

### Getting Here

Westbrook Hay is situated on the hills to the south of the Box Moor Trust Centre on London Road, Hemel Hempstead (A4251). Westbrook Hay can be reached from the A4251 (London Road), running between Hemel Hempstead and Berkhamsted. Close to the Box Moor Trust Centre on London Road, turn into Westbrook Hay drive (signposted for the Box Moor Trust Old Barn). Follow the drive all the way to the top of the hill, then take the first track on the left (just before Westbrook Hay School entrance). This will lead you into the car park next to the Old Barn Education Centre.

### Car Parking

The car park by the Old Barn is usually open during daylight hours. An alternative car park can be found at the base of the hill, at the start of Westbrook Hay drive. Park here and walk up through the meadows to the Old Barn and the starting point for this walk.

### Users of Wheelchairs, Pushchairs or Mobility Scooters

The boardwalk is the main section of this walk suitable for wheelchair and pram users. The visitor will have to assess the suitability of the rest of the walk but this will depend on weather conditions as some of the ground is uneven with puddles and mud after rain. If the section between points (3) and (4) on the map seems unsuitable, please try continuing along to the end of the boardwalk, through the gate and into the large field. At the pond, bear right to a large gate leading back into the wood to re-join the walk at point (4). Please contact us for more advice on alternative routes. Benches are situated at several points around the route. A mobility scooter is available on loan from the Box Moor Trust Centre for use on this walk. Please ring in advance to arrange. Tel: 01442 253300.

### Safety

When carrying out the activities suggested in this leaflet, please take great care. In particular, do not enter our pond dipping areas. It should be possible to observe the ponds from outside these areas. The Box Moor Trust cannot accept responsibility for the children under your care.

### Care of the Box Moor Trust Estate

Where livestock are grazing, please keep dogs on a short lead or at heel. If your dog fouls, please bag and bin it or take it away with you. More information can be found in our leaflet 'Dogs and the Box Moor Trust'.

Please also:

- Close all gates.
- Do not leave litter or light fires.
- Do not pick plants, flowers or fungi.

Email: [education@boxmoortrust.org.uk](mailto:education@boxmoortrust.org.uk)

# Amazing Adaptations

**A short, easy walk for families around the woods and meadows of Westbrook Hay, including activities to highlight interesting animal and plant adaptations.**

***Adaptations are physical or behavioural characteristics that have evolved over time to help creatures to survive, for example, to find food, to protect themselves or to find a mate.***

These activities are designed to appeal to as wide an audience as possible. Take on as many or as few as you wish or just enjoy the walk!

**If you have enjoyed this walk, why not explore further on our Orange, Blue, Green or Red walk routes? We produce seasonal 'I-Spy' inserts for children to accompany the Orange walk.**

**Please visit our website:  
[www.boxmoortrust.org.uk](http://www.boxmoortrust.org.uk)**



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## Swallows - Migration

Have you noticed the swallows roosting in the Old Barn? You can see them swooping in and out and you may be able to spot their cup-shaped mud nests over the entrance or in the shelter. These birds spend each summer here raising their young but, in the autumn, they will fly thousands of miles to South Africa, covering up to 200 miles each day. They migrate to the Southern Hemisphere for the winter because it is much warmer and there will be many more of the insects that the swallows depend upon for their food. Then, when winter begins there, they fly back, often to the same nests that they occupied the previous year. The disadvantages of such a long and hazardous journey must be outweighed by the abundance of food they find down south.

## Nettles and their Copycats - Self Defence and Mimicry

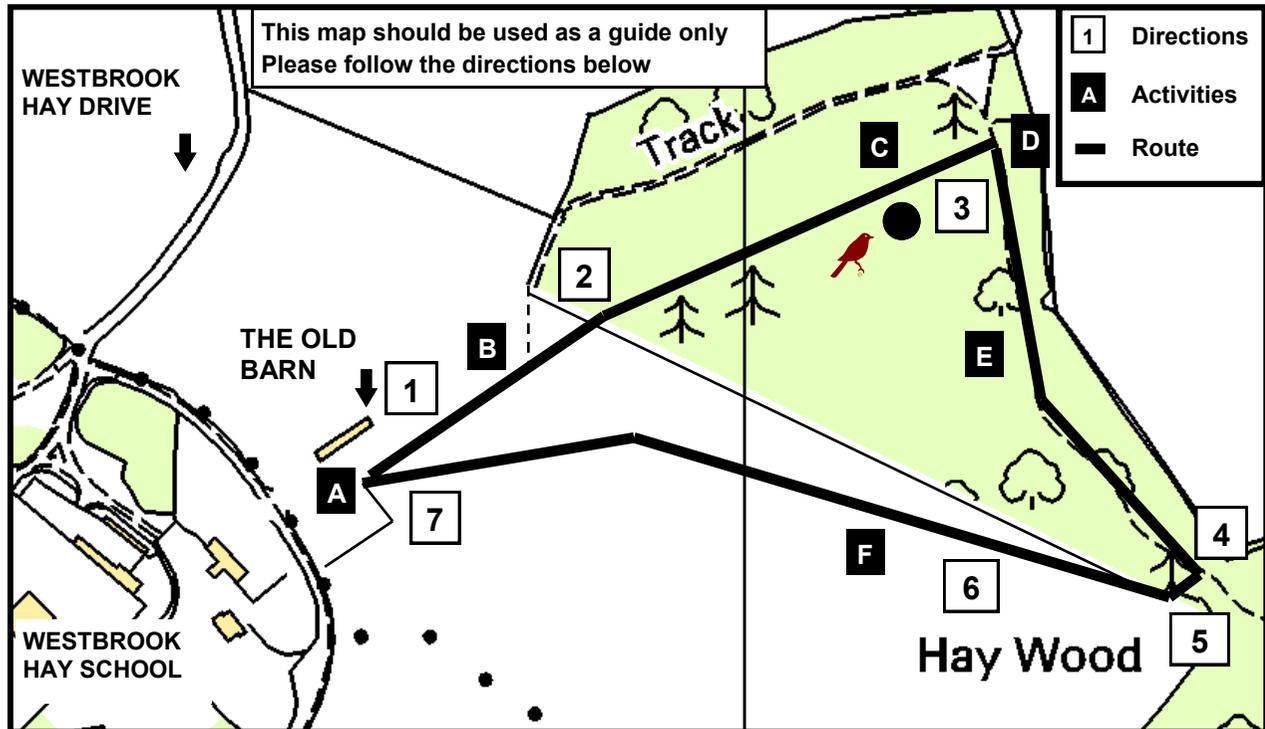
Walking along towards the wood, watch out for nettles on either side of the boardwalk! These plants are a vital food source for insects but many of us see nettles as irritating - both literally and metaphorically. The hairs on the edges of the nettle leaves cause the damage: the glassy hair tip breaks off at the slightest touch, the sharp edges cut our skin and, at the same time, an acidic mixture squirts into the wound. No wonder it hurts! Grazing animals also tend to leave nettles well alone so this is a very effective adaptation; so effective that other plants mimic the nettle's appearance. Look to the sides of the boardwalk (especially in the woods) for dead nettle (white flowers) and yellow archangel (yellow flowers), two plants with leaves that look very similar to the nettle. These harmless copycats cannot sting but many animals cannot tell them apart from nettles and so avoid eating them. The mimics get the protection without the trouble of developing any weapons!

## Dragonflies - Predators

Watch over the fence towards the pond in Hay Wood. In summer, you may see dragonflies whizzing through the air above the water. As larvae, these insects spend years in the pond but leave as adults for a period of about ten weeks. During this time, they will mate and lay their eggs back into the water. These adult dragonflies are powerful fliers and fierce predators. Their huge compound eyes provide excellent vision, their jaws are strong and their large wings allow them to fly fast and even hover to catch their prey.

## Birds - Nest Building

As you turn off the boardwalk, have a look at the walkers' shelter to your left with its walls and roof constructed of woven branches. This is not a skill unique to humans, however, as many birds are able to weave small twigs and grass into strong nests using only their beaks and feet. They then collect soft materials for the inside to keep their eggs safe and warm. Why not find some thin twigs and grass and see if you can weave a nest? If you don't have a beak, you can always use your fingers! Return to the bridleway and walk through the woods, looking out for the bird boxes we have put up.



## Directions

From the Old Barn (1), proceed along the boardwalk and follow it into the wood (2). Enter the wood and continue along the boardwalk as it wends its way through the trees. To the right, you will pass a bird feeding station and, a little further along, a small woodland pond. Shortly afterwards, turn right onto the bridleway that crosses the boardwalk (3). *From this point on, the terrain may be subject to changing weather conditions and a flat, stable surface cannot be guaranteed. Please see the back page of this leaflet for an alternative route avoiding this bridleway.* Follow the bridleway through the woods until it crosses a second path at right angles (4). Turn right and pass through the kissing gate into the meadow beyond (5). Bearing right, walk uphill, keeping to the edge of the wood (6). After a time, you will see the Old Barn. Go through the black metal gate into the car park (7).

## Nuthatch - Feeding

This slate-grey bird hops up and down the trunks of trees - it is the only British bird that can climb down trees head-first. Nuthatches nest in holes in trees and use mud to plaster up the entrance until it is just big enough for them to get in and out. Like many birds, the nuthatch's beak is specially designed for the way it feeds. This also gives the nuthatch its name: it wedges nuts into crevices in the bark and hammers them open with its sharp, hatchet-like bill. You might see them at the bird feeders and hopping up and down on tree trunks in the wood.

## Butterflies - Staying Alive

In the meadow, look out for butterflies and moths. Luckily for us, these beautiful insects are often easy to see but this also means they are visible to predators. Many have ways to avoid being eaten though: Peacock Butterflies have large wing spots which are flashed as pretend 'eyes' to frighten off attackers whilst Six Spot Burnet Moths have red wing spots to warn of an unpleasant taste and can fall to the ground, feigning death, when disturbed.