



The hedgerow

Curriculum links:

- **Science** Living things
Environmental awareness and care
- **Geography** Human environments
- **SPHE** Myself and the wider world

Lesson objectives:

To explore the concept of the hedgerow as a habitat with many communities living within it. To identify the four layers that exist in the hedgerow and to recognise the function of each.

Teacher guidelines

It is suggested that the teacher ensures that students are familiar with the vocabulary and concepts introduced in the previous modules before starting this lesson.

Keywords and concepts introduced in previous modules:

shrubs wildlife shelter nests

Hedgerows are very important on the farm as they are home to many animals, insects, plants and birds. All these creatures are linked together by what they eat and how they get their energy in an order called a 'food chain'. Many food chains exist within the hedgerow.

Keywords for this lesson:

habitat community ground layer grassy layer pollinator
shrub layer canopy layer insecticides biodiversity

The hedgerow as a habitat

Hedgerows are an ever-present feature of the Irish countryside and provide a very important **habitat** for wildlife. It is estimated that Irish hedgerows are home to 37 species of shrubs and trees and 105 species of wild flora. If you look at a hedgerow closely, you will see it is also home to a wide range of insects, birds, and mammals, i.e. rabbit, hedgehog, fox and badger. Habitats are environments where they live. Living together, all these living things form a **community**. Communities are very important as all the plants and animals living within them depend on each other. Hedgerows are not the only habitat on the farm, the field, the pond, and the tree are all habitats containing communities.

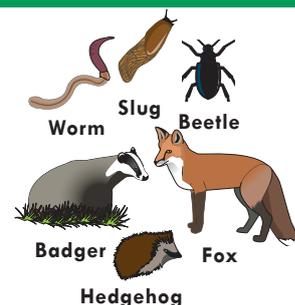
The four layers of the hedgerow

The hedgerow may look like one big habitat, but when you look closer, it is made up of four layers. Different members of the community live in different layers of the hedgerow.



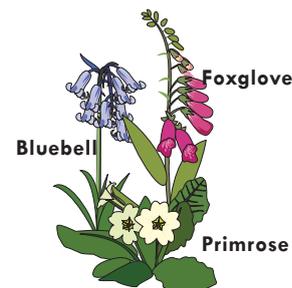
The ground layer

Some of the smallest, and largest animals, build their homes in the ground layer. Here, insects such as beetles and slugs feed on soil and dead plants. These insects are very important. They keep the bottom layer tidy because they don't let old plants build up on the floor of the hedgerow. They also act as food for other larger animals which live in the bottom layer. Foxes live deep underground in an area known as a 'den' while badgers live in large underground tunnel systems called 'setts'. Hedgehogs build nests of moss, leaves and grass under vegetation around farmland, woodland and pastures.



The grassy layer

In the **grassy layer** you will find flowers such as bluebells, primroses and foxgloves. These flowers give the hedgerow its bright colour, attracting many **pollinators** such as butterflies, hoverflies and bees. Bluebells with their long, thin leaves and blue flower come out in early spring. The yellow primroses and cowslips come into bloom between March and May. In the summer, you will see honeysuckles and pink and purple foxgloves. If you look closer you will find insects such as caterpillars living on many of these flowers. Areas of long grass also provides shelter and nesting for many insects. Some birds will also fly into this layer to eat seeds from the plants and/or insects.



The shrub layer

In the **shrub layer** you will find the most common shrub of the Irish hedgerow, the hawthorn. In early spring, this plant is covered with a creamy white blossom. This is why it is known in Irish as the 'Sceach geal' or bright bush. Blackthorn and holly can also be found in the shrub layer, both of which produce berries in the winter. A wide variety of shrubs and trees in a hedgerow can indicate that the hedgerow has been there for some time.

Did you know?

It is estimated that Ireland has a hedgerow length of around 300,000km.

The canopy layer

The top layer is called the **canopy layer** where the birds, bats and bees live. Old hedgerow trees are often the most valuable because their many branches, fissured bark and hollowed trunks provide nesting and rooting spaces for birds. Bats also like to roost in old trees and hunt for insects along the hedge itself. Wild rare birds such as the barn owl also make their nests here.

New wildlife

The farmer is careful to manage and promote the growth of hedgerows by trimming them back at certain times of the year (when birds are not nesting) and by hedgelaying to encourage new growth. Farmers are also encouraged to grow different species of plants and trees on the farm. The new wildlife will build homes and create food chains. The presence of this wildlife encourages **biodiversity** on the farm, from the smallest insects to the biggest forest mammals.

Suggested activities

- Complete the activity sheet, on page 53
- Get students to draw a picture of the different layers of the hedgerow in art class
- Get the class to create a biodiversity map of the school grounds. Identify the different habitats on the map and list all the plants, trees, insects, birds and mammals you can see or find. Compare your habitats to that of a farm. Would you expect to find the same plants, trees, insects and mammals?
- Using the information gathered, get the class to draw an example of a food chain from a selected habitat above
- Get the class to discuss the word 'community' and to discuss the community that they live in. The students' community has various types of people, houses and amenities, just like in the hedgerow where there are different plants and animals
- Divide the class into four groups. Each group should be assigned one layer of the hedgerow and asked to present their story to the rest of the class about all the different animals and activities that occur there

Learning outcomes: At the end of this lesson, students should know the four layers of the hedgerow and what animals and plants live in each layer

Additional resources: • www.agriaware.ie



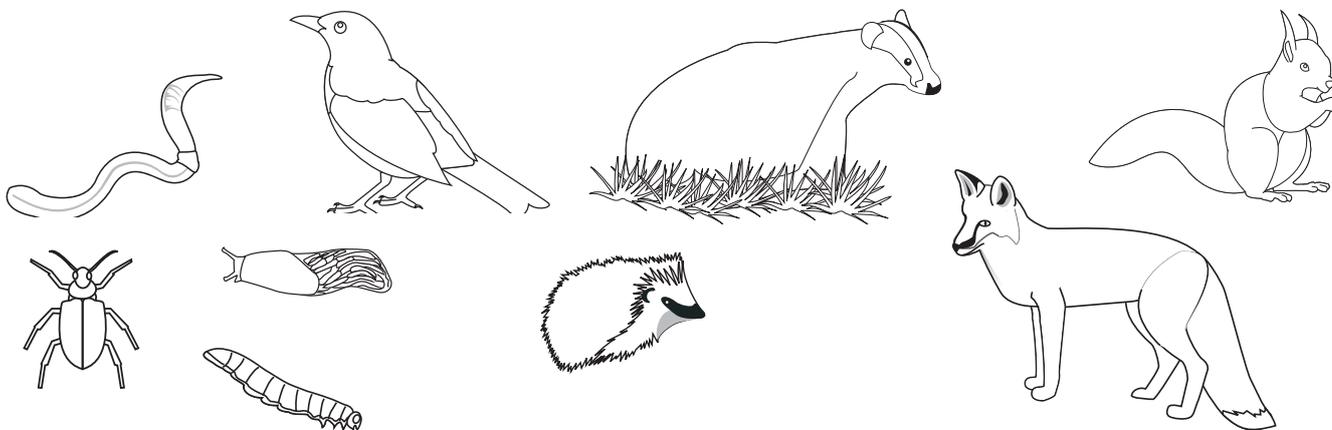
The hedgerow

Name: _____

Date: _____

1 The layers of the hedgerow

Draw an arrow to where each animal lives in the hedgerow below



*To be used with teacher guidelines, page 26