How to find the height of a tree.

There are a variety of methods to do this using the skill processes of estimating, measuring and calculating.
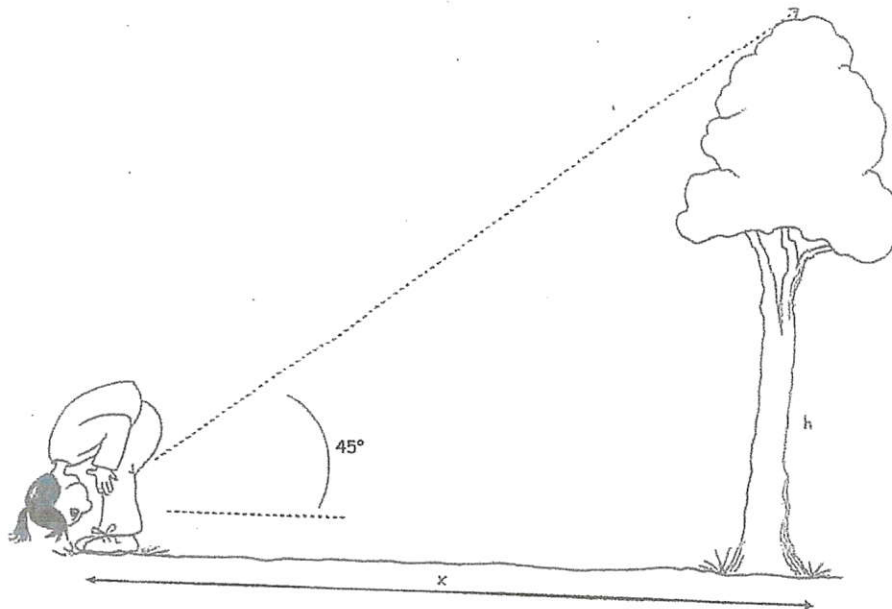
Method 1

The simplest way is by **estimating** the height just by looking at the tree from a distance or comparing it with surrounding structures whose height is known. Children can do this initially and it will indicate how aware they are of the **order of magnitude** of the size of objects.

Once recorded they can then use increasingly sophisticated methods to improve their **accuracy**.

Method 2

This relies on **trigonometry** (and suppleness!) and the fact that if you view a tree top at a 45 degree angle then the height of the tree is equivalent to the distance that you are from that tree.
Walk away from the tree but at regular intervals bend forward and look through your legs back to the tree. Stop when you are at a point where you can just see the top of the tree and **measure** the distance along the ground from the tree to you. This is roughly equal to the tree's height.
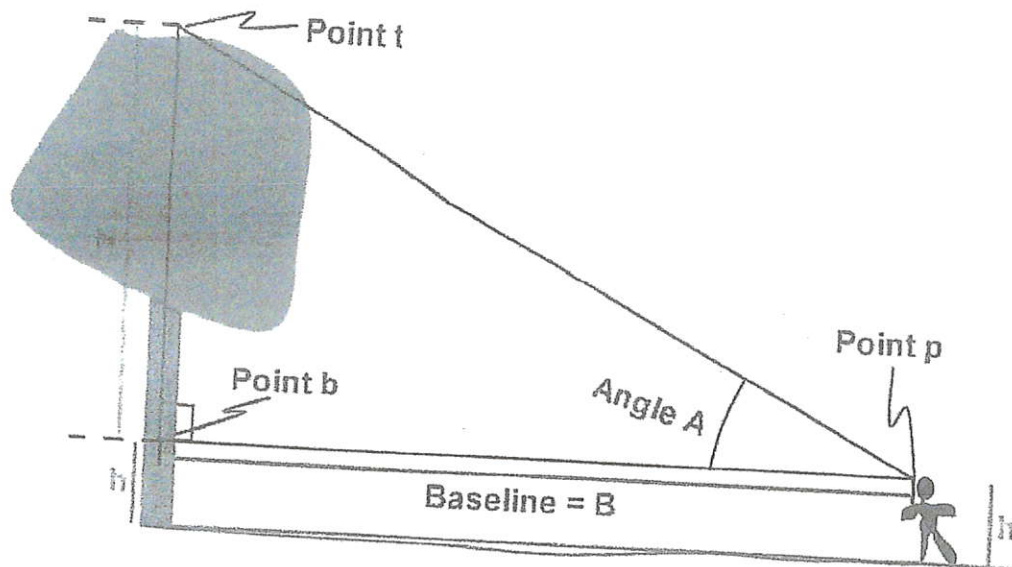
In the diagram above (courtesy of Offwell Woodland & Wildlife Trust at www.countrysideinfo.co.uk) if angle A = 45° then H=B. So to find the tree height, (H+h) you must add B+h.

Tree height = B + h
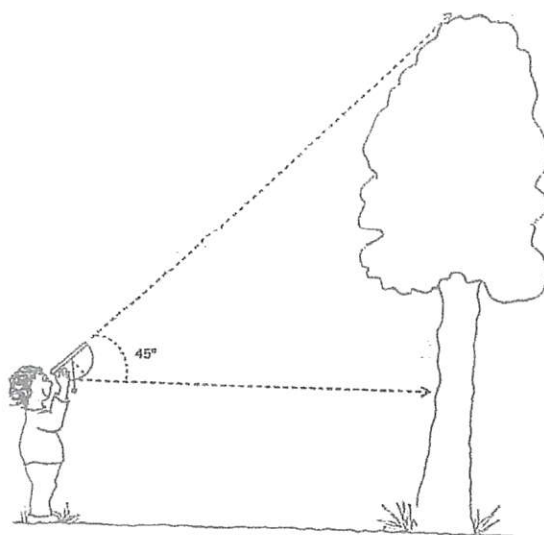
Ideally pupils could try some, or all, of these methods to determine the accuracy of each one. A pupil's sheet is available for this purpose.