Gardens and Fielders Field Project
2018-2023

Games and socials to tackle social isolation



Langtons Gardens and Fielders Field Project
2018-2023

Outdoor exercise



Langtons Gardens and Fielders Field Project
2018-2023

Photography class and exhibition



Langtons Gardens and Fielders Field Project
2018-2023

Outdoor art facilitation

Langtons Gardens and Fielders Field Project
2018-2023



Wreathmaking



Weaving



Langtons Gardens and Fielders Field Project
2018-2023



Floral displays



Langtons Gardens and Fielders Field Project
2018-2023



Bats in Churches talk 06/08/2017



Staff inductions 18/10/2017

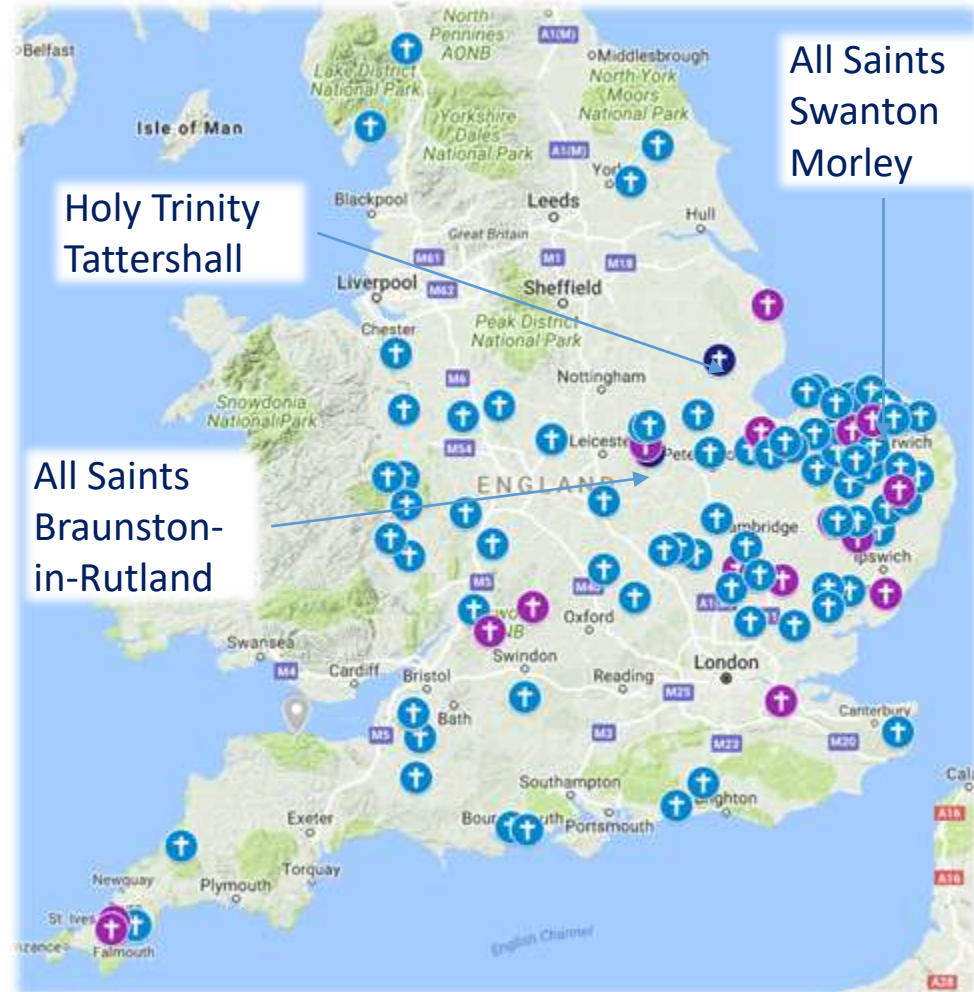


Bats in
Churches
Project
2017-2018



GAP ANALYSIS AND MAP MAKING

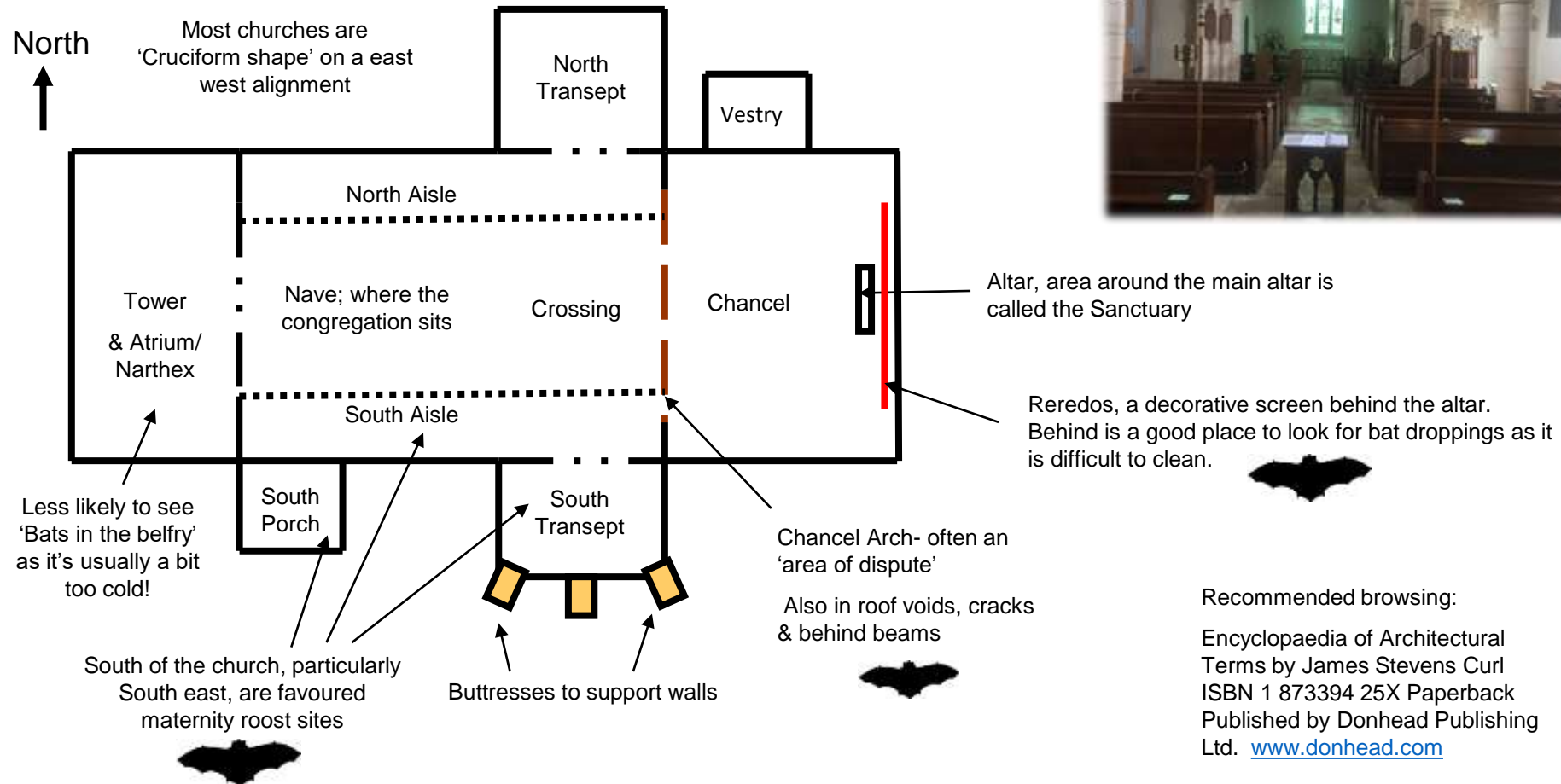
What the Bats in Churches project will do: 100 project churches



- ✖ Direct intervention
- ✖ Increased volunteer resources
- ✖ Improved guidance & support
- ✖ 20 most severely affected Churches:
 - ✖ Significant capital works to alleviate the issue
 - ✖ comprehensive bat population monitoring & In-depth consultation
 - ✖ Drafting project plans with PCCs this year.

Church construction & where do bats roost?

Bats can be found almost anywhere in churches, but here is some key information about where to look for bats

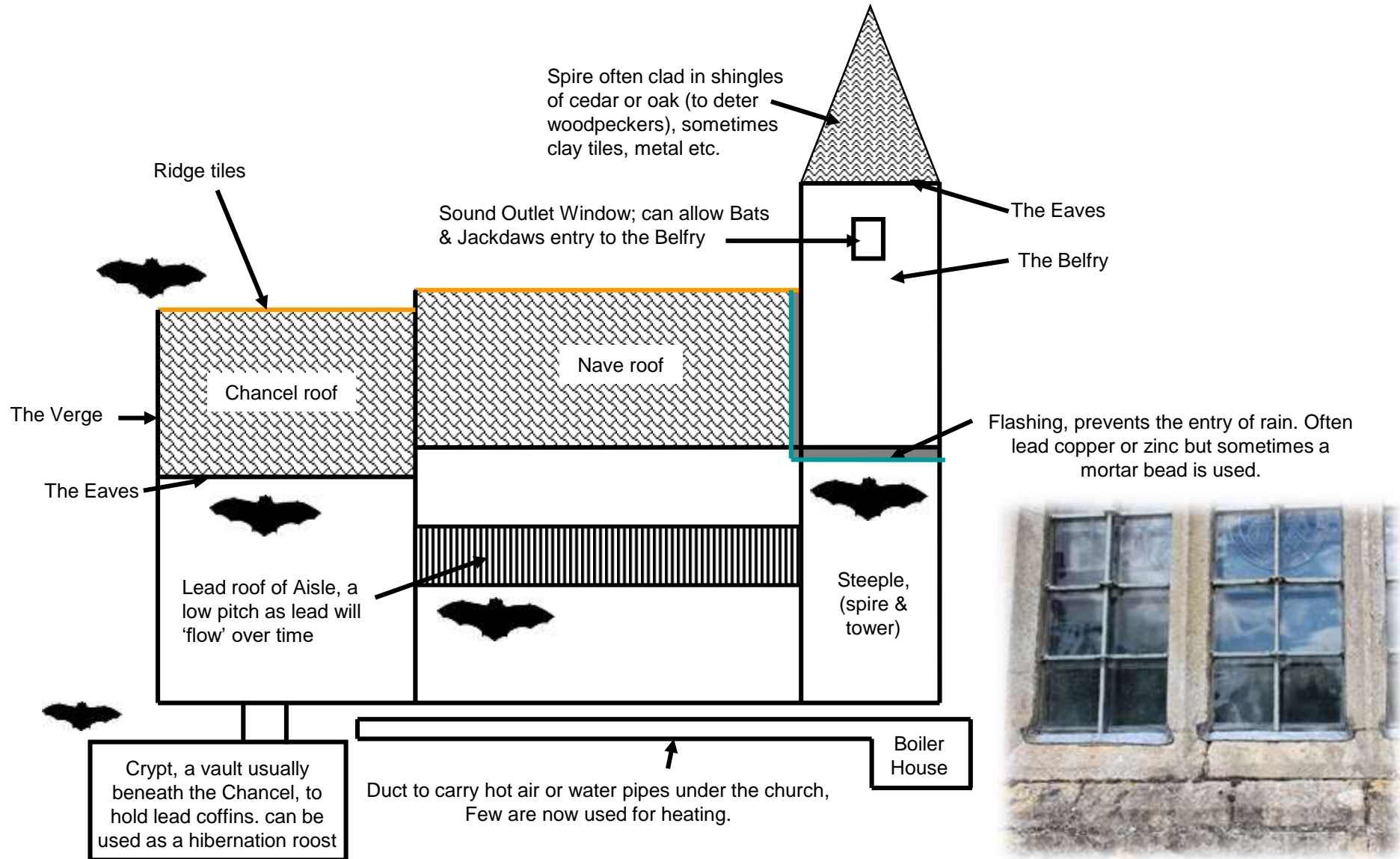


Recommended browsing:

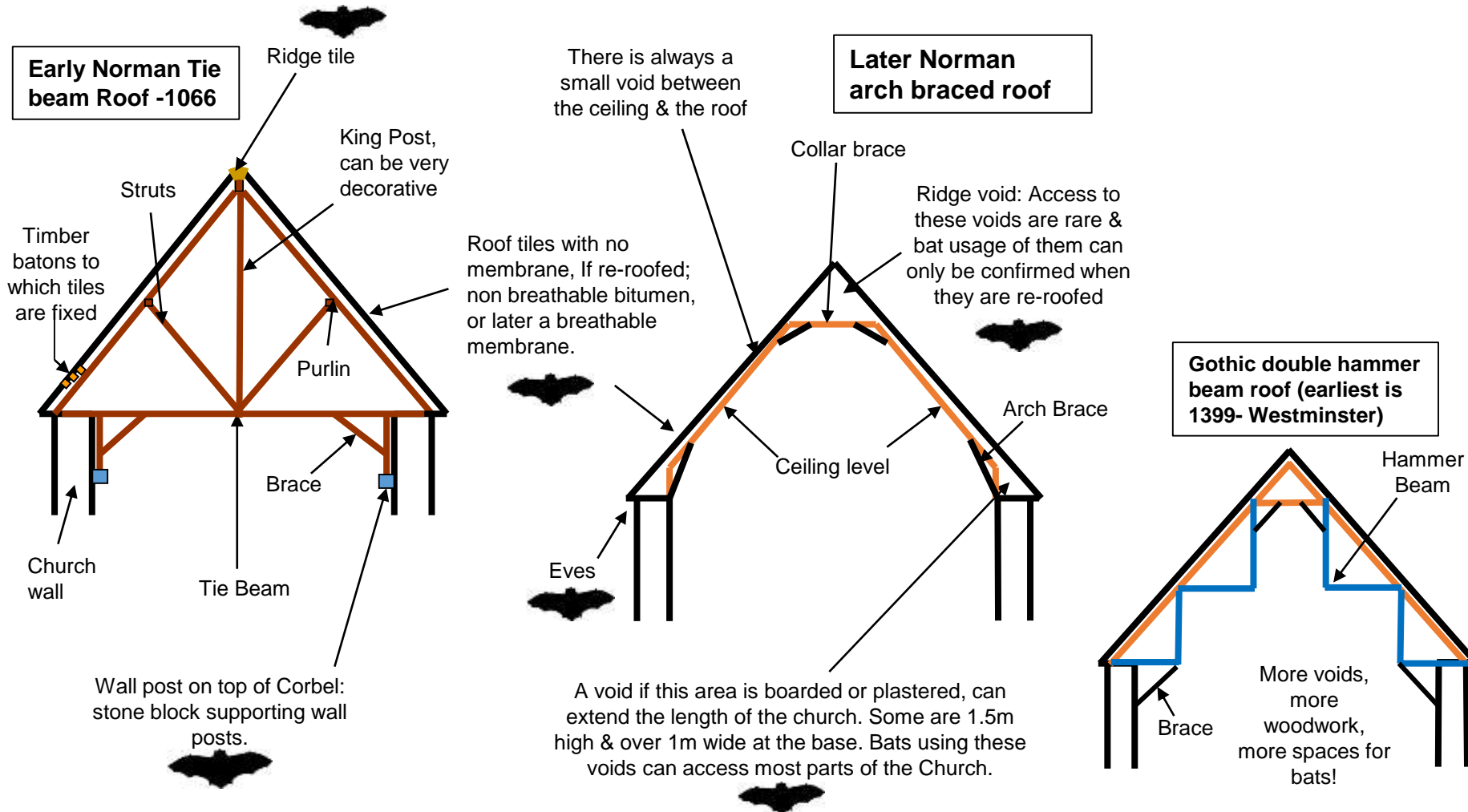
Encyclopaedia of Architectural
Terms by James Stevens Curl
ISBN 1 873394 25X Paperback
Published by Donhead Publishing
Ltd. www.donhead.com

Where do bats roost?

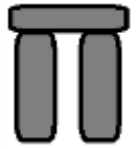
Side view



Where do bats roost? Rafters



Historical timeline of UK, and Religious Building Design- Bats in churches project



✎ **Prehistory:** pre AD 43. earliest known humans 900,000 years ago. **Neolithic and Bronze Ages:** 6000BC - 800BC. **Classical Antiquity** 8th century BC - 5th century AD, culture centred on the Mediterranean Sea. **Iron Age:** 800BC - AD 42. **Pagan Gods** of the earth were worshiped outdoors by **Standing stones**, special trees like Yew, upturned tree roots, lakes, manmade tombs and hills.

✎ **Roman Britain:** AD 43 - AD 410. Written history begins. **Late Antiquity** 3rd–7th C. Christianity is a minority faith 1st -4th C with a stronghold in Celtic Wales. A few **Roman Temples** were built for Roman gods of the sky .

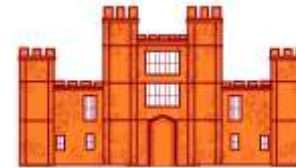
✎ **Early Medieval / Dark Ages:** 5th C – 1066. **Vikings:** 430, **Anglo-Saxons:** mid 5th C, Viking raids continued. **Christian Faith** officially arrives 597 AD. Saxon lords built small, mainly **Timber and Thatch Chapels** (not in Cruciform), on old Pagan sites near populations (often keeping the yew trees and stones). Each household had use of common land, and a strip of land to work in an '**Open Field System**'. People go to church a few times a year. Outside of Europe, **Islam** starts in Mecca 7th C and has a cultural 'golden age' 8th- 13th C.

✎ **Norman Britain - 1066 - 1154.** Norman Conquest of 1066. The **feudal system:** all land is owned by the king, who granted it to lords, whose tenants (vassals) swore loyalty and military service to work the land. Lower Peasants (serfs) could not leave the land, and needed permission to do anything. Larger **Romanesque churches**, mainly in stone and with rounded arches, were built by landowners & handed over to monasteries in the 12th C.



✎ **Medieval / Middle Ages:** 1154 - 1485. **Gothic Architecture** 1200-1520 (also revived 1740 - early 20th C); vertical, pointed arches, rib vaults, flying buttresses, large windows, & elaborate tracery. **The murder of Thomas a Becket** 1170. **Black Death** 1346–1353 caused the population of eastern England to crash. A shortage of labor turns landowners to profitable sheep farming, building many large Perpendicular Gothic 'wool churches' with riches.

✎ **The Age of Discovery:** 15th - 17th C. Europeans explored the world by Sea, and much common land became private and enclosed. **The Renaissance** 15th -17th C, meant "rebirth" of interest in science, and ancient Greece and Rome. **Tudors** - 1485 – 1603 built crenelated castle/military style churches. **The Christian Reformation:** 1520-1700, Martin Luther's 95 Theses rejected the pope and divided Christians. **Henry VIII** 1536 broke England from the Catholic Church, and sold monasteries. **Edward VI**, 1547 – 1553, Henry's Protestant son, stripped churches of their artefacts. **Queen Mary** 1516 –1558, Edward's Catholic half-sister; removed English Bibles, restored Latin mass. **Queen Elizabeth 1st** 1533 - 1603, Mary's sister, restored Protestant faith, established Church of England (Anglican) with Catholic and Reformed elements, Church finery and bell ringing - disappointing extreme Protestant Puritans.





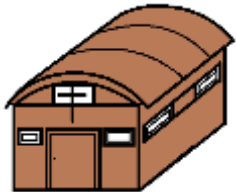
🦇 **Stuarts / English Civil War and Revolution: 1603 - 1714.** **Charles I** 1625 -1649 married a catholic – a secret minority faith. **Civil War** 1642–1651. 1649 the king was executed. **Charles II** 1649 –1651, **Oliver Cromwell's government** 1653 –1658, sought simplicity, social conservatism and no idolatry. When he died they recalled **Charles II** 1660- 1685. Theatres, Maypoles & Christmas resumed, Anglican Church of England was re-established. **Baroque** 1666- 1720 opulent style was popular for the rich. **The Great Bubonic Plague** 1665 -1666, **The Great Fire of London** 1666, and **The Franco-Dutch War** 1672–78; brought depression for the poor. Villages move away leaving churches in the middle of fields. **James VII and II** 1685 -1688 (Catholic), Protestant heir **William III of Orange** invaded 1689- 1702. **The Act of Toleration** 1689 recognizes many faiths (not Catholics). Church building declines, except for **Nonconformist Protestant Chapels**. Medieval churches neglected.



🦇 **Empire and Sea Power: 1714 – 1837 and Long Nineteenth Century: 1789 – 1914.** **Georgian Architecture** 1700-1840, **Georgian Churches** were symmetrical classical temples, of early Greek and Roman or 'Palladian' style, in 'Arcadian' landscapes. The **Industrial Revolution** 1750 - 1900, brought great change to this idyllic peaceful landscape. **The Roman Catholic Relief Act** 1829 brought back the Catholic Church again. **Victorian Britain** 1837 - 1901. **Gothic Revival**: 1740 - early 20th C, led by the Oxford Movement and the Cambridge Camden Society. **Gothic style churches** with more pointed arches, built in growing industrial towns, as Georgian churches were thought to be 'too pagan'. Many medieval churches had architectural features removed. The new handmade **Arts and Crafts** 1860 – 1920 and the naturalistic **Art Nouveau movements** 1885- 1914 rejected the urban growth and mass manufacture of the industrial revolution .



🦇 **20th Century Modern: 1900-2000.** **World Wars**: 1914 – 1918 and 1939 - 1945. **Modernity** 1900-1960 and wartime austerity favored **Prefabricated Churches**, and fast functional design over ornament, such as the **Bauhaus** German style 1919-1933, of mass produced, abstract, and angular forms. **Mid-century design** 1933 to 1965 added streamlined organic shapes and materials to sharp clean lines. **Cold Wars** 1945 – 1991, brought **Secularization** and **Postmodernity** which grew rapidly from 1960-1990. Post modern scepticism rejected scientific or religious rules and explanations of reality in favour of personal opinion and experience. 80% of Britons in 1950 said they were Christians, only 64% did so in 2000. In 1985 there were only half as many parish clergy as in 1900. Many eastern England medieval churches made redundant in the 1960s and 1970s and placed in the care of charitable trusts, such as the Churches Conservation Trust. Some new churches were built in the emerging post-war towns and expanding suburbs, and some roof replacements with asbestos.



🦇 **Now: 2000 - onwards** The Church of England has over 12,000 listed churches (most of which are medieval). Grants from publicly funded schemes account for about 36% of the annual cost of parish church maintenance.

Common pipistrelle

Identification sheet

- ✧ Our smallest & most common bat
- ✧ Roosts in buildings, behind hanging tiles or boarding & in cavity walls & also uses trees
- ✧ Erratic bouncing flight just above head height– twisting & turning around buildings, streetlights, trees & hedges.
- ✧ Emerges around 15-20 minutes after sunset
- ✧ Small bat, weighs 3-8g, Wingspan, 19-24cm
- ✧ 46 kHz Sounds like: Medium 'smack', wet slappy sound



Greater & lesser horseshoe

- ✧ Complex horseshoe-shaped noseleaf related to their particular type of echolocation system.
- ✧ Hang free with wings enfolding their body (fully if lesser, belly and chest poking out if greater).
- ✧ Originally cave dwellers
- ✧ Greater horseshoe bats feed mainly by low- flying hunting
- ✧ GH Wingspan: 35cm – 40cm, (small pear-sized) LH: 20cm – 25cm (plum-sized)
- ✧ GH: 82kHz, LH: 110kHz. a series of continuous warbles



Social swarming



Bats in
Churches
Project
2017-2018

Polytunnel build

Personal Projects
2003 - 2023



Art and design projects

Lisa Lock 2003 - 2023

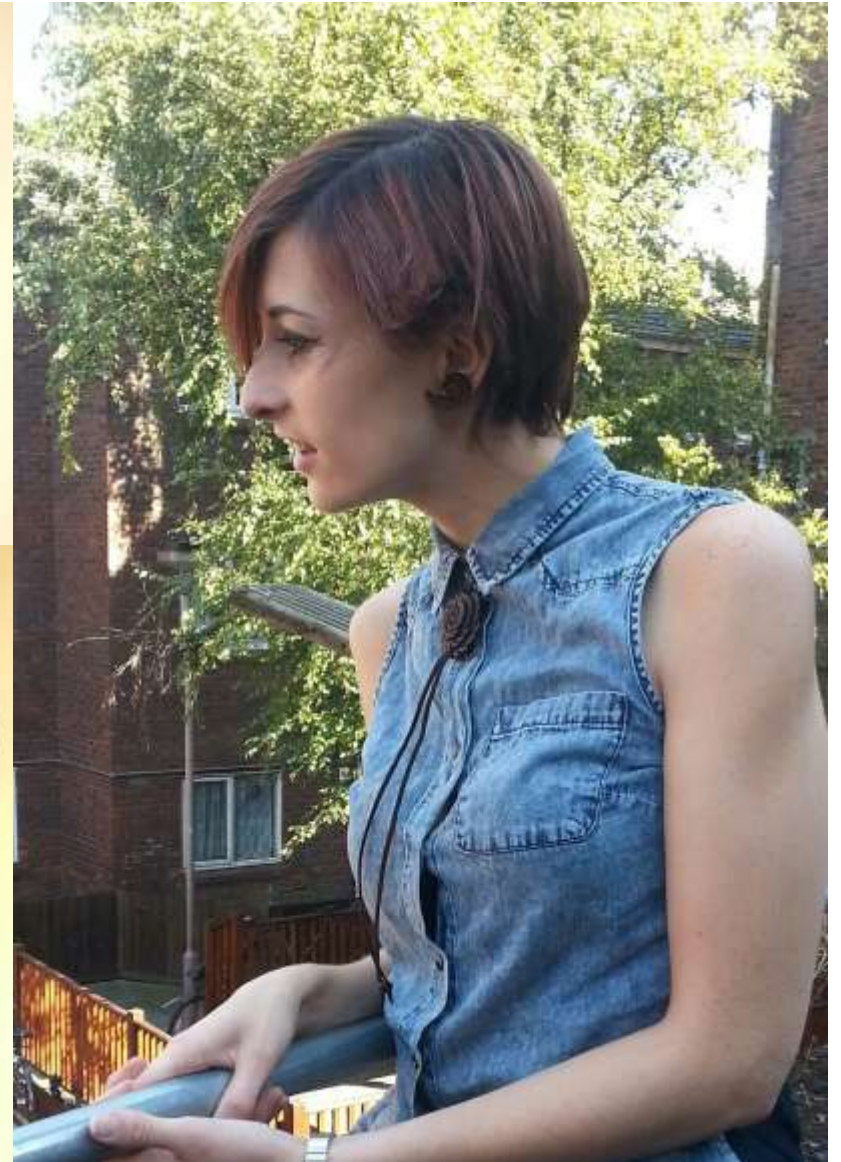
Jewellery



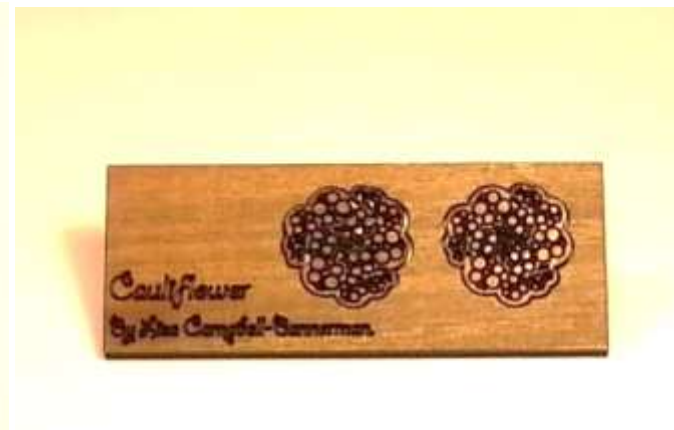
Laser Cut Walnut Jewellery



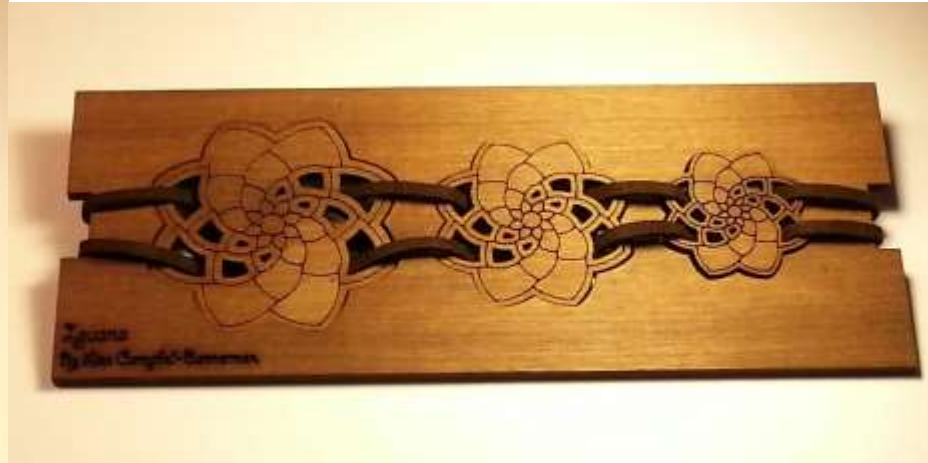
Wings



Cauliflower



Iguana



Butterfly



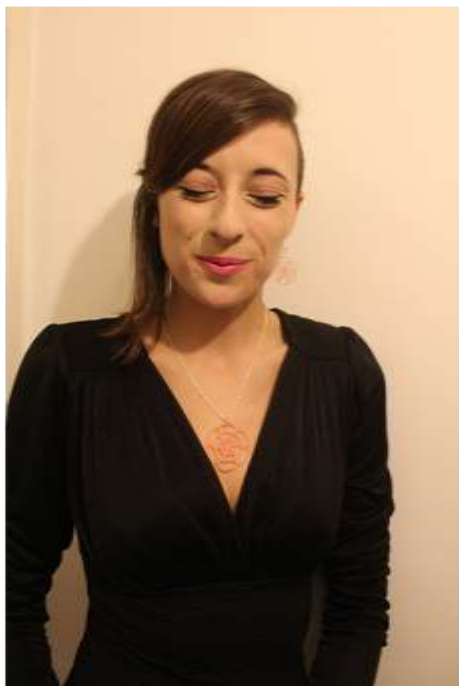
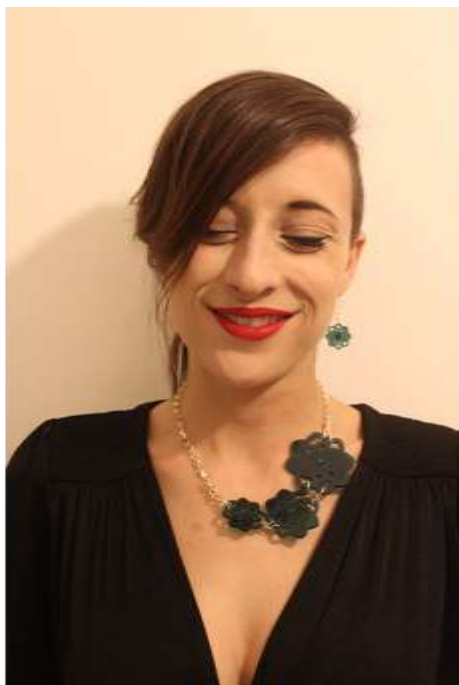
Laser cut walnut jewellery

Regular stalls including
Spitalfields Market

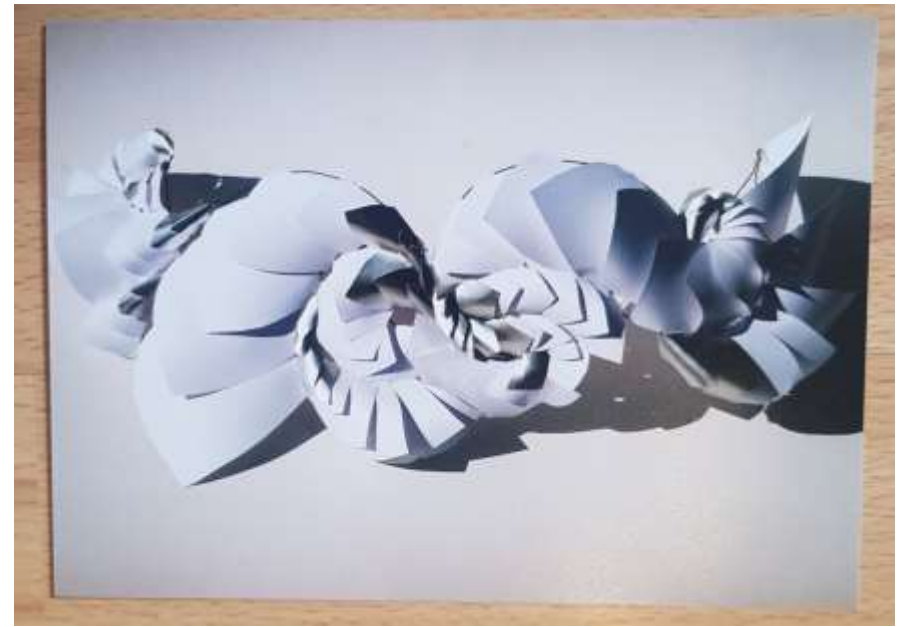


Laser cut acrylic and silver jewellery

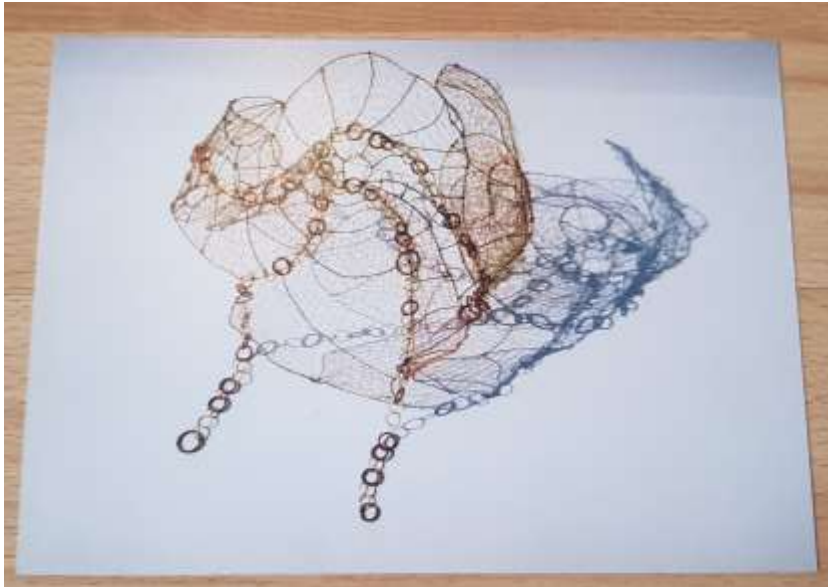
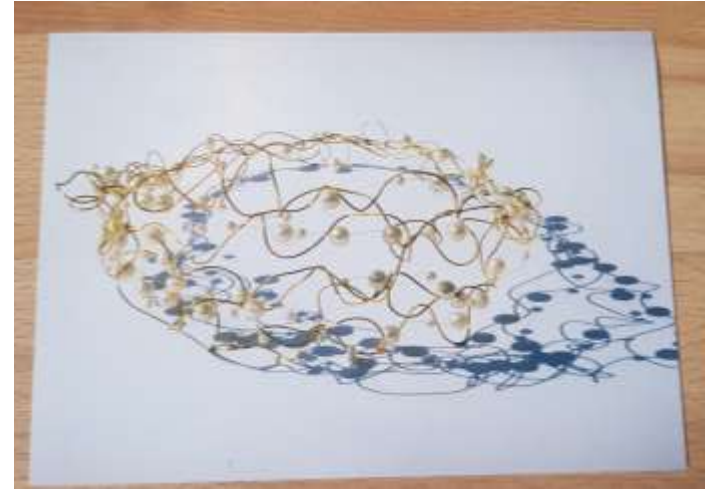
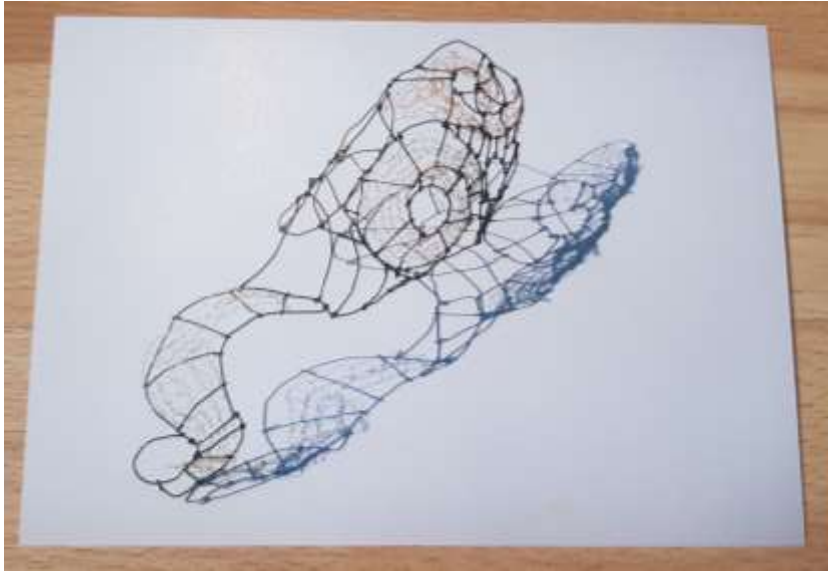




Jewellery



Jewellery



Under water jewellery



Leatherwork



Leatherwork



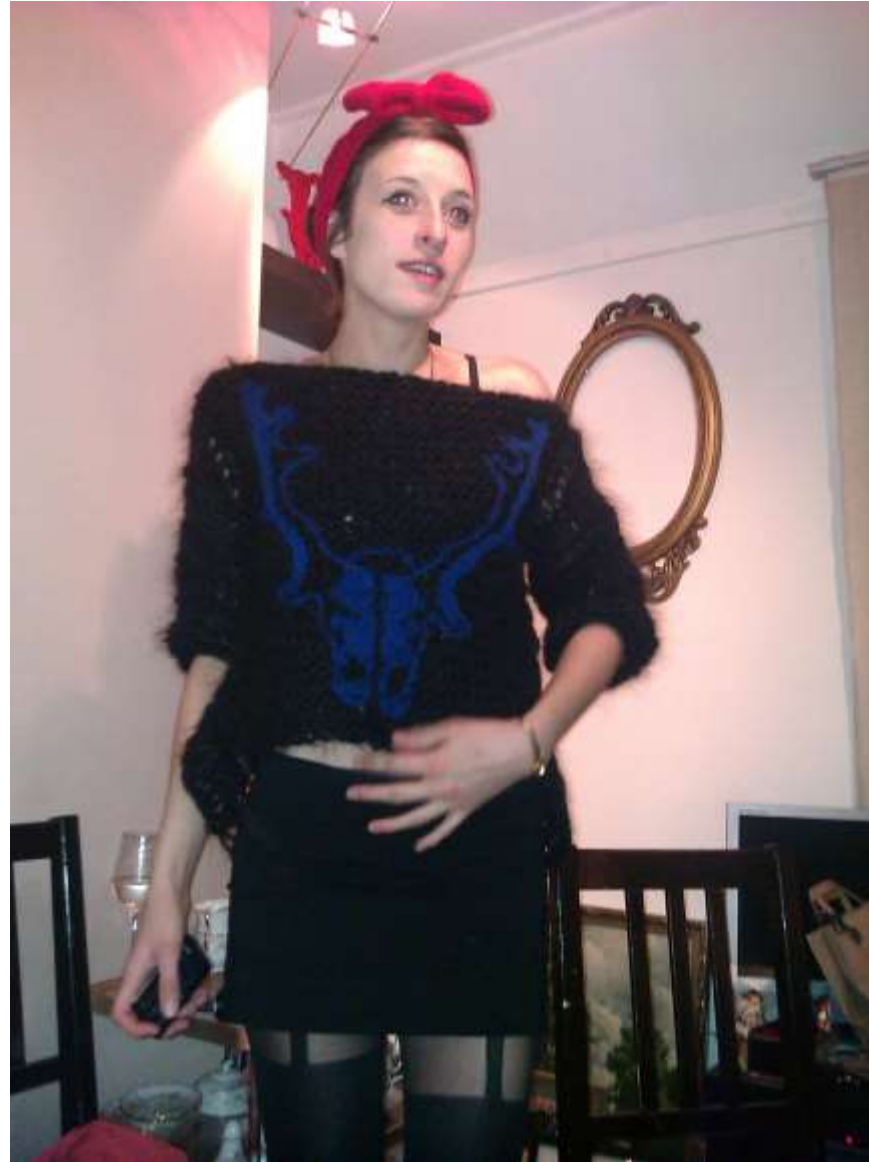
Millinery



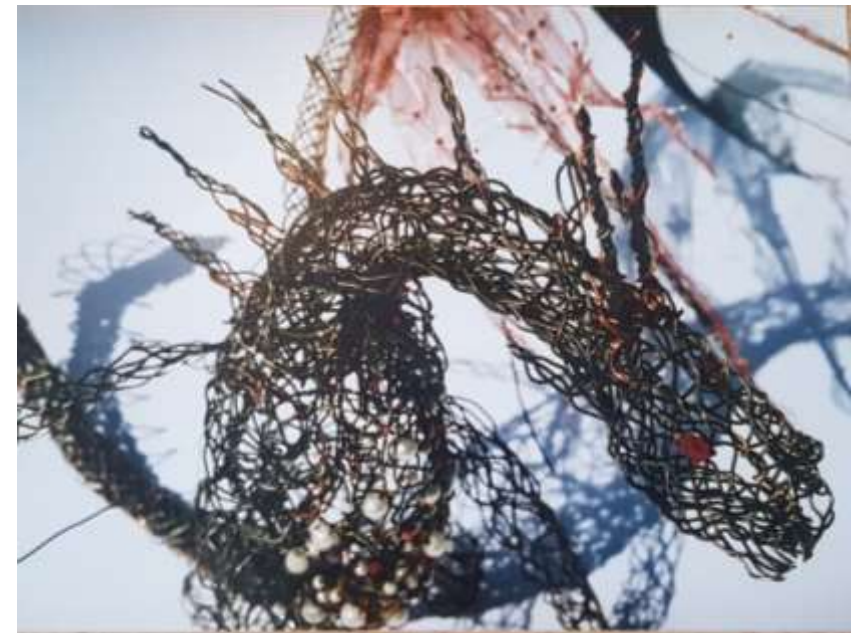
Dressmaking



Dressmaking



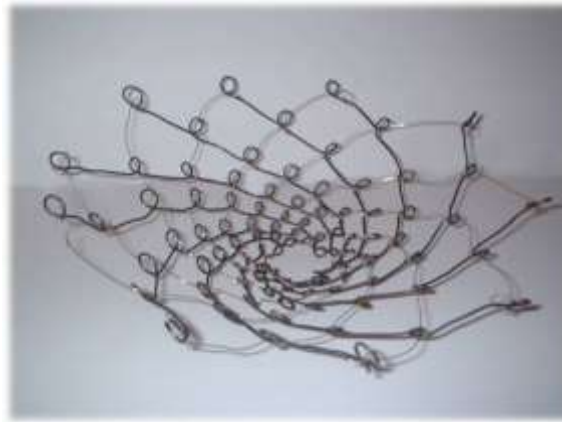
Wire sculpture



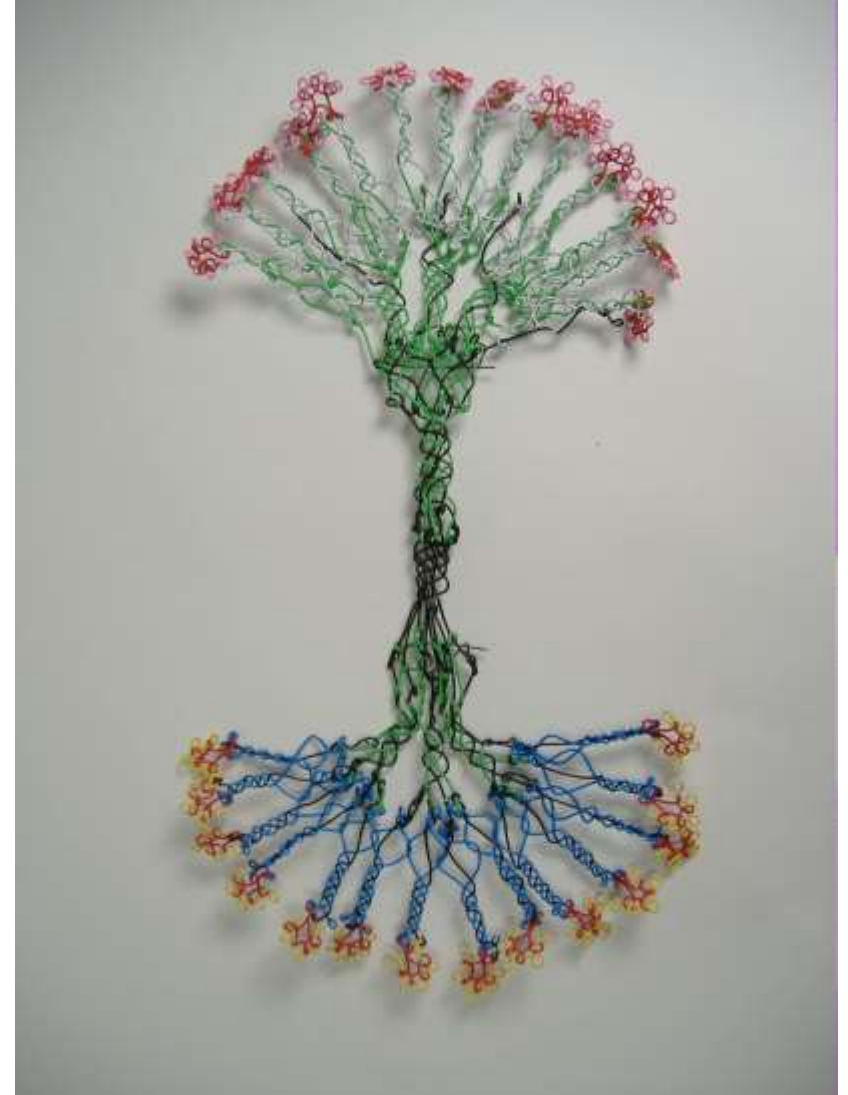
Wire sculpture



Wire sculpture



Recycled sculpture



Pigeon project

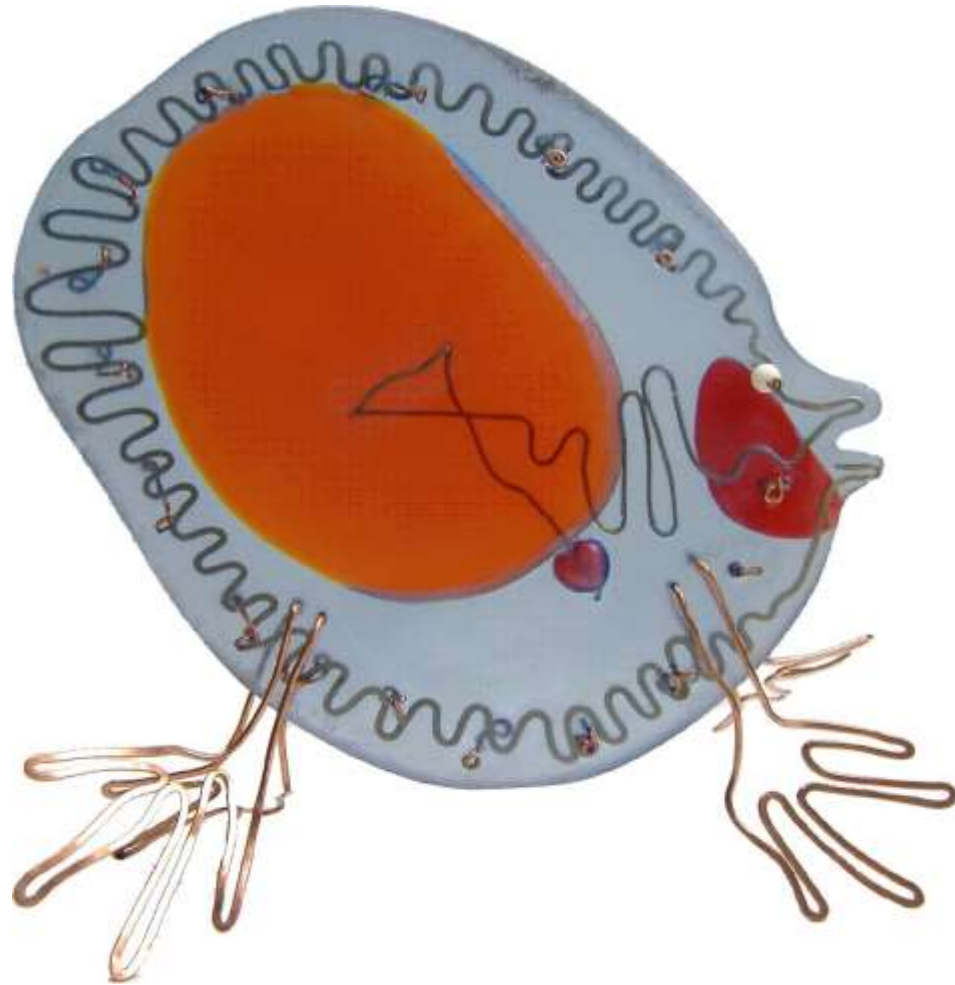


Sea sculpture, Recycled materials



Sea sculpture

Recycled materials



Sea sculpture

Recycled materials



Laser cut decorations



Embroidery



Embroidery



Embroidery



Quilting



Macrame



Knitting





Knitted animals

Dog and Octopus private commission
Frog for Boden



Knitted animals

Pheasant for Boden

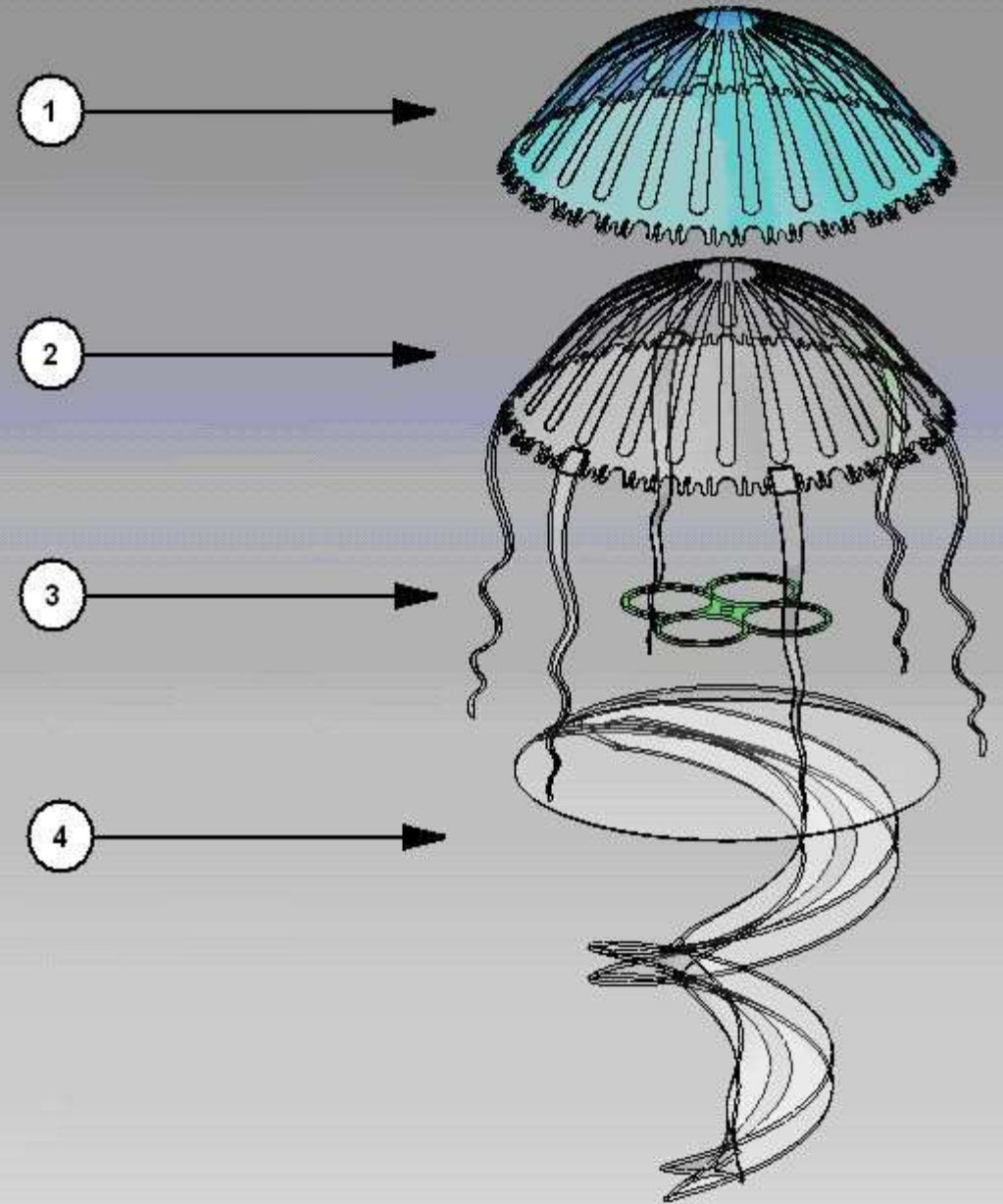


Yarn bombing as part of Graffiti life's Grolsch Street art project

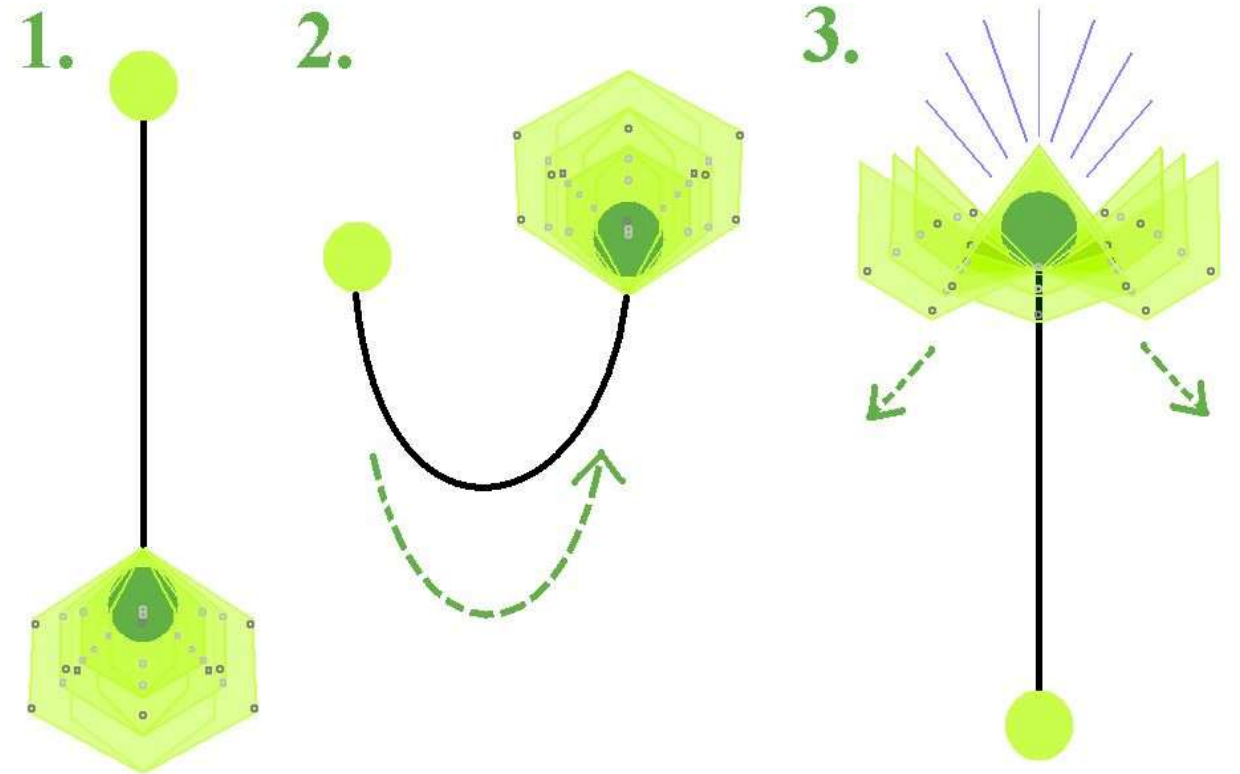
Knitted customised bottles for part of the 400th birthday celebrations for Grolsch, in Shoreditch, by the Graffiti Life Company
<https://www.campaignlive.co.uk/article/watch-graffiti-artists-build-giant-installation-400-grolsch-bottles/1338358>



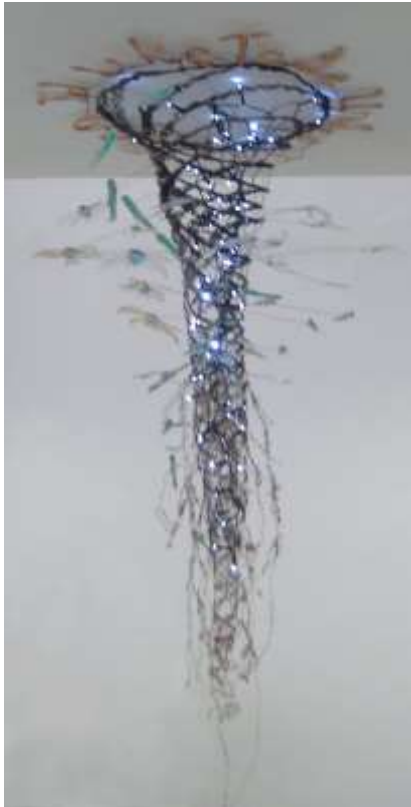
Computer aided design



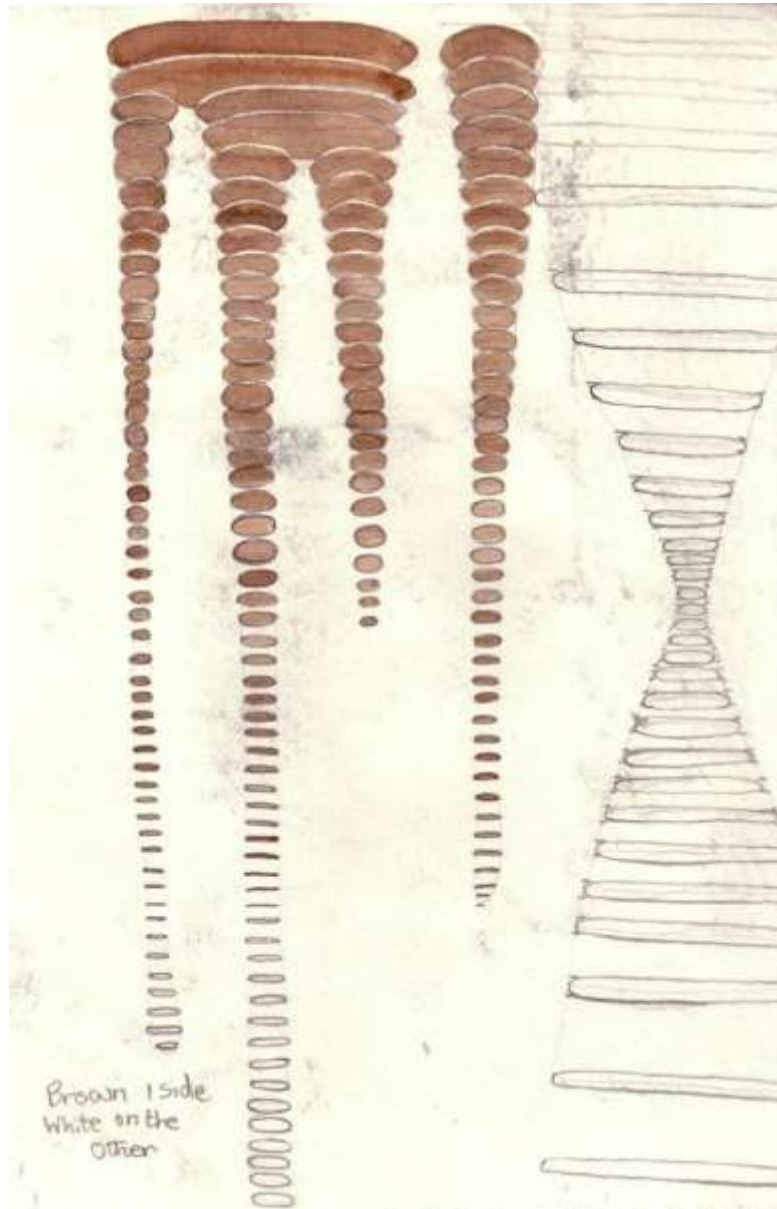
Light sculpture



Light sculpture

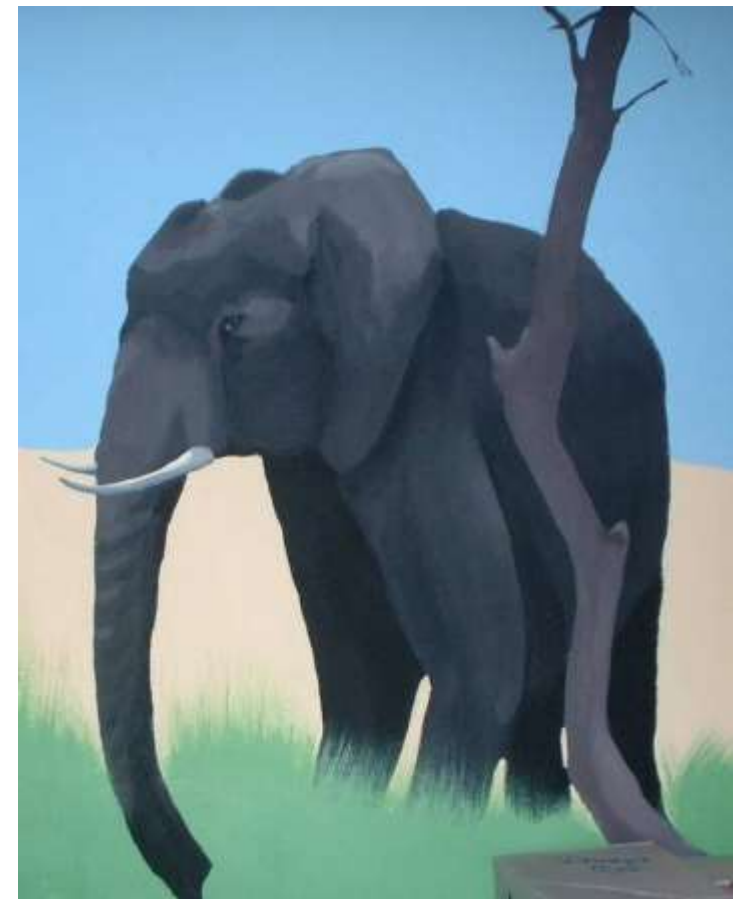
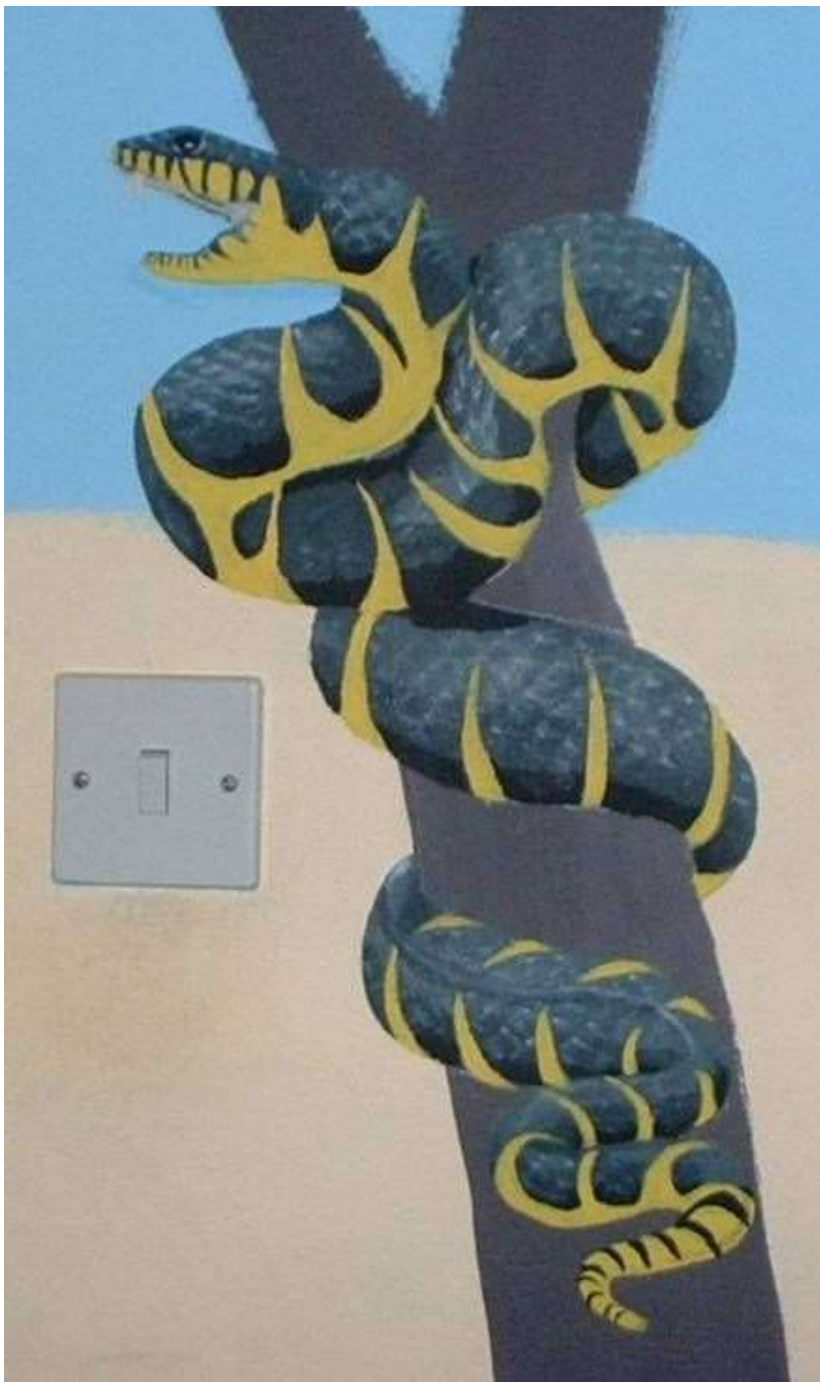


Hanging sculpture



Painting





Sketching



Engineering teaching projects



Baking



Webpage

