



High Weald Hero Activity Card

Build a Tree



Location: An open space, preferably in view of trees
Equipment: 15 or more children

Time: 30 minutes
Audience: KS2

A great way of learning how a tree works

Activity Description: Children act out the various parts of a tree. The leader arranges the children, explains each part (*in italics*) and then issues a 'call' for the children to respond. Start with everyone in a circle facing inwards. At appropriate times, children step forward and take their place.

Heartwood – 2 tall children stand back to back in the centre of the circle.
You are the inner core and strength of the tree, you hold the trunk and branches high above the ground for the leaves to get the sun. The heartwood has been around a long time, so long that it's dead; but it's well preserved by resin.
Leader Call: **Heartwood?** Child Response: **Standing tall and strong**

Taproot – Up to 4 children sit at the base of the heartwood facing out.
You are a very long root called a taproot. You reach 10 metres into the earth, are an anchor during storms and find water. Some trees don't have taproots but this one does! Call: **Taproot?** Response: **Holding fast!**

Lateral Roots – 2-4 children lie on backs with feet to the taproot and bodies extending away. Spread out their hair if possible.
You are the lateral roots, spread out like underground branches to keep the tree standing firm. You are covered with miles of tiny root hairs which grow towards water and suck it up. You have rough tips which help you push through hard soils.
Call: **Lateral roots let's slurp!** Response: **Loud slurping noises**

Sapwood – 4-6 children form a circle around the heartwood facing inwards and hold hands - being careful of the roots!
You are sapwood and are the world's most efficient pump. You take hundreds of litres of water a day from the roots to the highest branches. The water travels at 100mph!
Call: **Sapwood bring up the water** Response: **Wheeeee!** (whilst raising arms in the air)

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Cambium - Group of children form circle around sapwood, facing inwards.
Now we have the growing part of the tree, the cambium, which adds a new layer each year. We can see this when we count the rings of a tree.

Call: **Cambium grow!** Response: **Stretch up to the sky and make appropriate 'growing' noises!**

Phloem and Leaves - Group of children form another circle around cambium, still facing inwards. They are the phloem but their hands are the leaves.
Behind the cambium we have the phloem that carries food made by the leaves and shares it with the rest of the tree. The leaves absorb energy from the sun to make food.
Call: **Leaves let's make food** Response: **Stretch up arms and wave hands**
Call: **Phloem bring the food down** Response: **Whoo!** (bend knees and lower body and arms to the ground)

Bark – the rest of the group make a final circle facing out with arms linked, fists close to the chest.
You are the bark and you protect the tree from...? (hot/cold weather, fire, insects)
Call: **Get tough Bark!** Response: **Make nasty snarling noises!**
Perhaps teacher or another child could try and break into the bark to see if they are doing a good job of protecting the inside of the tree.

Repeat sequence a couple of times. Give yourselves a round of applause and applaud the real trees for making it seem so effortless!

High Weald Teaching Point: In heathy areas, trees are cleared and carefully managed to ensure that heathland plants, which are unique, continue to survive. Existence of the heathland is important for other wildlife too – did you know that 5000 types of invertebrate can be found on heathland?

Activity adapted from Joseph Cornell, Sharing Nature with Children II ISBN 1-883220-87-4

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