



**Beech**



**Ash**



**Oak**



**Sycamore**



**Birch**



**Copper Beech**



**Poplar**



**Willow**



**Alder**



**BLenheim PALACE**



# **THE TREE TRAIL**

## The start of the trail



**PLEASE REMEMBER TO WATCH OUT FOR TRAFFIC WHEN WALKING ON ALL ROADS**

Stand outside the Palace gift shop on the grass underneath the large trees. Look carefully at the leaves on these trees.

- 1] How many green leaf trees can you see in this area by the picnic tables?
- 2] How many copper coloured leaf trees can you see?
- 3] Compare the leaves you see with the pictures of leaves towards the end of this quiz. What kind of tree is this?

Did you know?

The trees growing outside the Palace gift shop can grow very tall, sometimes reaching 40 metres in height. They are often used in Parks because they grow into large, rounded spreading trees.

These trees are deciduous trees, this means they lose their leaves in winter. Deciduous trees have leaves in many shapes and sizes; they can be long and narrow like the leaves of a **Weeping Willow**, leaves can be triangular or heart shaped like the leaves of a **Lime** tree; some leaves have smooth edges, like the leaves of a **Beech** tree and some have jagged edged leaves like a leaf. The **Horse Chestnut** tree has a compound leaf of 5 segments coming off one stalk. Evergreen trees keep their leaves in winter. Some evergreens have broad leaves like the **Holly** tree but many evergreen conifers have needles instead of leaves.

Walk on until you get a clear view of the island. Look carefully at the trees on the small island in the Lake.

Trees grow into many different shapes. There is the oval of the Poplar Tree; the triangle of the Fir tree and the Beech tree which has a rounded shape.

- 4] There are a number of different shaped trees on this island in the lake; some rounded, pointed, tall and short. Put a circle around the tree pictures below whose shapes you can see on the Island.

Find the following words in the word search:

Cedar	Beech	Alder	Weeping Willow
Sycamore	Cypress	Oak	Lime
Elm	Pine	Yew	Silver Birch
Pine	Walnut	Rowan	Apple
Plane	Hazel Ash	Horse Chestnut	Hornbeam
Poplar			

P	I	N	E	O	A	K	E	S	R	O	H
C	A	C	W	A	L	N	U	T	R	H	C
E	L	Y	L	E	L	M	C	D	O	A	H
D	D	P	I	B	E	N	I	P	W	Z	E
A	E	R	M	Y	E	W	E	F	A	E	S
R	R	E	E	A	P	P	L	E	N	L	T
B	R	S	W	E	E	P	I	N	G	H	N
E	A	S	W	I	L	L	O	W	G	I	U
E	L	A	S	H	R	E	V	L	I	S	T
C	P	P	L	A	N	E	H	C	R	I	B
H	O	H	O	R	N	B	E	A	M	J	L
A	P	S	Y	C	A	M	O	R	E	K	M

## The Answers

- 1] Five
- 2] One
- 3] Beech trees
- 6] The hole may have been caused by a branch falling off and by animals burrowing into the wood or by disease.
- 7] Colours = reddish brown and dark green.
- 9] Poplar trees are usually tall; have thin trunks, small grey green leaves.
- 10] Oak, Beech, Willow.
- 11] The oldest Oak tree is approx 150 years old.
- 12] The beech trees have been protected with wire cages around their bases.
- 13] The protection is to try and stop deer nibbling the young trees.
- 15] The Horse Chestnut tree has a very large spread of branches and a thick trunk. The leaves have a candle like shape. Conkers.



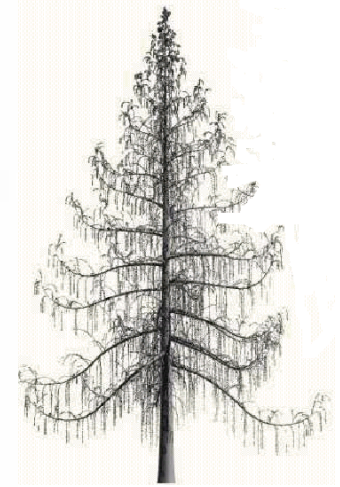
This is a view of the Lake in winter. You can see the Beech trees in the background have lost their leaves. The large rounded blue Atlas Cedar trees, the Fir trees and the Cypress tree on the far side of the lake are still green.



Lombardy Poplar



Leylandii



Larch



Weeping Willow



Ash



Beech



Oak

5] Leaves come in all different shades of green and tree trunks come in all shades of brown and grey. What colours can you see on the island? Mark the colours you can see on the colour wheel below.



Did you know?

Some of the trees on the island are conifers. These trees can have the traditional Christmas tree shape. They have cones rather than flowers and pines instead of leaves and they do not lose their pines (i.e. leaves) in winter.

Walk on towards the Grand Bridge. If you look towards the left side of the bridge there is a tree on the far side of the lake that has a large hole in its trunk.

6] Suggest two reasons why this tree may have a hole in its trunk.

Did you know?

This tree is now a film star. It was used in one of the Harry Potter films.



Lime



Plane

19] Stand beneath a Lime tree and look up at the branches and leaves. Then stand underneath a Plane tree and look up. Which tree lets through more light? Why do you think this is so? {Clue: look at both set of branches and see how they have grown.}

Trees can often be recognised by the bark on their trunks. An Oak tree has rough bark as does the Horse Chestnut Tree. Some tree trunks are smooth like the Beech tree.

20] How would you describe the bark on a Plane tree and how is it different from the bark on a Lime tree?



Beech



Oak



Lime



Plane

A tree's trunk is very important. It gives the tree strength. A tree's trunk will generally grow wider as the tree grows taller, so that the tree has more support as it grows. Nutrients are passed up the new wood of a tree. If a tree's trunk is damaged or badly nibbled by rabbits or squirrels, the tree can die or grow more slowly than it was meant to.



Poplar



Birch



Western Red Cedar



Alder



Sycamore

Continue to walk up towards the Woodstock entrance.  
As you walk see if you can spot any Sycamore trees. Their seeds are carried in pods which look like helicopter blades.

As you walk away from the Woodstock entrance back towards the Palace you will pass a large Horse Chestnut on your left. These trees have compound leaves as shown in this picture.



15] Describe the overall shape of this Horse Chestnut tree. Is it tall and thin or rounded and wide? What kind of flowers does this tree have in spring? Each autumn children collect the fruits of a Horse Chestnut tree and play with them. What is the name of this very well known fruit?

Walk along the road until you reach the point where the wall of the park turns sharp left. Here there are two very large Cedar of Lebanon trees.

The following list shows how you can decide if various trees are ancient or not. The list was made by the Woodland Trust.

- ✂ Oak - 3 adult hugs,
- ✂ Beech - 2 adult hugs,
- ✂ Scots Pine- 1 adult hug,
- ✂ Rowan - one adult hug,
- ✂ Birch - a wrist hug,
- ✂ Hawthorn - an elbow hug
- Cedar of Lebanon - 2 hugs

16] Do you think these Cedar of Lebanon trees are ancient?

17] Find part of the tree where a branch has been cut off. How else can you tell how old a tree is without hugging it?

As you walk back to the Palace entrance you will turn into the avenue of trees. This avenue is planted with Lime and Plane trees.

18] Use the pictures of leaves on the next page to decide which trees are Lime Trees and which are Plane.

Continue across the Grand Bridge and look to your right. If it is dry, walk across the grass to reach the small grey stone plinth.



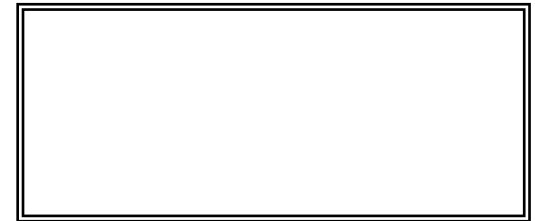
This marks the spot where Woodstock Manor stood. It was knocked down when the Palace was built. Near the plinth is a young Wellingtonia. These trees grow to a great height and have a distinct shape, like a traditional Christmas tree.  
7] Make a sketch of this tree and list the colours you can see in the tree.



A Wellingtonia

These trees produce cones inside of which are the seeds. They have pine needles instead of leaves.

8] Look carefully at the needles on this tree. Do they grow in any kind of pattern? Make a sketch in the box below.



There is a picture of this kind of tree on the front of this leaflet.

Return to the path and walk on to the tall Poplar trees.

9] Look carefully at one of the Poplar trees. Write down three main features of the tree. These should be the kind of features that would help a person identify a Poplar tree. Do these Poplars look similar to the drawing of a Lombardy Poplar shown near question 4?

Did you know?

Poplar trees make very good wind breaks so they are often planted around fields where fruit trees are grown. The flowers are called catkins and come out in March and April.

Continue to walk along this path until you reach a cottage at the end of the lake. This is called Fisheries cottage.

10] As you walk note down the names of three different kinds of tree you can see from the path.



Near this cottage there are a number of oak trees.

You can use the pictures in this booklet to make sure you are looking at Oak trees.



Oak trees can live to a great age. The oldest tree in the Park is over 800 years old. The Oak trees here are not as old as that.

11] Using the hints below, try and work out the age of the largest of these trees.

You can use the hug method or a tape measure to get a pretty good idea of a tree's particular age from the girth of its trunk – (how wide it is). Trees will grow at different rates depending on how good soil, shelter or climate are and if they have space to grow freely or are hemmed in by neighbours. Trees grow faster when young and slow down in later life. Some species of tree are fast growing. (Christmas trees grow quickly).

Generally broadleaved trees like Oak, Ash, Beech and Sycamore in UK woodlands put on about 1.5 to 2cm in circumference or girth per year. In open places like Blenheim Park the growth rate will be nearer 2.5cm annually. So by measuring the trunk circumference and dividing by 1.5, 2 or 2.5, you can make a guesstimate of age. If you don't have a measuring tap with you then use the hug method. If an adult held out his/her arms to hug someone or to hug a tree the measurement would roughly be 1.5m (150 cm).

#### DID YOU KNOW?

Many, many years ago the whole of this part of Oxfordshire was covered by a forest. This was called Wychwood Forest. You can see some very old oak trees on the way down to the Pleasure Gardens. Oak trees produce very strong wood. Often oak was and is used for building and for ships. 129 oaks were felled in Blenheim Park to build ships for Nelson's navy.

Next take the right hand fork in the path and walk on towards Woodstock. The path rises above the cottage. The trees on your right as you walk are Beech trees.

12] How have the Foresters protected these Beech trees?

13] Why do you think these trees have been protected?

Walk on until you reach the iron fencing under which water flows. Near here is an Alder tree.



14] Look carefully at the leaves of the Alder tree and make a sketch of a leaf in the box below. What shape would you say the leaf was?



Draw an alder leaf here.

#### Did you know?

Alder trees like to grow near water, which is why this tree is near the place where the River Glyme flows out of the Lake.

Alder trees are a little bit dangerous. The wood that these trees produce is good for making gunpowder!