



# October

## zoom in on a hedge

### Background information

Ireland has the least amount of woodland cover in the EU (9.7% Ref: [www.publications.parliament.uk](http://www.publications.parliament.uk)). Our hedgerows, therefore, are vitally important for their contribution towards enhancing biodiversity (2/3 of Irish birds nest in hedges). They act as vital corridors for wildlife. Hedgerows prevent soil erosion and pollution of waterways. They are nearly all man-made: most were planted from c.1750 to 1850 under the Acts of Enclosure. They are aesthetically pleasing too and provide shelter for stock.

### Literacy/Litearthacht

**Producer (Táirgeoir)** A plant produces food for consumption (Planda a tháirgeann bia inite)

**Primary consumer (Táirgeoir tosaigh)** An animal who eats plants (Ainmhí a itheann plandaí)

**Secondary consumer (Táirgeoir tánaisteach)** An animal that eats primary consumers such as a fox (Ainmhí a itheann tairgeoirí tosaigh ar nós sonnaigh)

**Tertiary consumer (Táirgeoir treasach)** An animal that eats a secondary consumer such as follows: slug eats leaf; frog eats slug; otter eats frog. The otter is a tertiary consumer (Ainmhí a itheann tairgeoirí tánaisteacha mar seo a leanas: itheann drúchtín duilleog; itheann frog drúchtín; itheann madra uisce frog. Is tairgeoir treasach é an frog)

**Whip (Buinneán)** A plant that is c. 100 to 125 cm. (Planda atá thart ar 100 go 125 cm.)

**Censer (Spréfhéaras/túiseoir)** Vessels for burning incense (Fearas ina ndóitear túis)

### The composition of a hedge

**Ground layer:** Composed of rotting leaves, decaying wood. Here decomposers such as fungi, bacteria, woodlice, millipedes, worms, slugs and snails break down dead matter. Many of these primary consumers are eaten by secondary consumers such as centipedes, beetles, birds and mammals.

**Field layer:** Composed of flowers such as bluebells, primroses and violets which bloom in spring to avail of light before leaves emerge. Here, too, ferns thrive.

**Shrub layer:** Composed of shrubs such as hawthorn, blackthorn, wild rose, wild

privet, holly, hazel, honeysuckle, elder and guelder rose. This layer is a source of nectar and pollen in the spring/summer and a source of fruit in the autumn.

**Tree layer:** Composed of trees such as ash, rowan birch, crab, elm and wild cherry which have their resident insect species. Many birds nest here.



Haws



Hedgehog



Hazelnuts - photograph Eamon O'Murch

### Strand Units covered this month:

Environmental awareness, caring for the environment, plant and animal life, science and the environment, my locality through the ages.



Native hedgerow



Hedge in a box

## Active Learning

### 10 food chains that can be found in a native hedgerow

- 1 sun>leaf>woodlouse>pigmy shrew>barn owl.
- 2 sun>leaf>snail>thrush>cat.
- 3 sun>haw>wood mouse>kestrel.
- 4 sun>grass>rabbit>fox.
- 5 sun>nut>brown rat>fox.
- 6 sun>leaf>worm>blackbird>falcon.
- 7 sun>blackberry>blackbird>fox.
- 8 sun>leaf>greenfly>ladybird>spider>gold-crest>sparrowhawk.
- 9 sun>flower>moth>bat.
- 10 sun>leaf>worm>blackbird>sparrowhawk.

### Play the hedgerow food chain game

Make laminated cards with pictures of above. Behind the cards write what each creature eats. Only sun-card is required. Bring the children outside. Give each one a card. Teacher holds a ball of string and says, "I am the sun. Plants use my energy to make food. Who steals my energy?" Children with pictures of leaves, the grass, the nut, the blackberry and the haw

answer, "I do". Teacher rolls out the ball of string and each holds a piece. Teacher says, "Who steals energy from the leaf"? String is extended to worm, woodlouse, snail etc. "Who steals energy from the blackberry?" The game continues until every child holds a piece of string. This is a **hedgerow food web**. If poison is given to one creature every part of the web is affected. Demonstrate this by tugging at the string in one place.

### Interactive whiteboard

Check [www.hedgelink.org.uk/hedgerows/children.html](http://www.hedgelink.org.uk/hedgerows/children.html) for food chain games and finding creatures in the hedgerow. This site has survey sheets too. The geography lesson in which the opinions of the farmer, environmentalist etc, are sought regarding the hedgerow is good for debate.

Check [www.naturedetectives.org.uk](http://www.naturedetectives.org.uk) for leaf and tree identification templates and autumn activities.

### Engage in a line transect study along the hedge

Mark a rope with knots every 50cm and record what plants are found at each knot.

### Make a hedgerow in a box

See [www.blackrockec.ie](http://www.blackrockec.ie). Click on Paddy's School Garden.

### Plant a hedgerow

See [www.blackrockec.ie](http://www.blackrockec.ie). Click on environmental activities. A whole hedgerow can be ordered off [www.futureforests.net](http://www.futureforests.net).

### Study seed dispersal in a hedgerow

#### By wind

<i>Censer mechanism</i>	Poppy, bluebell.
<i>Parachutes</i>	Dandelion, hairy willow-herb.
<i>Wings</i>	Wych elm, sycamore, ash.

#### By water

Alder.

#### By explosion

Furze, birdsfoot trefoil.

#### By animals & humans

Cleavers, lesser burdock.

#### By rodents

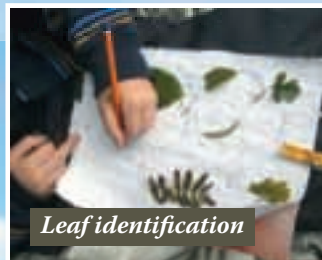
Beech, oak, hazel, chestnut.

#### By birds

Wild cherry, ivy, wild strawberry, rowan, dog rose, hawthorn, blackberry.



New hedge in Agards NS,  
Celbridge



Leaf identification



Hedgerow destruction

### Useful websites and resources

- ✦ Check the blog of Scoil Chaitríona Junior School, Renmore, Galway for a glimpse of the wonderful work they have done on butterflies. Click on their Science Site for more classroom activities and resources: [scoilchaitrionajnr.blogspot.com](http://scoilchaitrionajnr.blogspot.com)
- ✦ Drawing with children: See [www.gordondarcy.ie](http://www.gordondarcy.ie) Berries and Birds in the intermediate section (pages 84-87) of Narture
- ✦ [www.hedgelink.org.uk/hedgerows/children.html](http://www.hedgelink.org.uk/hedgerows/children.html)
- ✦ [www.blackrockec.ie](http://www.blackrockec.ie)
- ✦ [www.futureforests.net](http://www.futureforests.net)
- ✦ [www.naturedetectives.org.uk](http://www.naturedetectives.org.uk)
- ✦ [www.askaboutireland.ie](http://www.askaboutireland.ie) (ENFO) Download posters
- ✦ [www.thehedge.org](http://www.thehedge.org)

*Buíochas le Marie Whelton (MIE) don aistriúcháin.*



**PADDY MADDEN** lectures on SESE in Coláiste Mhuire, Marino Institute of Education. He is a Heritage in School specialist – see [www.into.ie](http://www.into.ie). His

latest book, the 3rd reprint of *Go Wild at School* has just been published and is available now for €15.00 plus €2.00 p&p. To purchase contact [paddy.madden@mie.ie](mailto:paddy.madden@mie.ie). Paddy is also the author of *The School Garden - What to do and when to do it*.