



January/February

zoom in on trees

A way forward from January

January is here. It's time to begin a study of trees in the school grounds or locality. Children should identify trees from observing their outlines and buds. Sometimes results are surprising when they are asked to sketch the tree or leaf with their eyes closed! Now is a good time too to examine the buds, bark and the branches

Literacy/Litearthacht

Heartwood (croí-adhmad) – The trunk part that is made up of dead cells. It gives the tree strength. *Cuid de thamhan crainn atá déanta as cealla marbha. Tugann sé láidreacht don chrann.*

Sapwood (sú-adhmad) – The part of the trunk consisting of very fine tubes that carry water and nutrients to leaves. *Cuid de thamhan crainn ina bhfuil min-fheadáin a iompraíonn uisce agus cothaitheigh chuig na duilleoga.*

Xylem (xiléim) – Water is carried up from the roots by tubes known as 'xylem'. *Iompraítear uisce ó na fréamhacha trí fheadáin a dtugtar 'xiléim' orthu.*

Phloem (fléam) – Fine tubes that carry sugars made by the leaves to other parts of the tree. *Mín-fheadáin a iompraíonn siúcraí a dhéantar sna duilleoga agus i gcodanna eile den chrann.*

Bark (coirt) – The tough outer skin that protects the tree. *An craiceann righin seachtrach a thugann cosaint don chrann.*

Transpiration (trasghalú) – Process whereby water is carried from the roots to the leaves where it evaporates into the atmosphere. *Próiseas trí-na n-iompraítear uisce ó na fréamhacha chuig na duilleoga áit a ngalaíonn sé isteach san atmaisféar.*

Photosynthesis (fótaisintéis) – Process in which a plant makes the carbohydrates from carbon dioxide and water, using sunlight as the source of energy and with the aid of chlorophyll. *Próiseas ina ndéanann planda carbaihiodráití ó dhé-ocsaíd charbóin agus ó uisce ag baint úsáide as solas gréine mar fhoinsé fuinnimh agus le cabhair ó chlóraifill.*



Brian Boru Oak
Tuamgraney

Adopt a tree – a programme of work

January: Study buds, bark, branches. Draw tree's outline. Use masking tape to cover the branches and roots they have drawn. Paint over the picture using bright colours for what is visible above ground and dark

colours for what they imagine is under the ground. Remove the tape when the picture is dry. Do bark rubbings.

February: Get the tree's vital statistics: age, height, area of canopy. See www.blackrockec.ie for January and March projects. Observe buds. Have a bud race in the classroom. Cut growing twigs c. 20cm long from a selection of trees or roadside hedges. Place these in 200ml of water in different jars. Label with tree name and date. Get the children to predict which one will open first. See www.irishtimes.com/timeseye/trees/pdf/classroom.pdf. This also shows them how to identify buds using a key.

March: Get background information on the tree: native or non-native; uses; folklore; poetry associated with tree.

April: Examine the leaves. Do leaf rubbings.

May: Find out what invertebrates inhabit the tree and its environs by setting up pitfall traps, branch traps and bark traps. Do art work on leaves, twigs, bark. See www.blackrockec.ie – projects for May.

June: Set up a fair test to explore transpiration. (See www.blackrockec.ie Projects for June. Press leaves. Do science experiments. Research uses, flowers and fruit. Put finishing touches to project. See www.adoptatreeproject.com.



Useful websites and resources

- ✦ www.treecouncilofireland.ie – worksheets for every class
- ✦ www.crann.ie – Schools' Project Crann Magazine.
- ✦ www.blackrockec.ie – videos on how to plant a mini-wood, how to plant a hedgerow, how to get the height and area of the canopy of a tree, how to make a log-pile, how to propagate trees from seeds and cuttings.
- ✦ www.trails.ie – award-winning site on how to create tree trails on the school grounds.
- ✦ www.enfo.ie – general information.
- ✦ www.naturedetectives.org.uk – leaf dials, leaf bingo etc.
- ✦ *Go Wild at School* by Paddy Madden (School Wildlife Gardening Association, 2011). Chapters on how to plant a mini-wood on school grounds and how to plant a native hedgerow.
- ✦ *Trees of Ireland* by E Charles Nelson and Wendy F Walsh (Liliput Press, 1993)
- ✦ *Native Trees and Forests of Ireland* by David Hickie (Gill & Macmillan, 2002)
- ✦ *Irish Trees Myths, Legends and Folklore* by Niall MacCoitir (The Collins Press, 2003).
- ✦ *Trees in our World - A Global Education Pack* (EcoUnesco)
- ✦ *Tree-mendous Trees Activity Book* (EcoUnesco)
- ✦ *Nature* by Gordon D'Arcy. See www.gordondarcy.ie.

My tree / Mo chrann

Name: In English In Irish In Latin

Location:

Branches: Opposite or Alternate Up or Down Spiral At right angles

Trunk: Rough or Smooth Scaly Fissured Peeling Colour

Twig: Slender Shiny Hairless Lenticels Growth Rings Leaf Scars

Roots: Visible Invisible Long Short Thick Slender

Leaf Shape: Opposite or Alternate Round Oval Narrow Needle-Shaped Oblong

Triangular Heart-Shaped Feather-Shaped Hand-Shaped

Leaf Edge(Blade): Toothed Smooth Lobed

Leaf Veins: Opposite Alternate

Leaf Tip(Apex): Pointed Rounded

Leaf Feel: (Texture) Smooth Rough Hairy Glossy

Flowers: Colour Catkins?

Buds: Colour Long Pointed Scaly Large Small Hard

Egg-shaped Sticky Hairy or Hairless Shiny Opposite/Alternate

Fruit: Colour Berry Nut Cone Winged Wingless

Seed: Colour Shape

No. of seed in fruit:

No. of dependent insect species:

Mini-Beasts Found:

Girth: Age: Height: Area of Canopy:

Growth on Trunk: Ivy Algae Lichen Moss



Hazel Catkins



Bubble wrap trap



Bud race



Chestnut bud

Photo: Eamon Ó Murchú

Place names and trees

Many place names are derived from the names of trees. The most common is Doire, an oak-wood.

- ✦ **Adare (Áth Dara)** – The ford of the oak.
- ✦ **Ballysadare (Baile Easa Dara)** – The town of the waterfall of the oak grove.
- ✦ **Glenbay (Gleann Beithe)** – The glen of the birch trees.
- ✦ **Mayo (Maigh Eo)** – The plain of yew trees.
- ✦ **Terenure (Tír an Iúir)** – The land of the yew.
- ✦ **Cullen (Cuileann)** – Holly tree.
- ✦ **Cullahill (An Chúlchoill)** – A hazel wood.
- ✦ **Drinagh (Draighneach)** – A blackthorn tree.

Ros, Muine, Fiodh and Scairt mean a wood or grove and lots of placenames are derived from these words e.g. Sartaglin – the grove of the glen. See www.logainm.ie.

Strand Units covered this month

Environmental awareness, caring for the environment, plant and animal life, the local natural environment.



PADDY MADDEN lectures on SESE in Coláiste Mhuire, Marino Institute of Education. He is a Heritage in School specialist – see www.into.ie. His latest book, the third reprint of Go Wild at School is available now for €15 plus €2 p&p. To purchase contact him at paddy.madden@mie.ie. He is also the author of The School Garden – What to do and when to do it. This is available from the same email address for €10. *Buíochas do Marie Whelton (MIE) don aistriúchán.* (Thanks to Teresa Flanagan for Tree Project)

Tree topic web

