

A close-up photograph of a brown rabbit's head, showing its large, upright ear and dark eye. The rabbit is looking slightly to the right. The background is a soft, out-of-focus green.

Notes for Teachers

Rabbits & Hares



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They are cute. They are fluffy. And everyone loves them. But how much do you really know about Ireland's wild rabbits and hares?

Here we take an in depth look at our three species - how to identify them, and how they live.



What Age Group?

This lesson is best suited for the older age groups. We look at rabbits and hares in some detail.

We have different optional activities to follow the slideshow - colouring in sheets, crosswords, identification posters and more.



Is this a wild rabbit?

Slide 2



This is obviously a pet rabbit.

Pet rabbits live in hutches & gardens. They are fed and cared for by us. Pet rabbits come in different colours. They may even have hanging ears (lop ears) like this one.

Today we are going to look at how wild hares and rabbits live.

What is special about hares and rabbits?

Slide 3

Ears

Rabbits and hares have big ears. They have very sharp hearing. They can hear danger all around.

Eyes

Their eyes are large. They are set in the side of the head, giving them almost 360° vision. Lots of animals want to eat rabbits and hares!

Long legs for Leaping

Rabbits and hares have long legs to enable them to run fast and leap far. When evading predators, hares zig and zag. Brown hares can reach speeds of 70kph.

Tail

They have a short fluffy tail.

Teeth

They have large front teeth (incisors) like rodents. They are herbivores - they eat plants.

Sense of Smell

Rabbits and hares have a good sense of smell. They use scent glands under the chin to mark their home.



Very Quiet

Rabbits and hares rarely use their voice although they can scream when in pain or scared. Rabbits alert others to danger by thumping their back feet off the ground.

Lagomorphs

Rabbits and hares are called lagomorphs. They are quite similar to rodents in many ways. We have three species in Ireland.

The Easter Bunny

The Easter Bunny is actually a hare!



Ireland's Three Species

Slide 4



Rabbit

The rabbit is the smallest species. It weighs up to 2 kg. Rabbits have shorter ears and legs than hares.



Irish Hare

The Irish hare is not as large as the Brown hare. It weighs up to 3 kg.



Brown Hare

The Brown hare is the largest species. It weighs up to 5 kg, and has the longest ears and legs.

Look at the Tails

Slide 5



Rabbit



Irish Hare



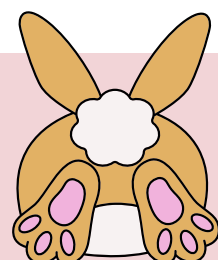
Brown Hare

The three species can be difficult to identify. One clue is to look at the tails. Rabbits and Brown hares both have fluffy tails that are white below and black above. The Irish hare, however, rarely has any black in its tail.

DANGER

When a rabbit (or a hare) flees from danger, all the other rabbits can see their white, fluffy tail.

A white fluffy tail says 'run, run, run'.



Is the Irish Hare native?

Slide 6



What does Native mean?

Most scientists consider an animal native if it has been here since the Ice Age, which is about 10,000 years.

The Irish hare is native.

It is one of Ireland's longest established mammals. Scientists have found bones of Irish hares that were over 28,000 years old. They have been in Ireland at least since the Ice Age, and possibly before that. Irish hare bones have been found at Newgrange and other Mesolithic sites.

Subspecies

Ireland has its own special subspecies of Mountain hare – hence the 'hibernicus' in the scientific name (*Lepus timidus hibernicus*).

This subspecies differs in that it does not normally turn white in winter.

Habitats

Irish hares are found throughout Ireland. They live in a wide range of open habitats including grasslands, salt-marshes and upland bogs and heaths.

Is the Rabbit native?

Slide 7

Rabbits are naturalised.

Rabbits were introduced to Ireland by the Normans in the 12th century. They were brought here for food and fur.

Originally they were kept in big pens called warrens. The earliest recorded warren in Ireland was on Lambay Island off Co. Dublin, in 1191.

Rabbits soon escaped from these warrens and quickly spread.

Habitats

Today, rabbits are found throughout Ireland. They live in a wide range of habitats including farmland, sand dunes, and upland areas. They like areas of short grass, especially where there is some cover such as a hedgerow.



What does Naturalised mean?

A naturalised species is one that was introduced so long ago that it is now considered to belong here.

Is the Brown Hare native?

Slide 8



What is an Invasive Species?

An Invasive Species is an introduced species that could pose a problem for our native wildlife.

The Brown hare is an Invasive Species.

There is a fear that Brown hares could adversely affect populations of Irish hares. They could possibly cross breed with our native hares, thereby causing our pure Irish hares to decline or even become extinct. Or they could bring disease to our native hares.

Origin

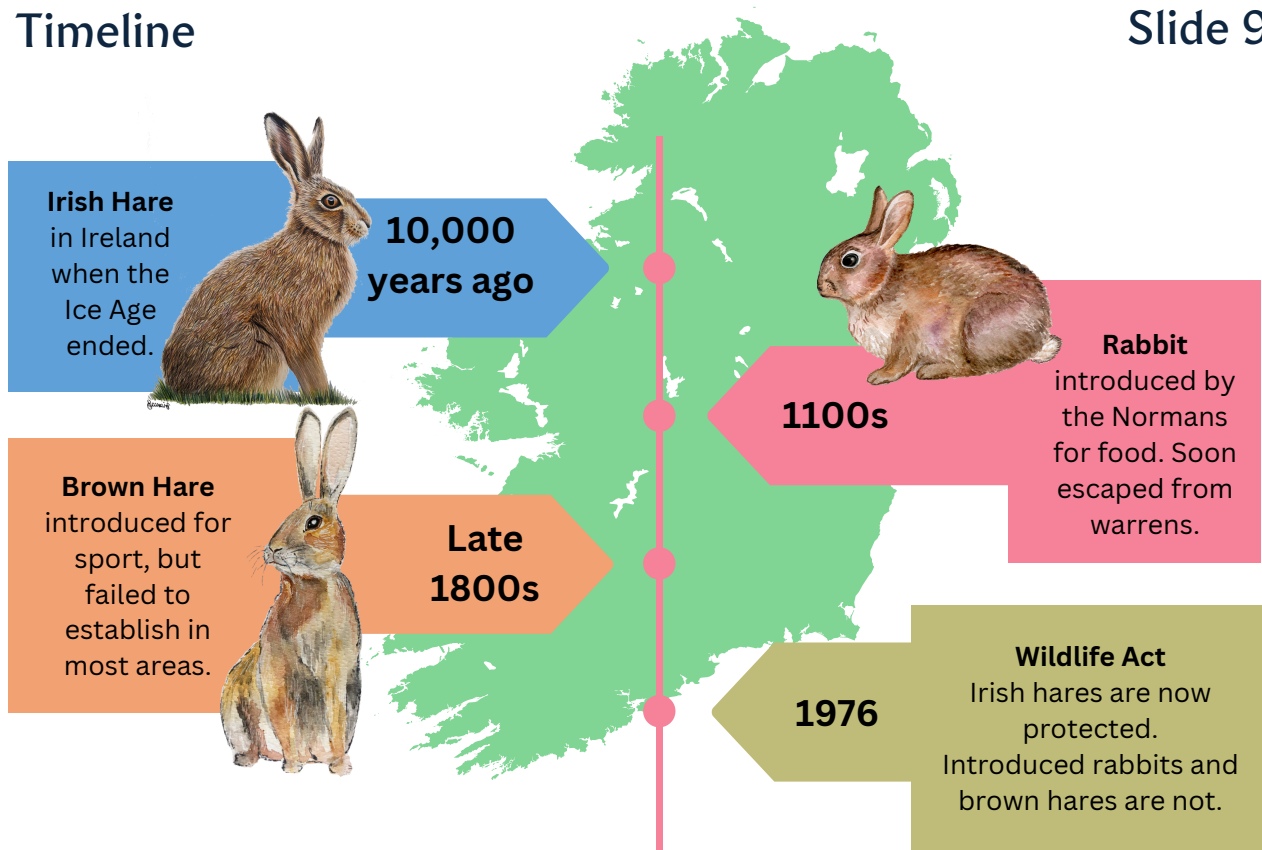
Brown hares were introduced into Ireland (for sport) in several places in the late 1800s and early 1900s. However, Brown hares are not as hardy as our Irish hares, and most of the populations died out. It remains in Northern Ireland and possibly also in Co. Donegal.

Habitat

Brown hares prefer farmland and lowland areas, and are not as tolerant of poor weather as Irish hares. Unlike Irish hares, they don't like upland bogs and heaths.

Timeline

Slide 9



What do rabbits and hares eat?

Slide 10

Rabbits and hares are herbivores. They eat plants. They particularly like grass and wildflowers.

What about carrots?

Pet rabbits love carrots. But wild rabbits rarely find carrots. They prefer wild plants.

Coprophagy

Plants can be difficult to digest. Rabbits and hares get around this problem by eating their food twice. This is called coprophagy.

The first time that their food passes through the gut, it is 'pooped out' as a half digested pellet which the rabbit or hare eats!

The second time that the food gets passed through the gut, it passes out as a regular poop, the sort that you see lying around on the ground.



Special Teeth

Like rodents, rabbits and hares have a pair of large front teeth. These front teeth are called incisors.

The teeth of rabbits and hares grow constantly. This means that they do not wear down as they gnaw and chew plants.

Where do they sleep?

Slide 11



Burrows and Warrens

Rabbits live in large burrow systems called warrens. A warren might contain many rabbits.

Rabbits rarely wander too far from their burrows. They need to be able to dash to safety when danger threatens.



Forms

Unlike rabbits, hares do not live in burrows. They live above ground. Hares rest in a patch of flattened grass called a form.

Hares usually have different forms throughout their territory. They might have a form to rest in by day, and a different form at night.

Family Life

Slide 12



Rabbit - Kittens

Rabbit kittens are born underground in a burrow. They are born blind and hairless. Within three weeks, the kittens are weaned and join the adult rabbits in the warren.

A rabbit doe can have up to seven litters a year, with up to 10 kittens in each litter.



Hare - Leverets

Leverets are born above ground. They are born with hair and with their eyes open.

The mother leaves the leverets unattended in long grass, for safety. Her scent might attract predators. She feeds her leverets only once a day.

Hares only have two or three litters a year, with up to four leverets per litter.

Altricial



Altricial young are born underdeveloped and helpless. They require more parental care.

Precocial



Precocial young are born well developed. They are born reasonably self sufficient.

Video Clip

Slide 13

A litter of baby rabbits in a nest.

These are pet rabbits. It would be very difficult to film a nest of wild rabbits down a burrow. You can tell these are pet rabbits because they are all different colours.

Note how the kittens are blind and hairless. See how the doe has lined the nest with soft hair. She has pulled the hair from her belly.

Video Clip

Slide 14

A young leveret.

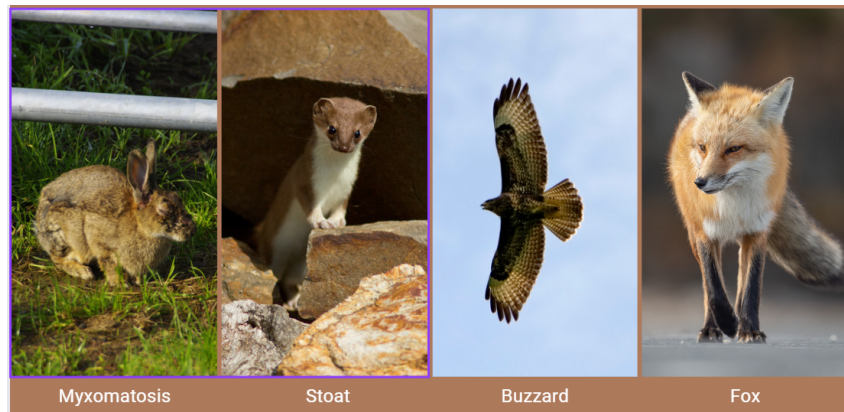
This leveret is only a few days old. Note how it is fully furred and has its eyes open. Its mother has left it alone. She will return to feed it at some point in the day.

What kills rabbits and hares?

Slide 15

Rabbits and hares are a very important part of many food chains.

Rabbits, in particular, breed quickly and provide a ready food source for many species.



Myxomatosis

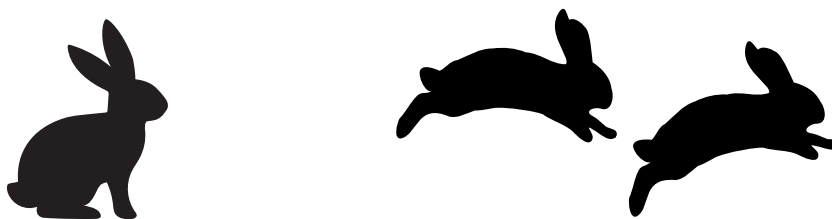
Myxomatosis is a virus that kills rabbits. It originated in America where it causes only a mild disease in native rabbit species.

Problems occurred in Australia when rabbits were introduced in 1788 by English settlers. The rabbits bred out of control. They had no natural predators to keep their numbers in check. Soon they were causing major damage to habitats and to farmland.

In 1950, the myxomatosis virus was introduced to Australia in an effort to control the rabbits. It worked amazingly well. Almost all the rabbits (99%) were killed by the disease. Since then, myxomatosis has been introduced to other countries to control rabbit numbers. It arrived in Ireland in 1954. This had a drastic effect on rabbit populations, with over 90% of rabbits being killed.

This in turn has had some serious effects on food chains in many countries. In Spain, Iberian Lynx and Spanish Imperial Eagles were driven to the edge of extinction by the loss of their main prey.

Thankfully, rabbits have developed some immunity, and myxomatosis is now not as lethal.



Video Clip

Slide 16

A rabbit eating grass and watching out for danger

Notice how alert this rabbit is. Big eyes and big ears are constantly on the alert.

Protect Nature

We believe that every child deserves the opportunity to learn, love and protect Nature.



Learn

Learning to recognise our native plants and animals



Love

Growing to love Nature.
We love what we know.



Protect

Protecting Nature.
We protect what we love.

Follow On Activities

Each of our lessons have a toolkit of other activities, designed for various ages.

These include colouring-in sheets for the younger children, crosswords, quizzes and other activities for the older ones.

Why not take the children out into nature? We have notes to help you lead a nature walk.

What Next?

Please check our website for more lesson plans and activities. We have lessons on mammals, birds, invertebrates and plants.

We would love to hear from you

We hope your class enjoyed this lesson, and that you found the resources easy to use.

If you have any suggestions on this lesson, or ideas for future lessons, please email us.

