

# How to: Age & Measure the height of a Tree

Investigating a woodland habitat might include discovering what species of trees there are, how tall the trees are, and their age. Using a scientific investigation, accuracy and estimation can be discussed, as well as the necessity for this information.

Working scientifically in a woodland, allows children to make enquiries and collect simple data. Through the enquiry “how old and tall is a tree?”, children can try out different methods and equipment, to find a solution. Discussions into the most appropriate method can be decided, with justification about estimation and exact data uses.

## The activity:

1. First, introduce the scientific investigation, identify the trees, discuss evergreen and deciduous.
2. To measure the height of a tree, use the tree measuring activity sheet. Use a variety of methods (to suit your tree and the age range of pupils) and discuss the best reliable method.
3. To estimate the age of the tree, (without cutting it down and counting the rings), measuring the girth of a tree is required. As a tree will roughly increase its girth by average 2.5cm a year. It is best to measure the girth about 1m –1.5m from the ground. Then divide the girth in cm, by 2.5 to give estimated age of tree in years. Of course rate of tree growth differs depending on tree species and habitat conditions.
4. Therefore you can use the tree age sheet to give you an estimated age of trees with different growth rates. The table has been created by using the calculations here: [assets.sussexwildlifetrust.org.uk/Files/p7-how-old-is-your-tree.pdf](https://assets.sussexwildlifetrust.org.uk/Files/p7-how-old-is-your-tree.pdf)
5. Repeat activity on different trees, discover how species grow at different rates and depend on perfect growth conditions. Compare to a different habitat and think about environmental changes.

## Age/ Key Stage:

KS1 (simple estimation for younger students), KS2 & KS3

## National Curriculum links:

- KS1 KS2 Plants, Living things and their habitats, working scientifically
- KS3 Scientific investigation, plant parts and growth

## Location/habitat:

- Anywhere with trees, a woodland, park or school grounds.
- It would be good to compare two different woodland areas or different tree species.

## Equipment required:

- Tree ID sheet (see [www.woodlandtrust.org.uk/blog/2020/03/tree-id-kids/](http://www.woodlandtrust.org.uk/blog/2020/03/tree-id-kids/))
- Tape measure or string
- Measuring stick and ruler
- PHLP Tree ID sheets
- Pencil and paper
- Tree height and measuring document can be found: [www.naturalresources.wales/media/688308/activities-tree-measuring.pdf](http://www.naturalresources.wales/media/688308/activities-tree-measuring.pdf)

