

Hello Trees Resource Sheet

What to look for outdoors in Spring

Tree Flowers Quiz 2. Answers



All answers can be found in [Hello Trees books](#) which are aimed at 4-7 year olds, and have clear photographs of the 6 clues to a tree's identity. They cover ten common trees: **Ash, Beech, Birch, Crabapple, Hawthorn, Holly, Horsechestnut, Larch, Lime and Oak.**



Question 1

Which tree do you think has a flower that looks like this?

(a) lime (b) larch (c) beech Or (d) oak?



Answer to Question 1

The answer is (d).

Did you remember that of our 10 trees, only beech, birch and oak have catkins? We have looked at beech and birch catkins so that only leaves oak! Yes, these are oak tree catkins, full to bursting with yellow pollen.



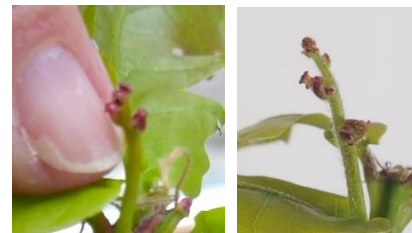
Remember: pollen-making flowers are called male flowers.



Question 2

Which tree do you think has a flower that looks like this?

(a) lime (b) larch (c) beech Or (d) oak?



Answer to Question 2

The answer is (d).

The crimson velvet cushions, each the size of a pinhead, are the stigmas of an oak flower. The bulges below the stigmas are ovaries.



It is not easy to take a photo of such a tiny thing but have a go. Zoom in. Can you make out 3 distinct stigmas on each flower?

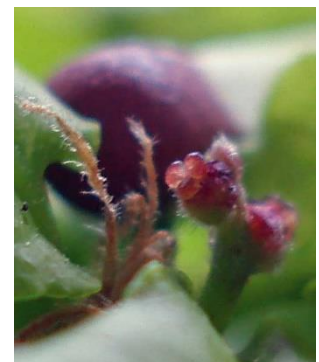
Each of the 3 stigmas is connected to the ovary by a style.



The 3 styles are indiscernible but must be there!

My friend Linda McArdeall, nature speaker and photographer registered with the Woodland Trust, managed to capture the 3 tiny stigmas. See them? Each a translucent bobble.

See the matchhead? It reminds us how minute the flower is.



So,

Oak flowers are *tri-carpellate*: each flower has 3 carpels.



Each *carpel* has a stigma, style and ovary but, while oak flower stigmas are separate, their styles and ovaries are fused together.



The three carpels together form a *pistil*.

('Pistil' is the right term whether it is formed of one or more carpels)



If pollen from oak catkins falls on the stigmas, an acorn can develop.

Hello Trees Resource Sheet



What to look for outdoors in Spring

Tree Flowers Quiz 2. Answers



Question 3

For seeds to form, pollen must fall on female flowers.

This we call *pollination*.



Do you think that oak trees are (a) wind pollinated? Or (b) insect pollinated?



Do you remember the clues we used to help us decide whether a tree is likely to be wind or insect pollinated?



Leaves get in the way of the pollen floating on the wind. Male flowers of wind-pollinated trees tend to release their pollen before leaves emerge.



Insect-pollinated flowers tend to be colourful – or bright white – or scented to attract insects.



Wind-pollinated flowers tend to appear early in Spring when it is likely to still be too chilly for insects.



Answer to Question 3

Oak trees are wind pollinated.



The first clue would have misled us: oak leaves and flowers emerge together!

Here is a photo of the mass of leaves and flowers at the tip of an oak twig.



Look at the flowers on your oak tree. Are the leaves in the way?

Or are male catkins swinging freely – and female stigmas sticking out on stalks at the tip of twigs, in a good position to catch any pollen wafting by?



The second clue would *not* have misled us: oak flowers have nothing to attract insects.



The third clue is not much use because oak bud burst is affected by air temperature as well as day length: oak shoots, leaves and flowers emerge early if the weather is warm and dry, which is good weather for pollen to waft about on the wind – and just the kind of weather insects enjoy, too!



The timing of oak bud burst has huge implications for the caterpillars that feed on tender

new oak leaves and for the birds that feed those caterpillars to their baby chicks.



Will climate change mean that it all gets out of synch? Scientists are on the case!

Hello Trees Resource Sheet



What to look for outdoors in Spring

Tree Flowers Quiz 2. Answers



Question 4

Which tree, do you think, has male flowers that are luminous green bobbles while they nestle in their stubby little woody base, then emerge as yellow tufts; and raspberry-red female flowers that swell into pale-pink and green egg-shapes covered in soft curling scales?

(a) ash (b) lime (c) larch Or (d) beech?



Answer to Question 4

(c) Larch trees have these flowers.



Larch flowers are exquisite. Search them out.



Strictly, conifers do not have 'flowers'.

Conifers have *male cones* and *female cones*.

They are also called *strobili* (one *strobilus*, many strobili).



Larch trees stand out because they are one of the few deciduous conifers, so that in Spring they are covered in bright green needles, in rosettes along the twig, singly along the tips of new shoots,



Do look closely at the markings on the twigs below the rosettes. They are beautiful.



Note that the needle rosettes grow from a stubby little base similar to that of the male flowers.



Question 5

Which tree has flowers with 4 white petals and a single green blob at the centre?

(a) holly (b) beech (c) hawthorn Or (d) lime?



Answer to Question 5

(a) Female holly flowers are a green blob surrounded by 4 petals.

Did you guess from the words of 'The Holly and the Ivy' carol, 'The holly bears a flower, as white as any snow?'

Or perhaps you noticed the dark green glossy leaves and their distinctive sharp spines!

Magnification of the central blob reveals that it is rough on top: basically, a rough-surfaced stigma on an indistinguishable style, a smooth-cased ovary below.

There are 4 would-be stamens between the petals. Their would-be anthers have no pollen.

Hello Trees Resource Sheet

What to look for outdoors in Spring

Tree Flowers Quiz 2. Answers



Question 6

What tree has a flower with 4 white petals and 4 prominent stamens whose anthers are swollen with pollen?

(a) holly (b) beech (c) hawthorn Or (d) lime?



Answer to Question 6

(a) Male holly flowers have 4 white petals and 4 prominent stamens whose anthers are swollen with pollen.

Male and female holly flowers are on separate trees.

They are insect pollinated, and both male and female flowers are scented.

It is said that a male holly tree can 'serve' 6 females!



It must help if the female trees are near the male – but I am not surprised that there is seldom a profusion of holly berries when we want them at Christmas time.

There is another reason I am not surprised there are never as many holly berries as we want.



It is that hollies don't seem to be very good at knowing what time of year it is.

Not that I think they should deliver berries in time for Christmas.

In every month of the year I have seen holly flower buds on one or another tree.



Do look out for holly flower buds.

They nestle in leaf axils (base of leaf stalks).

They start matt purple, turning pale as they swell.



Question 7

Which tree flowers have 5 white petals, a pistil and lots of stamens, all in the same flower, and all flowers on the same tree?

(a) Crab apple (b) hawthorn (c) lime Or (d) horsechestnut?

Answer to Question 7

All these trees have flowers with 5 petals, a pistil and lots of stamens.



All flowers being on the same tree (not male flowers on one tree and females on separate trees), these trees are *monoecious*, one-house trees.

Male and female flowers both being within one flower, the flowers are *perfect*.

They deserve a Tree Flower Quiz of their own.



For more Spring Tree Flower Quiz Questions and Answers – and so much more about what to discover outdoors - see [Hello Trees Resources](http://www.hellotrees.co.uk)