

WORKSHEET 12

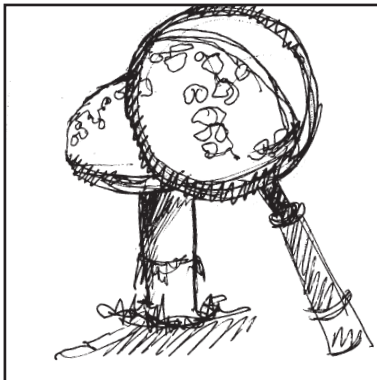
NOTES

Acknowledgements:

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This activity was adapted with permission by Liz Holden from 'Sharing Nature with Children II', pp 62-66.

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BUILD A TREE

This game is an extension of Joseph Cornell's 'Build a Tree' in 'Sharing the Joy of Nature II'. It can work for a large group but you must pay attention to how many people are allocated to each role. Introduce it by explaining how trees and mycorrhizal fungi work together for the advantage of both, then set about building the tree:

Heartwood (1 / 2 people) The heartwood player/s stand in the middle of the room. The heartwood holds the trunk and branches upright so that the leaves can capture the sunlight. It has been around a long time and is completely dead, but it is very strong.

Taproot (1 / 2 people) The taproot player/s sit at the base of the heartwood facing outwards. The taproots can go down as much as 10 metres and act as an anchor for the tree and also bring up water from deep in the earth.

Lateral roots (2+ people) The lateral root players lie on the ground with their feet towards the heartwood and spread out their arms. A real tree has hundreds of lateral roots spreading out through the soil. The tap and lateral roots draw water up from the soil. They should practice noisy slurping on instruction from the leader 'Let's slurp'.

Sapwood (3+ people) The sapwood players form a circle around the heartwood, facing inwards and holding hands. The sapwood (xylem) draws the water up from the roots into the highest parts of the tree. On the leader's instruction 'Bring the water up' the sapwood throw their arms up and shout 'Wheeee!'

Cambium/phloem (enough people to form a circle facing inwards around the sapwood). The phloem distributes the food that is made by the leaves to the rest of the tree. On the leader's instruction 'Let's make food', the phloem players flutter their hands in the air. This is followed by 'Bring the food down', when the phloem players go 'Whooo' and drop down towards the ground.

Run through the story so far: 'Let's slurp'; 'Bring the water up'; 'Let's make food'; 'Bring the food down'.

Bark (enough people to form a circle facing outwards around the phloem). The bark protects the tree from fires, insects and fungi.

Fungus (1+ people) The fungus players lie on the ground amongst the roots and exchange of nutrients takes place. The tree receives mineral salts from the fungus that will enable it to grow in poor soil. The fungus receives sugars from the tree and hums contentedly. If the fungi are equipped with umbrellas, they can put them up at this point to represent the fruiting body.

At this point the entire tree can run through its actions, probably without instructions. The leader could remind the bark to watch out for the ghastly, root gobbling, fungal spore and indeed become the spore if so inclined! The whole group should be involved at this point and when finished give itself a round of applause!