

LEAVES, WORMS AND SOIL

In the winter the tree's leaves have fallen and are decomposing back into soil.

The tree is recycling itself with the help of the small creatures and the fungi that consume the leaves. One of these creatures, the Earthworm, helps by dragging leaves into the ground, causing them to rot quicker, and in its tunnel it eats them, and converts them into worm casts (poo!).

Worm Casts and Worm Plugs

All the leaves and stalks on the ground provide worms with food to drag into their burrows. Earthworms come out after dark, especially on mild wet nights, and pull these things towards them.

After dark, on a mild wet night, search with a torch for earthworms pulling leaves and stalks into their tunnels on muddy or grassy ground under trees. (Only do this with a grown up and where you have permission.)

Earthworms line their burrows with leaves, and as they rot down the worms can eat them. The famous naturalist Charles Darwin spent many months watching worms. He found that they show intelligence in choosing how to pull leaves into their burrows, they use the grit in the soil to break down their food, and all the millions of them together help to shape the surface of the land.



If you would like to identify earthworms , there is a guide to Earthworms at this web site:

OPAL Explore

<http://www.opalexplorenature.org/sites/default/files/7/file/Field-guide-OPAL-online.pdf>

There are different sorts of earth worms - 13 common species.

They do not all pull leaves down. Some of them stay nearer the surface and these ones are great for composting.





WORM DETECTIVE

Look for worm plugs:

Little piles of rotting leaves and stalks.

The plug is made by the worm to protect itself from water and predators.

⇐ **An earth worm plug under oak trees.**

Note how leaf stalks and leaves are dragged in towards the centre, and point inwards.



⇐ **The Tunnel entrance**

Gently lift up the plug, to see the tunnel.

Be sure to replace it to safeguard the worm.



Look for worm casts:

Little piles of mud that look like mud toothpaste! This is worm poo, and is fantastic plant food.

⇐ **A Worm Cast in grass.**

Earth Art

Make an earth painting !

Take some soil from different places, and different depths in the ground; such as from worm casts and from molehills.

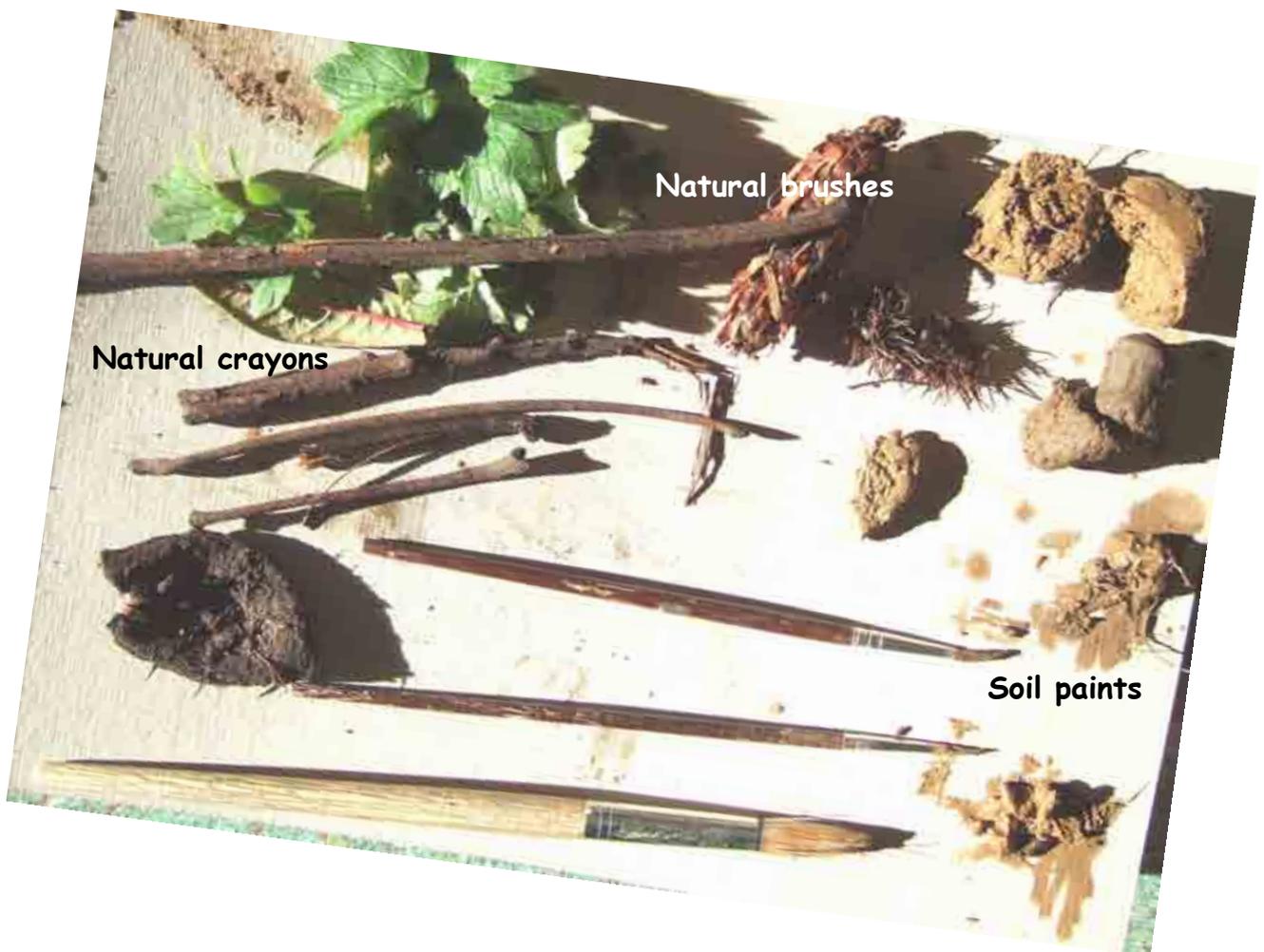
Mix a little water with the soil, depending on how you wish to use it: with a brush or with a finger.

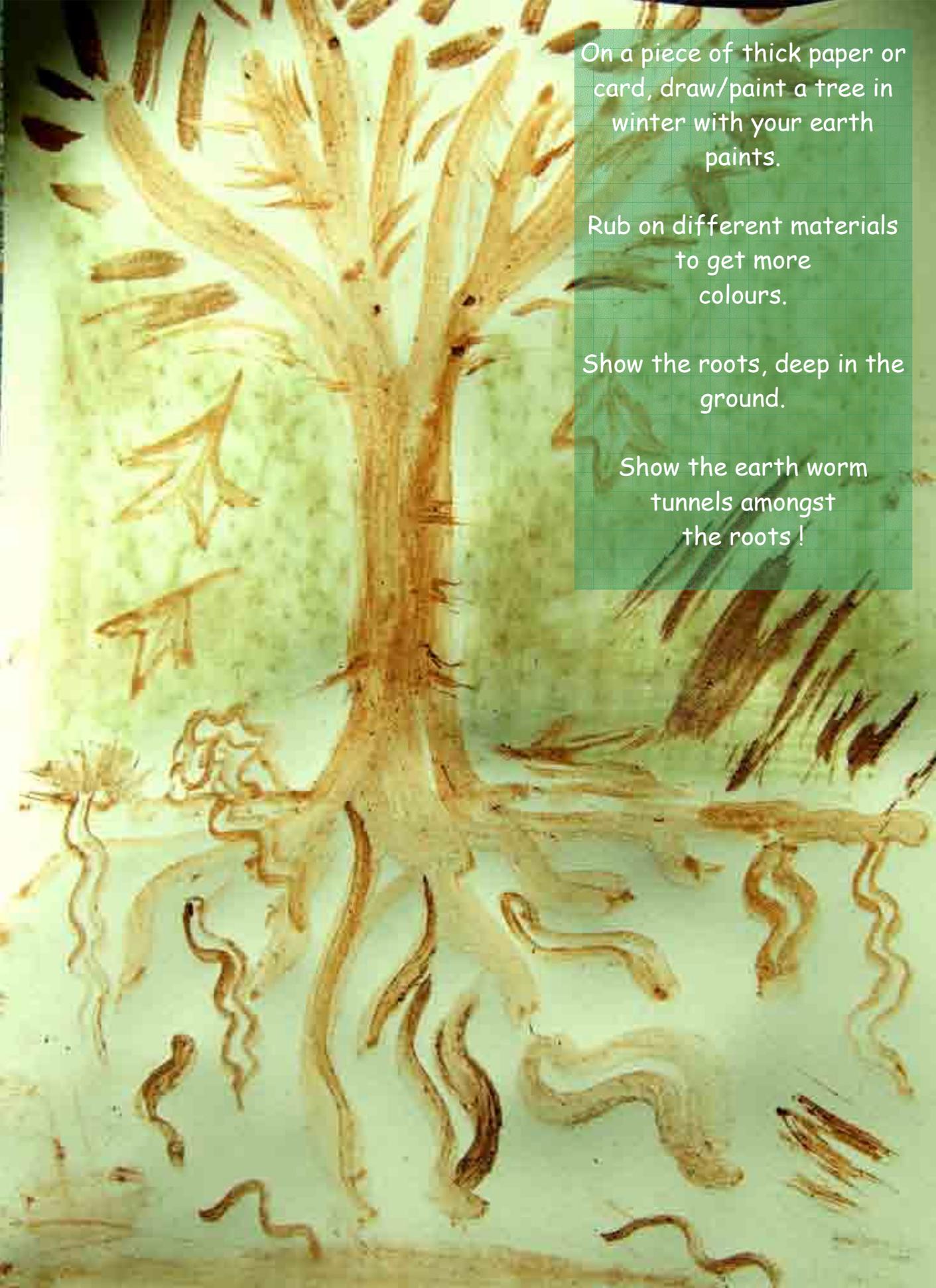
Try to find different colours.

Take some grass and other leaves, if you want some greens in your picture (after all, there is grass and evergreen foliage in winter). This can be rubbed on to give green colour.

Find some half rotten twigs, pine cones, or seed heads, as pencils, and brushes.

You could also use charcoal to draw with as this is made from trees.





On a piece of thick paper or card, draw/paint a tree in winter with your earth paints.

Rub on different materials to get more colours.

Show the roots, deep in the ground.

Show the earth worm tunnels amongst the roots !