



Lesson Plan 4: Hedgerows

An Chomhairle Oidhreachta
The Heritage Council



This lesson is part of a series of 8 lesson plans based on the “Explore the Nore” poster and River Nore Heritage Audit. It is aimed at 4th, 5th & 6th classes in primary schools. The project is an action of the Kilkenny Heritage Plan, and is funded by the Heritage Office of Kilkenny County Council and the Heritage Council. For further information contact dearbhal.ledwidge@kilkennycoco.ie. Tel: 056-7794925. www.kilkennycoco.ie/eng/Services/Heritage/

■ Learning objectives

SCIENCE

Strand: Living things; Strand unit: Plant and animal life
Strand: Environmental awareness and care;
Strand unit: Environmental awareness

GEOGRAPHY

Strand: Natural environment; Strand unit: The local natural environment;
Strand unit: Land, rivers and seas of Ireland

Strand: Environmental awareness and care;
Strand unit: Environmental awareness;
Strand unit: Caring for the environment

Content objectives

- develop an interest in and curiosity about the world through the exploration and study of living things
- communicate and record observations, evidence, evidence and results of experiments and investigations using a variety of oral, written and graphical forms and other media.
- understand the interdependence of a wide variety of living things and their environments, recognise the importance of conserving habitats and environments, and begin to understand that all life now and in the future depends on the sustainable development of the planet

Skills and concepts to be developed

- questioning
- observing
- investigating and experimenting
- estimating and measuring
- planning and making

■ Learning activities

What is a hedgerow (ditch)?

Hedges, also called ditches, are lines of trees and shrubs that are planted to show a boundary line. This might be the boundary between two different properties, or it might be to divide up one property into useful pieces, e.g. the fields on a farm. Most hedges were planted as a result of the Enclosure Acts of the 18th century. That means that older hedges can be 200 years old! Hedges along townland boundaries can be very old, even dating back to medieval times. The hedges along a farm lane between Threecastles and Lismaine, parallel to the river, follow an old medieval road. Examples of field

boundaries and hedges can be seen on the poster in the image of the historical map of Grange Demesne, and the area around the cropmark at Threecastles.

Why are hedges important?

Until the first farmers started to clear land for crops and livestock in the Neolithic period 6000 years ago, Ireland, and Kilkenny, was covered in dense forest; however we now have a very small percentage of the land covered in forest – around 10% - and only a tiny proportion of this is native woodland. Many of our native plants, animals and birds need woodland habitats to survive. This is why hedges are so important. They act as strips of narrow woodland habitat, linking up woodlands, wetlands and other wild places. They are like corridors or special paths that our native wildlife can use to travel between wild places, farmland, villages and towns.

They are full of native tree and shrub species such as ash, hazel, willow, whitethorn, blackthorn, ivy, honeysuckle and elder, with plants such as primrose, lesser celandine, cow parsley, hedge woundwort, and violets. Hedges provide habitat for birds, insects and animals such as rabbits, foxes, hedgehogs, badgers and bats.

The approximate number of insect species dependent on some native trees and shrubs (according to The School Wildlife Garden Association) is as follows: Oak-285, Ash-41, Alder-90, Birch-229, Rowan-28, Willow-266, Elm-82, Hazel-73, Holly-7

■ Linkage and Integration

HISTORY

Strand: Local studies; Strand unit: My locality through the ages

■ Differentiation

● Investigate hedgerow life

Use *Wild Things at School* (Ní Lamhna 2009) to investigate plant and animal life found in Irish hedges. Suitable species covered in the book are: hedgehog, robin, holly, spider, primrose, bluebell, oak, fox, blackbird, woodlouse, ash, squirrel, pigeon, bee, robin-run-the-hedge, nettle, hawthorn, snail, lords and ladies, vetch, elder, badger, butterfly, hazel, bat, **herb robert, cow parsley, birch, crows**. The last four listed here are the most useful for the senior classes and for hedge-specific investigations.

● Scientific hedgerow study

Compare two or more hedges. Estimate their height and width, count the number of different types of trees and shrubs in them. How many are native species? Is the hedge on an old boundary? Look at www.maps.osi.ie/publicviewer and turn on the historic 6" or historic 25" layer to see whether the line of the hedge existed in the 1800s/early 1900s. What shape is the hedge? Tall hedges with a wide base and plenty of plant cover are best for wildlife. Narrow hedges with lots of gaps are not as good for wildlife. Links to Biodiversity theme in Green Schools programme.

● Plant a school wildlife hedge

This is good if the school doesn't have much area for wildlife, or to make a wildlife corridor between existing planted areas. It is best to use a mix of native tree and shrub species such as ash, oak, hazel, hawthorn, wild cherry, crab apple, holly, rowan, honeysuckle, viburnum, and elder. Willow and alder are good in places that get waterlogged. Try to source plants grown from native Irish seeds or collect them from under trees in the local area. See <http://www.nativewoodlandtrust.ie/en/learn/gathering-seed> for advice on growing seeds of Irish trees. Links to Biodiversity theme in Green Schools programme.

(Note: please observe appropriate health and safety precautions and only access land with permission).

■ Resources

Nore Heritage Audit Vol. 1, pages 10-11, 25, 29, 65.

External references

www.scoilnet.ie – search for ‘trees’ and ‘wildlife’.

www.heritageinschools.ie – search for wildlife/environmental investigations

www.naturedetectives.org.uk – search for ‘hedgerow’ and get teacher-friendly packs on hedgerow activities.

http://www.heritagecouncil.ie/fileadmin/user_upload/Publications/Wildlife/hedge.pdf -

Heritage Council publication on conserving hedgerows.

<http://www.antaisce.ie/naturalenvironment/Biodiversity/Biodiversity3/Hedges.aspx> -

general information on hedges in Ireland.

www.greenschoolsireland.org/ - Links to “Biodiversity” theme in Green Schools programme

Planting hedges/wildlife garden

A comprehensive guide for teachers on how to create and maintain a wildlife garden by Patrick Madden, *Go Wild at School* (School Wildlife Garden Association, Dublin, 1996) and an accompanying video have been published by the School Wildlife Garden Association, Scoil Treasa Naofa, Donore Avenue, Dublin 8.

Some tree nurseries supplying native Irish trees and shrubs:

CELT www.celt.net.org/page9.php

Future Forests www.futureforests.net/

Where to see

All the hedges in the study area of the Nore survey were mapped and data is available for each one. However most of the hedges are on private land, and those that are accessible from the public road present difficulties re. health and safety for bringing a group to see them. Any hedge can be used to illustrate the different features discussed here, for example on the school grounds or around a playing pitch.

■ Evaluation