

We estimate that STEPS 14-27 will take you up to 2 hours

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This section on each page provides an estimate of how long the section will take.

STEP 14: WAS THE TREE PLANTED?

Did you, a previous homeowner or the local authority plant this tree? If it's in your garden, the answer is probably **yes!** The answer is also likely to be **yes** if the tree is on a pavement. Check the manual for more info on self-seeded trees!

STEP 18: CIRCUMFERENCE AT BREAST HEIGHT

The first measurement we take is the circumference of the tree trunk. We take 'breast height' to mean roughly 1.5m above ground level, which is the height at which the circumference should be measured. If you cannot do it at this height, you have a multi-stemmed trunk, or ivy is growing around your trunk, just check the manual we sent you for advice!

STEP 22: MEASURE THE CROWN WIDTH

Stand beneath the tree, using the north arrow on your field map or a compass to locate yourself at the most Northern extent of the tree's crown. Sometimes it helps if you stand in line with the trunk and look directly up! Then, heading in a straight line to the South, use a measuring tape or pace out the width of the crown to the most Southern edge. One big step is roughly equal to 1metre. Record in metres. Repeat the same but for the East to West direction.

STEP 26: PERCENT IMPERVIOUS (%)

This is an estimation of the amount of 'hard' surfaces below the tree canopy. This includes roofs, concrete, tarmac and anything else that water can't pass through. In the example (left), we could say 50% of the tree's canopy has impervious cover below (the patio area).

FOLLOW THE STEPS

This leaflet is broken down into steps, just take it one step at a time!

If you need our help, the team are on hand. There are a couple of helpful places to look...

STEP 15: IS THE TREE A STREET TREE?

Is the tree growing next to or along a right of way such as pavement or a road? If so, the answer is 'yes'. If the tree is in your front or back garden, then the answer is 'no'.

STEP 19: MEASURE THE TOTAL HEIGHT

This is the height from the ground to the top of the tree! When we say the top, we mean the tallest part you can see! To do this, we recommend downloading an app called Arboreal you can do up to 5 measurements for free.

STEP 23: CROWN CONDITION

How healthy is the tree? This is a visual assessment and just an estimate. If the tree is completely healthy, it will score 100%. If you can see some dead branches or leaves, try and determine what percentage of the crown this represents, and minus it from 100%.

STEP 27: PERCENT SHRUB (%)

This is an estimation of how much of the area under the tree's canopy is covered by shrubs. For example, if there is an area of shrubs covering just less than half of the ground beneath the tree canopy, then record as 40%.

CHECK OUT THE VIDEO..

We have created a video to guide you through the survey from start to finish. The video follows the same steps and can be found using the following link...

<https://www.cambridge.gov.uk/i-tree-eco-project>

STEP 16: TREE SPECIES

You may know or be able to identify your tree already! But if not, check out the manual we sent you, there are lots of helpful links for Tree ID guides. Alternatively, ask the experts on the Whatsapp group (just hover your phone camera over this QR code to message us on the group).

STEP 20: MEASURE TO THE LIVE TOP

If the tree is healthy and alive all the way to the top, then this measurement is the same as Total Height. However, some trees may have what we call 'dieback' at the top of the crown, where some of the branches and leaves are dead. Check the manual if you are unsure.

STEP 24: PERCENT MISSING (%)

Again, this is a visual assessment and an estimation of how many branches and leaves are missing from a complete crown. This requires a bit of imagination! It is best to think of the typical crown shape – for many trees this will be as a sphere. If the crown completely fills the sphere shape, it will score 100%. If you notice that there is a gap in the branches, try and decide how much, as a percentage, of the sphere this gap represents.

YOUR TREE HAS NOW BEEN SURVEYED!

If you have only one tree, your survey is now complete! If you have more than one, please complete section 3 for each tree.

ASK THE TEAM

We have created a Whatsapp group where you can contact the team. We would welcome you to ask questions, send us interesting information about your trees, and send us photos for support with tree and shrub identification!

Simply use the link below or scan the QR code to the left of this box.

STEP 17: TREES NEAR BUILDINGS: DISTANCE AND DIRECTION

Is the tree you are measuring over 3 metres in height and within 18 metres of a residential building (such as your house or a neighbour's)? If so, please record how far away the tree is from the building in metres and what direction it is in. Buildings don't need to be in the plot to be recorded. If there are multiple buildings within 18m then please record the distance and direction from these too. You don't need to include garages in this.

STEP 21: MEASURE THE CROWN BASE

This is the height from the ground to the base of the crown. In other words, from the ground to the height of the lowest branch. Use Arboreal or estimation methods included within the manual. Record in metres.

STEP 25: CROWN LIGHT EXPOSURE

This refers to the amount of light that the tree's crown is exposed to throughout the day. Think of the tree crown as a cube, with 4 sides and 1 top. If all of these are exposed to sunlight for at least a few hours a day, record as 5. Check the manual for more detail on this measurement!

FULL SURVEY COMPLETE!!!

Hooray! You have completed the survey! Your time and efforts are greatly appreciated by the team. Don't forget, Cambridge City Council would love to send you a free tree! Check out the manual for full instructions!

LET'S GET STARTED!

The following equipment will be helpful, but is not essential, all steps can be completed using household items!

- Tape measure
- Tablet or smart phone
- Compass (or access to a compass app)
- Pencil or pen
- Camera
- Centre marker (e.g. tin of baked beans)
- Boundary markers e.g. bamboo canes)

We estimate that STEPS 1-4 will take you around 30 minutes

We estimate that STEPS 5-9 will take you around 45 minutes

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We estimate that STEPS 10-13 will take you up to 1 hour

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STEP 1: LOCATE YOUR PLOT CENTRE

Use the plot map to locate the plot centre on your property. Use a can of beans or similar to mark the location so you are able to find it again!



STEP 2: MARK OUT THE EDGE OF YOUR PLOT

Now measure 11.3m from that centre point towards North. (you could pace it, or cut string or garden twine to this length if your tape measure is not long enough). Add another marker. Repeat for South, East and West. Well Done, you have now marked out your plot!



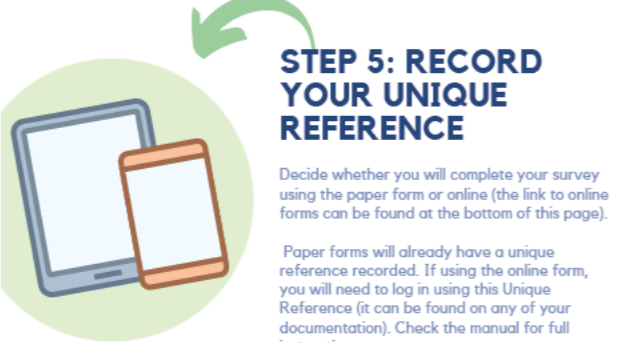
STEP 3: DRAW A ROUGH SKETCH MAP OF YOUR PLOT

Drawing a rough sketch map onto your plot map will be really helpful when we make a couple of estimations. Add to your map anything which is permanent such as, grass, patio, decking, flower beds, shrubs and trees. Try to keep it to scale as best you can. Don't worry!! We do not award marks for artwork!!



STEP 4: TAKE SOME PHOTOS OF YOUR PLOT

It would be really helpful for us if you are able to take some photos of what your plot looks like. We would suggest taking at least one photo of the entire plot.



STEP 5: RECORD YOUR UNIQUE REFERENCE

Decide whether you will complete your survey using the paper form or online (the link to online forms can be found at the bottom of this page).

Paper forms will already have a unique reference recorded. If using the online form, you will need to log in using this Unique Reference (it can be found on any of your documentation). Check the manual for full instructions.




STEP 6: RECORD HOW MUCH OF THE PLOT CAN BE SEEN & MEASURED

If you can see and measure all of your plot, this will be 100%. Check the manual for what to do if you cannot see and measure all of your plot.



STEP 7: RECORD SOME GROUND COVERS IN THE PLOT

How much of your garden is covered with Tree Cover? And how much by Shrub Cover? Any space which is not covered by trees, shrubs or hard surfaces we call 'potential plantable space' (this does not mean it will be planted, just simply gives an idea of how much space is available). How much of your garden would you estimate is potential plantable space?



STEP 8: ESTIMATE MORE SPECIFIC GROUND COVERS

Looking at the different ground covers you have drawn onto the map (e.g. patio, shrubs), have a go at guessing how much of the plot these cover. There are some categories to record these under on your forms. These are preselected by the i-Tree Eco assessment software, not the Cambridge project team.

You'll only need to estimate to the nearest 10%.



STEP 9: RECORD THE LAND-USE OF YOUR PLOT

This should be nice and easy, if the plot is entirely within private property, simply record 100% under residential. If your plot falls partly onto another land use, check the other categories on your form for help.



SECTION COMPLETE!

Hooray! You have now completed Section 1. That's a great start and provides information about the plot itself.

When you are ready, get started on Section 2!



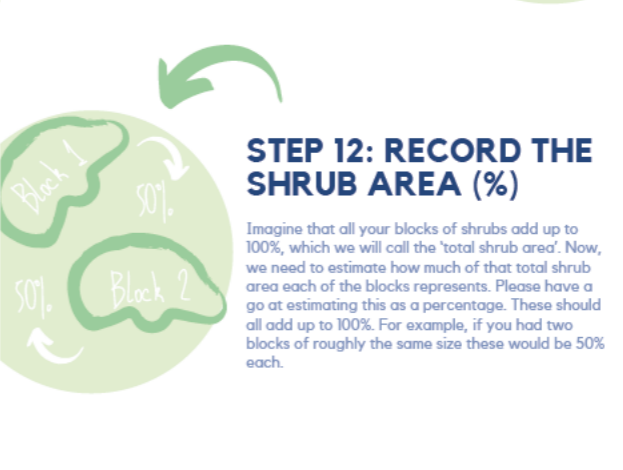
STEP 10: RECORD THE SHRUB SPECIES

Let's keep it simple! Imagine shrubs which are close together as one block and record the most dominant species. If you have a few blocks, record separately. Check out the manual we sent you for ways to get support if you are unsure of identifying the species! Our team is here & ready to help :)



STEP 11: RECORD THE HEIGHT OF YOUR SHRUBS

Measure or estimate the height of the shrub block. The shrub height might vary in places, but just pick the highest point. Don't forget, the height should be 1 metre or taller.



STEP 12: RECORD THE SHRUB AREA (%)

Imagine that all your blocks of shrubs add up to 100%, which we will call the 'total shrub area'. Now, we need to estimate how much of that total shrub area each of the blocks represents. Please have a go at estimating this as a percentage. These should all add up to 100%. For example, if you had two blocks of roughly the same size these would be 50% each.



STEP 13: RECORD THE AMOUNT OF SHRUB MISSING (%)

For this step we would like you to imagine your block of shrub sitting in a box. The height and width of the box are the same width and height as the shrub, but you will notice that the shrub doesn't fill the whole box because it's not the same shape. Please estimate how much of this box is empty and is not filled by the shrub.



SECTION COMPLETE!

You're almost there!!



IT'S TREE TIME!

If you do not have any trees in your plot, simply head to the 'What Next?' section of the manual.

If you do have trees in your plot, this is the Most important section for the survey so please go to Section 3!