

Education Pack:

Key Stage 1



British Hedgehog
Preservation Society



This pack contains the basis of what you need to teach children about hedgehogs.

The pack is designed to align with the National Curriculum, specifically Key Stage 1: Science.

Pupils are encouraged to explore the local environment throughout with outdoor activities and games.

Year 1

Plants: Pupils use a Spotter Sheet to identify and name common plants that hedgehogs use. They are also encouraged to think about the parts of the plants that may be used by hedgehogs and why e.g. leaves for bedding, bramble for structure of a nest.

Animals, including humans: Pupils learn the unique features of a hedgehog and use a Spotter Sheet to identify and name common insects that hedgehogs eat. They also learn about important senses to hedgehogs and how they use these as an omnivore, which is emphasised in the suggested games.

Everyday materials: Pupils explore what could be used to make a hedgehog shelter. They think about the properties of man-made materials and how they might be used to help wildlife.

Seasonal changes: Pupils learn about a hedgehog's life cycle across the year, particularly hibernation, in relation to the weather and food availability.

Year 2

Living things and their habitats: Pupils learn about a hedgehog's life cycle and special state of hibernation, as well as their habitat and their adaptations to that habitat. They identify and name plants that hedgehogs use to make nests, and insects that hedgehogs eat, using the Spotter Sheets, and explore micro-habitats. They learn about hedgehog food chains and webs.

Plants: The plants that hedgehogs use for nesting could be used as examples in observing how plants grow and their requirements.

Animals, including humans: Pupils learn about what hedgehogs need from their habitat, and about baby hedgehogs, or hoglets.

Everyday materials: Pupils brainstorm which man-made materials might be used to help wildlife. They are encouraged to compare and contrast the properties of these materials and why these would make them suitable for different uses. Pupils are also encouraged to think about how the shapes of objects might change when assembled.

Pupils across both years are encouraged to **work scientifically** by using a footprint tunnel within the school grounds. They use the simple survey equipment to gather and record data to answer the question of whether hedgehogs are present or absent. They identify and classify footprints found using the survey method, as well as plants and insects on the Spotter Sheets.

The pack comprises the following:

1. Lesson Plan
2. PowerPoint slides (divided into three parts)
3. PowerPoint slides with accompanying teacher notes
4. Activity "Games" Sheet
5. "Spot the Nesting Plants" Activity Sheet
6. "Spot the Insects" Activity Sheet
7. "Survey Objects" Teacher Resource Sheet
8. "Match the Footprints" Activity Sheet
9. Activity "Footprint Survey" Sheet
10. Activity "Identify Footprints" Sheet
11. "Ten Point Plan" Take-home Sheet



Illustration © Ceri Thomas 2019

Hedgehogs and the Curriculum: Key Stage 1 (Years 1-2)



Learning Objectives

1. To understand how hedgehogs are adapted to their habitat
2. To understand a hedgehog's habitat requirements
3. To understand why hedgehogs are under threat and why we survey for them
4. To set up a survey for hedgehogs in the school grounds
5. To brainstorm ideas to make the area hedgehog-friendly

Resources required:

- Projector/SMART board, laptop, presentation
- Activity sheets
- Large paper sheets to brainstorm
- Hedgehog tunnel kit

Activity	Duration		Reference
1	15 mins	Introduction to Hedgehog Conservation	<p>PowerPoint Presentation to introduce the species</p> <p>Introduce terms and key concepts of hedgehog conservation, adaptations to the environment and their requirements. To include the hedgehog's life cycle and hibernation.</p> <p>KS1 PowerPoint (Part 1)</p>
2	Variable	Hedgehog adaptations	<p>Indoor/Outdoor Activity</p> <p>Play games to demonstrate hedgehog senses (hearing, smell), rolling into a ball and hibernation.</p> <p>Activity - Games (1, 3 & 5)</p>
3	Variable	Hedgehog habitat	<p>Outdoor Activity</p> <p>Explore importance of plants in providing suitable habitat and insects as a food source.</p> <p>Use activity sheets to spot different plants used, and insects eaten, by hedgehogs in the school grounds.</p> <p>Investigate micro-habitats: log piles, under rocks, bug houses. Identify insect food.</p> <p>Consider materials for a hibernation house and good locations to site one.</p> <p><i>Additional: Create suitable habitats - leaf piles, compost heaps, sow wildflowers.</i></p> <p>Activity sheets - Spot the Nesting Plants & Spot the Insects</p>
4	15 mins	Hedgehogs under threat & People	<p>PowerPoint Presentation to look at threats to hedgehogs and understand why their numbers are reducing</p> <p>Talk about hedgehog decline and possible reasons why.</p> <p>Brainstorm ideas on ways to mitigate hazards.</p> <p>Look at reusing/recycling man-made materials to benefit wildlife.</p> <p><i>Additional: Design and create shelters/dens, feeders, bug homes.</i></p> <p>KS1 PowerPoint (Part 2)</p>
5	15 mins	Working Scientifically: Hedgehog Survey Task	<p>Indoor Activity</p> <p>Divide class into small groups; each is given a laminated survey object related to hedgehog detection. Groups to work together to decide how objects are used to find out where hedgehogs have been. Use large paper to write down answers/draw diagrams. Invite answers from each group.</p> <p>Use slides to talk about how to survey for hedgehogs.</p> <p>Ask children to match the footprints and talk about the different features of the prints.</p> <p>Teacher Resource Sheet - Survey Objects; KS1 Powerpoint (Part 3); Activity Sheet - Match the Footprints</p>

Hedgehogs and the Curriculum: Key Stage 1 (Years 1-2)



6	15 mins	Working Scientifically: Hedgehog Survey Task	<p>Optional: Outdoor Activity</p> <p>Set up a footprint tunnel in school grounds. Demonstrate how to set tunnel and how to remove and replace papers.</p> <p>Ask where children think the best place to put their tunnel is and why.</p> <p>Ask children to draw a map of the area making a note of fences, hedges and other features.</p>	Activity - Footprint Survey and Identify Footprints
7 & 8	15 mins	Design of results form for survey & design of Nature area	<p>Optional: Indoor Activity</p> <p>Design a results table/chart for recording the results for the footprint tunnel survey.</p> <p>Children to return to class to add to their maps ideas for making the grounds more hedgehog-friendly. Also to consider how other wildlife might use this nature area.</p> <p><i>Additional: Ask children to do the same for their own gardens.</i></p>	Activity - Footprint Survey and Identify Footprints

Working Scientifically: Hedgehog Survey Task

Resources Required:

- Hedgehog tunnel kit including white paper, ink mixture, food
- Wildlife Camera (optional)

Decide how you will monitor the footprint tunnel and how the children will be involved. Make and decorate results table to fill in as the tunnel is monitored over time.

Results could be recorded as a large pictorial results table "display" for the classroom wall. This could be decorated with children's hedgehog art and display any footprints or pictures of hedgehogs or any other animals collected from the tunnels and cameras.

Tables should always include the information in the table to the right but could include more information e.g. the weather for each night, what time animals were caught on camera.

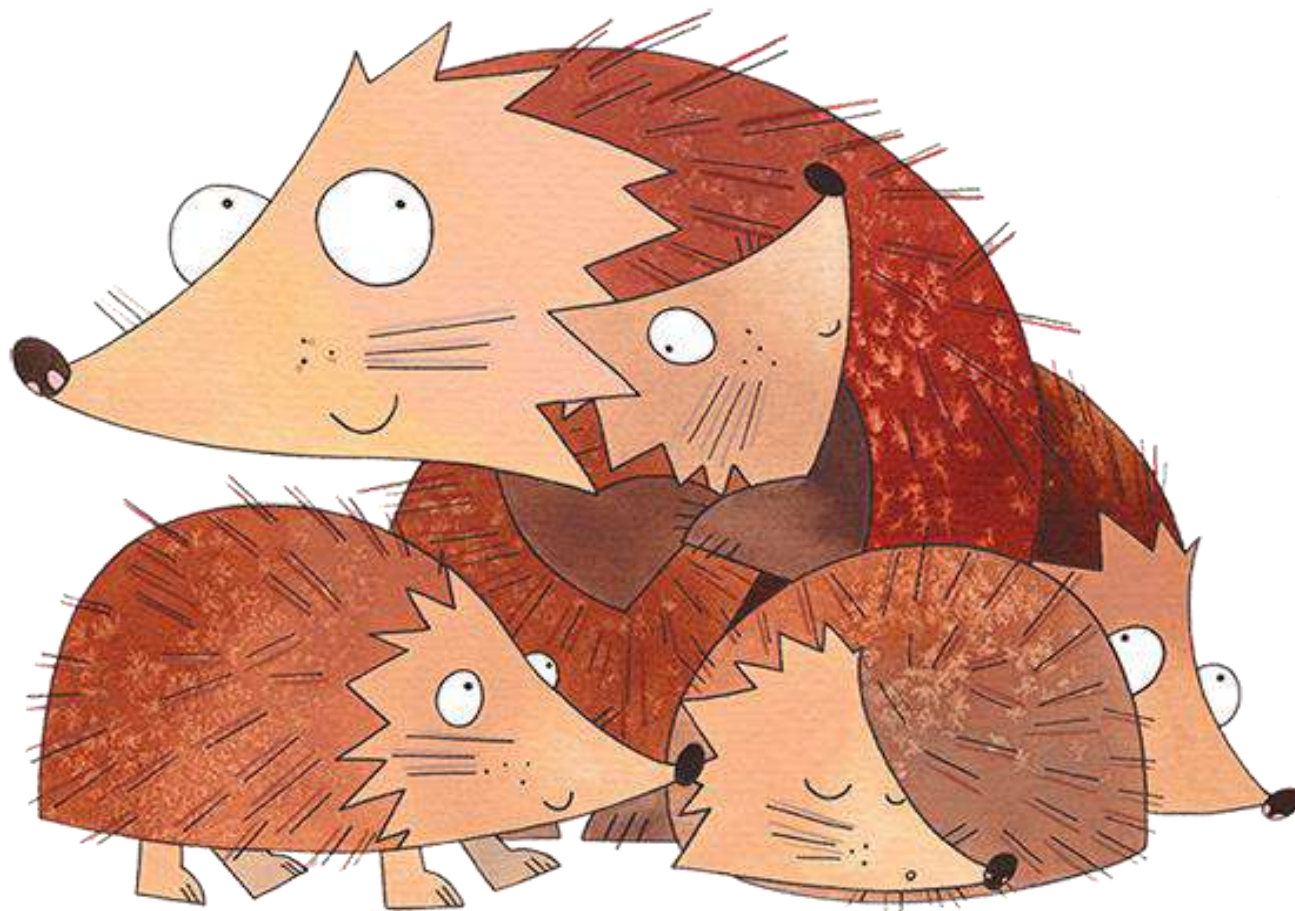
Tunnel Number	Date	Footprints?	Which animals made them?	Was the food eaten?
e.g. Tunnel 1	12/03/19	YES	HEDGEHOG CAT MOUSE	YES - SOME



Ten Point Plan

Give children a copy of the Ten Point Plan to take home with them and show their parents ways to help hedgehogs in their own garden.

KS1 Hedgehogs: Part 1



©Ann Scott, 2019



**British Hedgehog
Preservation Society**



Warwickshire

• What is a hedgehog?

Prickly

Omnivore

Mammal



©Steven Cheshire, 2019

Solitary

Snuffle & snort



British Hedgehog
Preservation Society



Warwickshire

What is special about hedgehogs?



Spines



©Ceri Thomas, 2019



©Ann Scott, 2019



©Deborah Wright, 2019

Great sense of smell

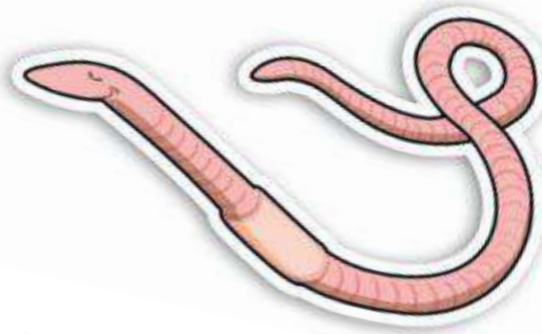
Nocturnal



British Hedgehog Preservation Society



•What do hedgehogs eat?



©Simon Thompson, 2019

100 mini-beasts per night

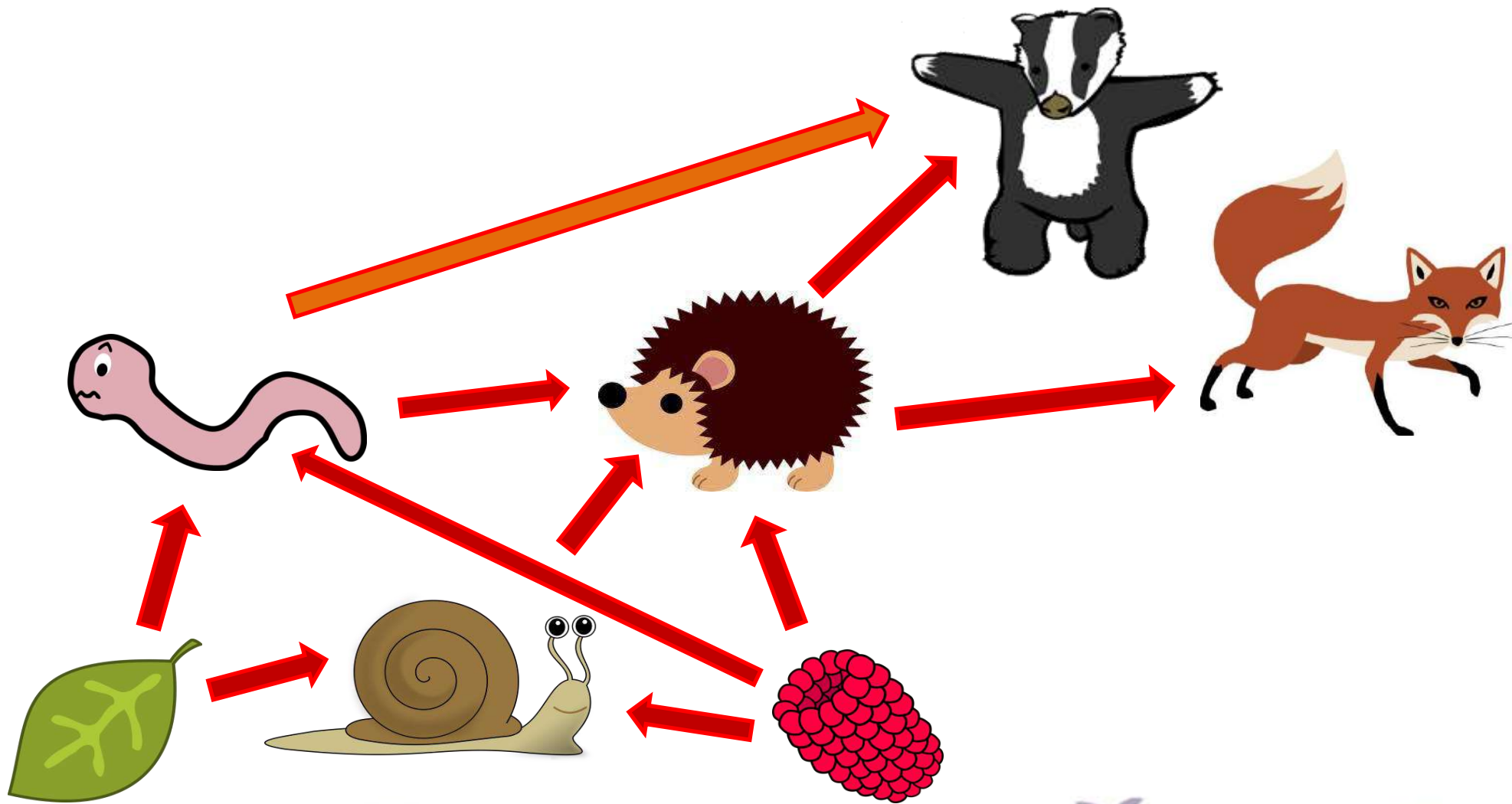


British Hedgehog
Preservation Society



Warwickshire

Food web



British Hedgehog
Preservation Society



THE
wildlife
TRUSTS

Warwickshire

Hibernation

November - March

Heartbeat slows

Breathing slows



©Pete Sanders, 2019



©Deborah Wright, 2019



**British Hedgehog
Preservation Society**



Warwickshire

Where are hedgehogs?

West European Hedgehog



©Deborah Wright, 2019

17 species in the world



©Wiki-vr and Ceri Thomas, 2019



**British Hedgehog
Preservation Society**



Warwickshire

Hedgehog Year

SPRING

Wake up hungry! Feeding
& looking for a partner

SUMMER

Hoglets born

WINTER

Hibernation

AUTUMN
Feeding & more babies
born



©Ceri Thomas, 2019



British Hedgehog
Preservation Society



Warwickshire

Hoglets



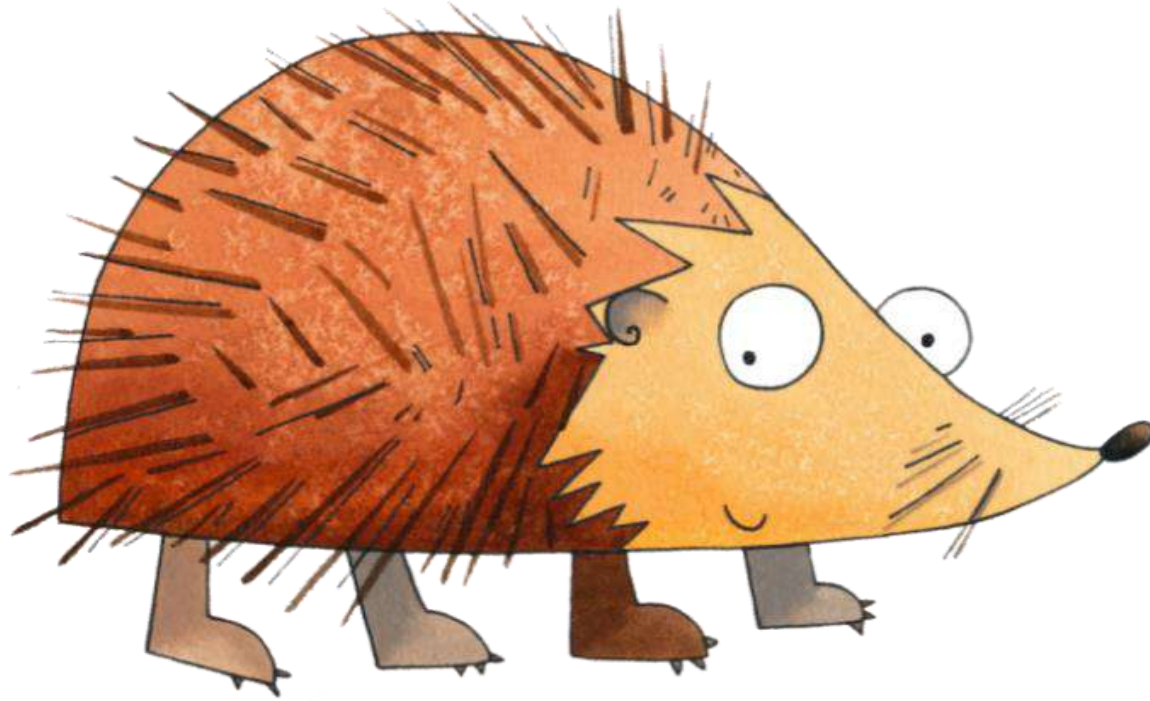
©Sally Marjoram, 2019

Quiz

1. What do we call animals that sleep in the day and are awake at night?
2. What are baby hedgehogs called?
3. Which word, starting with the letter O, means that a hedgehog eats both insects and fruit?
4. What is the name for the hedgehog's long sleep in the winter?



Time to be a hedgehog!



©Ann Scott, 2019



**British Hedgehog
Preservation Society**

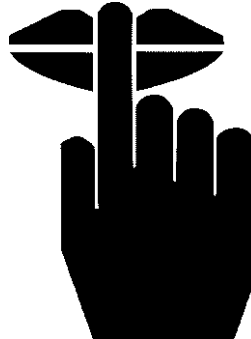


Warwickshire

Hedgehog Habitat



© WWT, 2019



© WWT, 2019



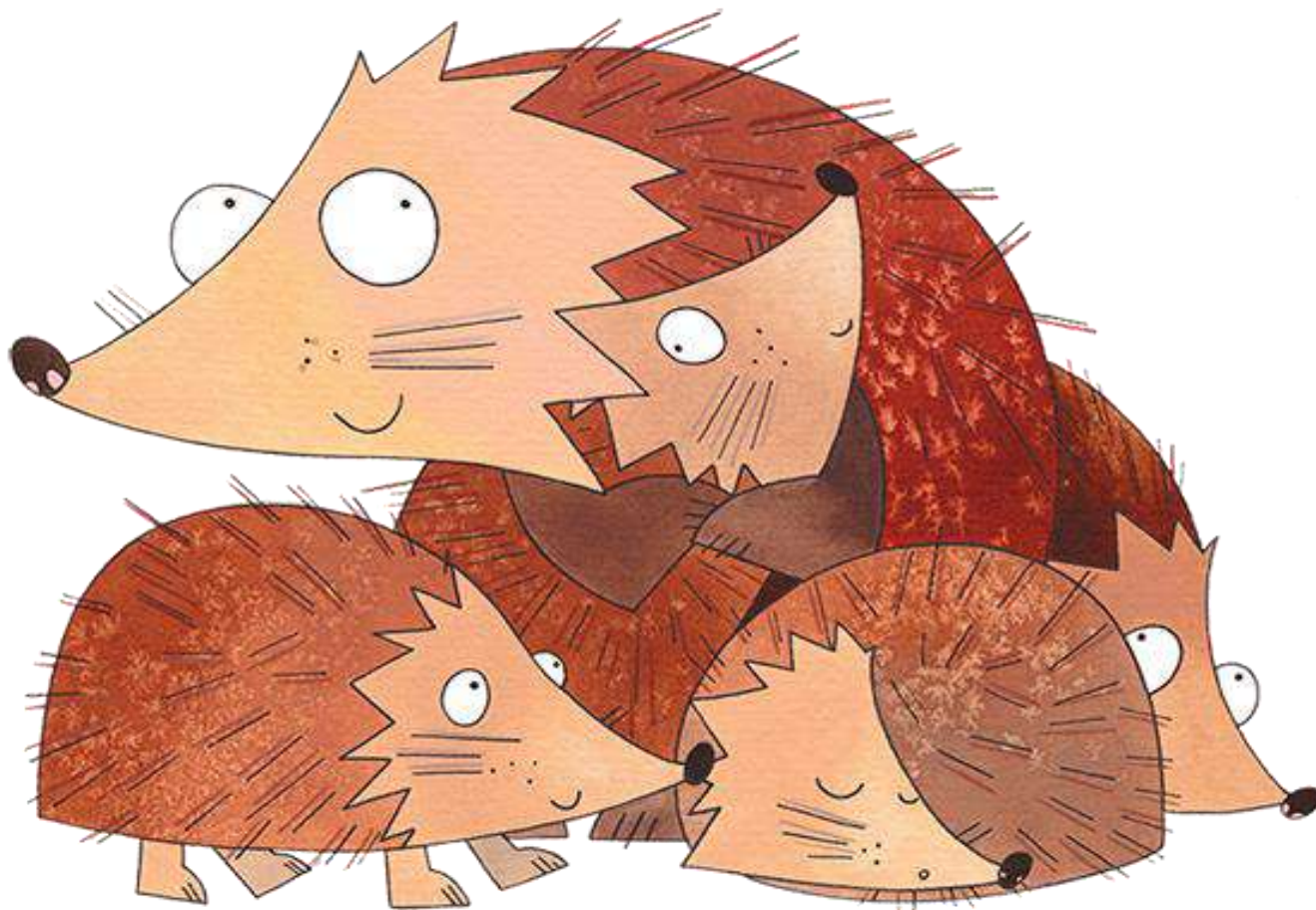
© Ceri Thomas, 2019



British Hedgehog Preservation Society



KS1 Hedgehogs: Part 2



©Ann Scott, 2019

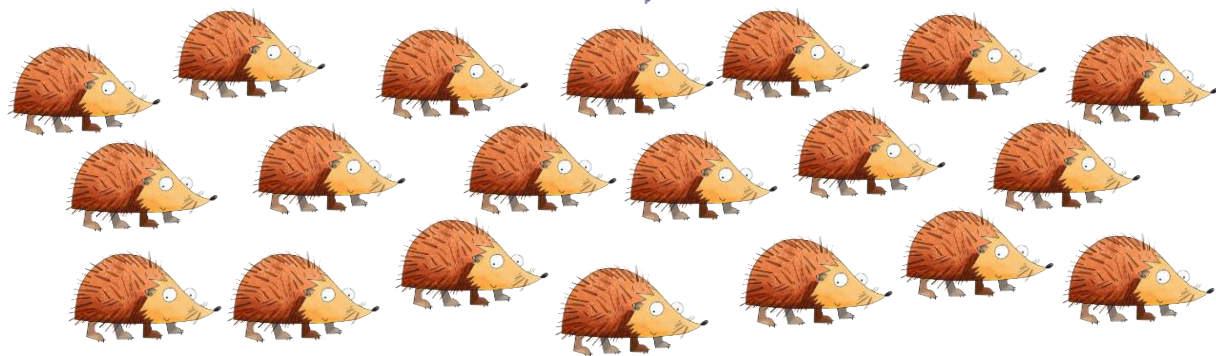
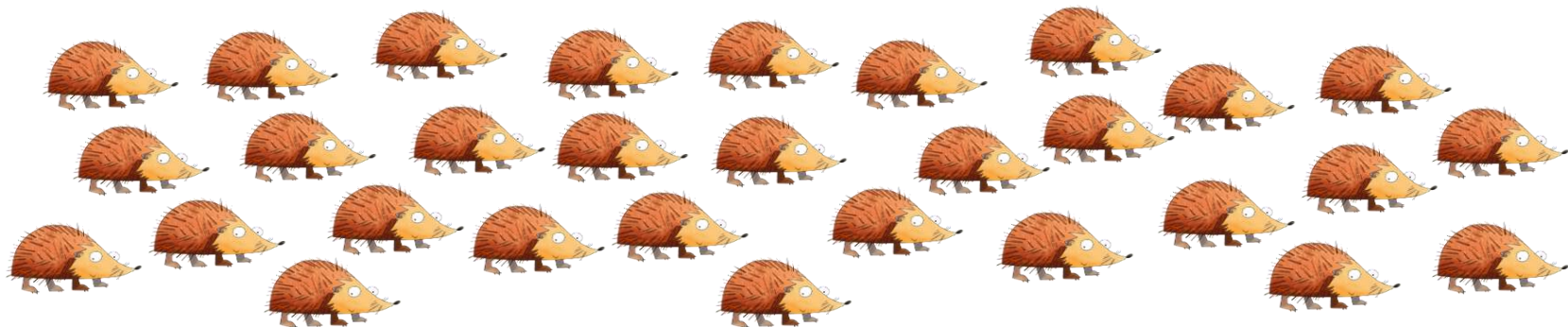


**British Hedgehog
Preservation Society**



Warwickshire

Hedgehog Numbers



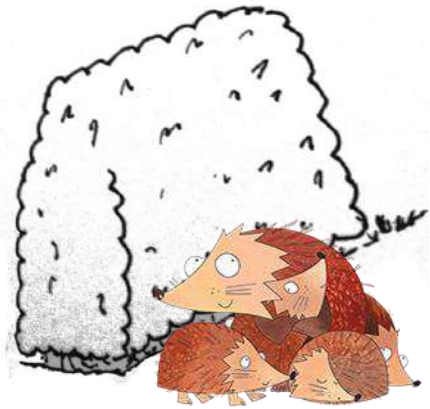
©Ann Scott, 2019



British Hedgehog
Preservation Society



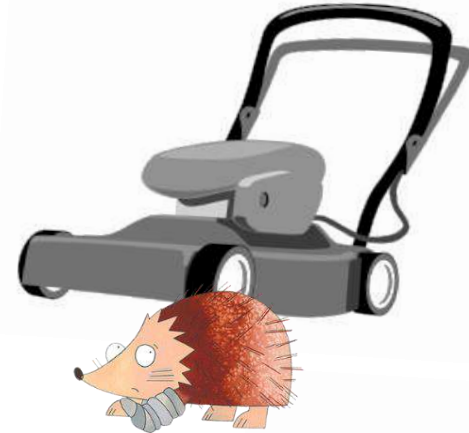
Problems for hedgehogs



Losing places to live



Chemicals



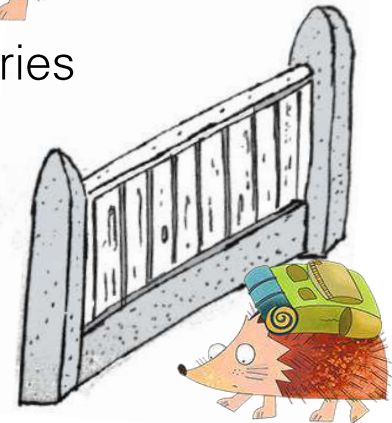
Injuries



Roads



Other animals



Walls & Fences



Helping hedgehogs



Leave a mess

Make a log pile



Bonfire night



Check before mowing



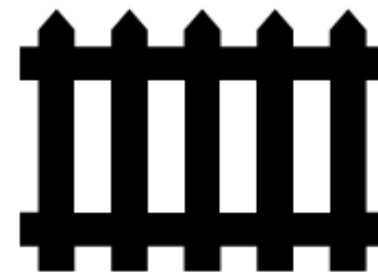
Make ponds safe

Don't use slug pellets



Pick up litter

Link your garden



British Hedgehog
Preservation Society



Warwickshire

Get Creative

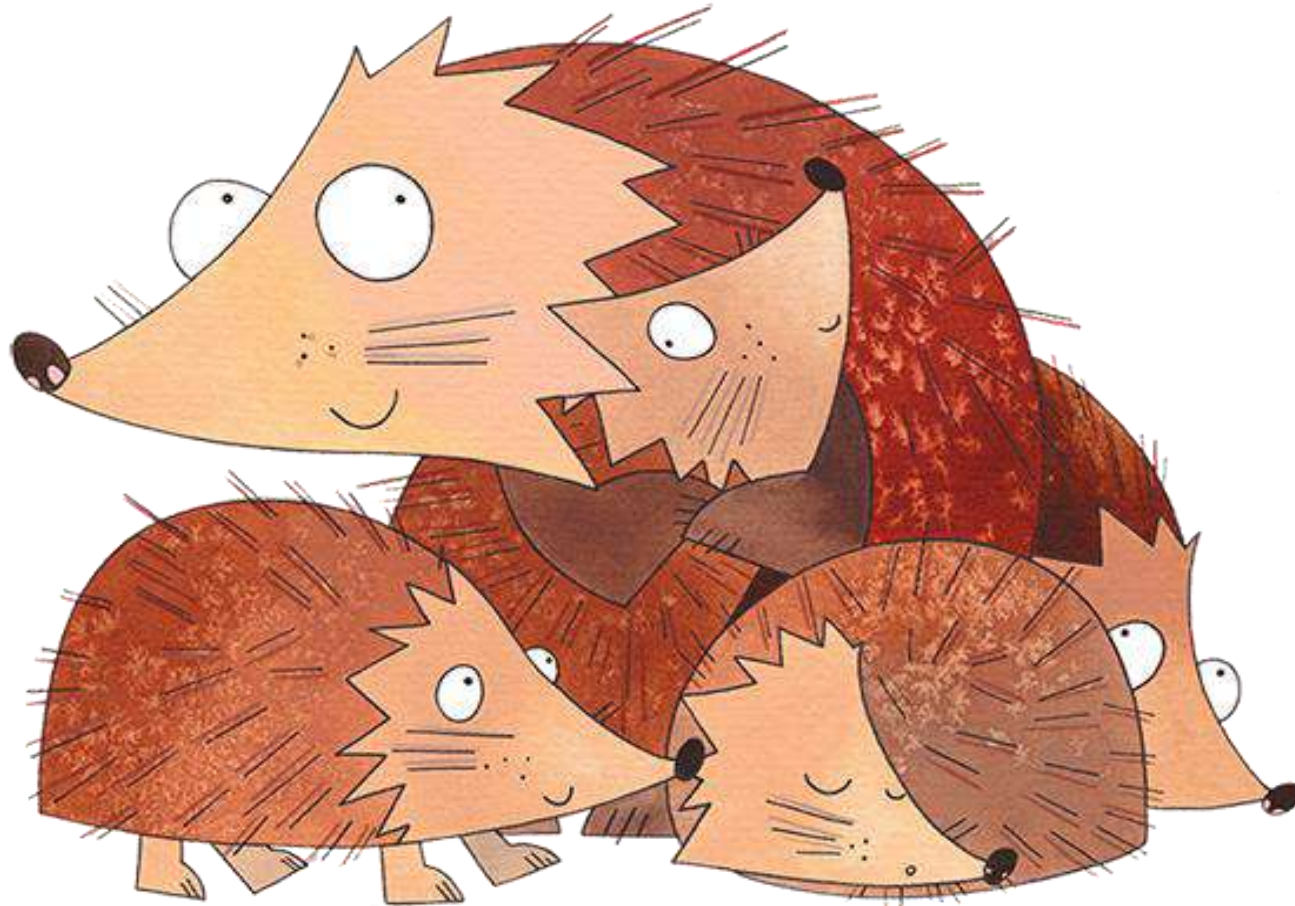
What materials could we reuse to benefit our wildlife?



British Hedgehog
Preservation Society



KS1 Hedgehogs: Part 3



©Ann Scott, 2019

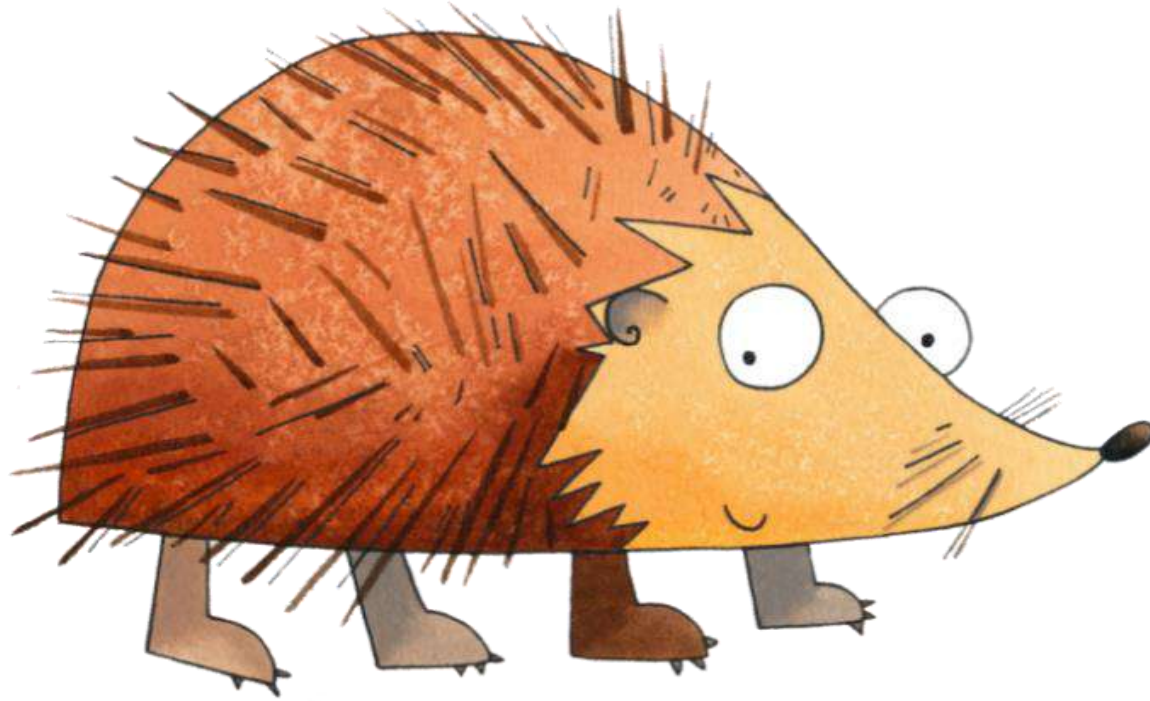


**British Hedgehog
Preservation Society**



Warwickshire

Finding hedgehogs



©Ann Scott, 2019



**British Hedgehog
Preservation Society**



Warwickshire

Torchlight surveys

By Torchlight



© Deborah Wright, 2019



© WWT, 2019



British Hedgehog
Preservation Society



HELP FOR HEDGEHOGS



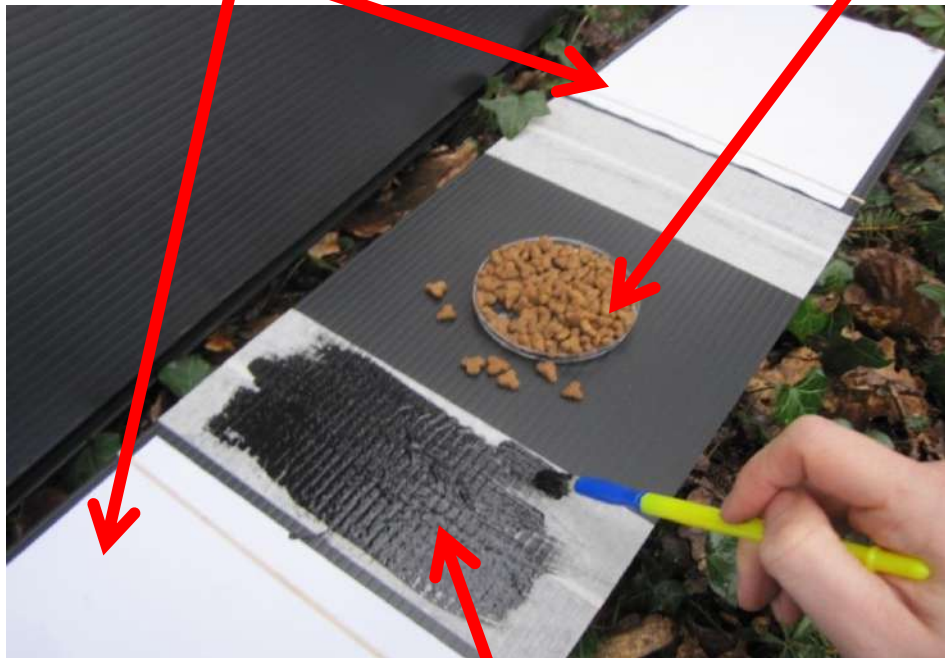
Warwickshire

Footprint tunnel surveys

White paper

Hedgehog food

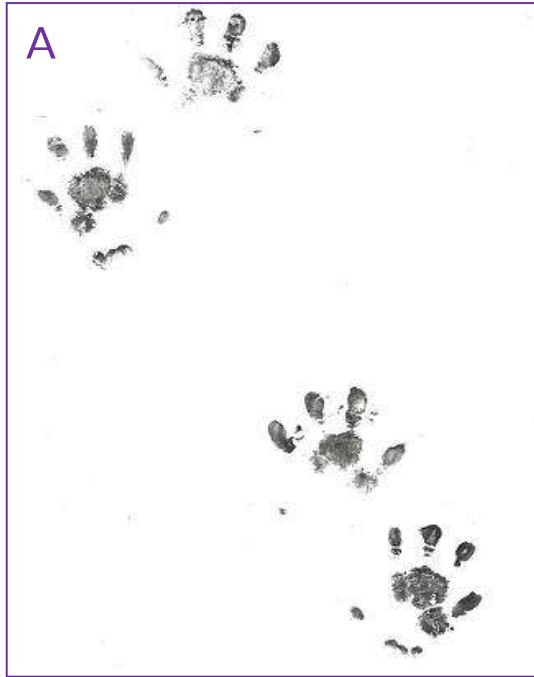
© Deborah Wright, 2019



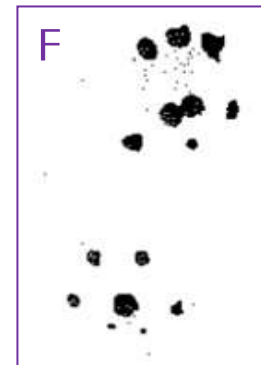
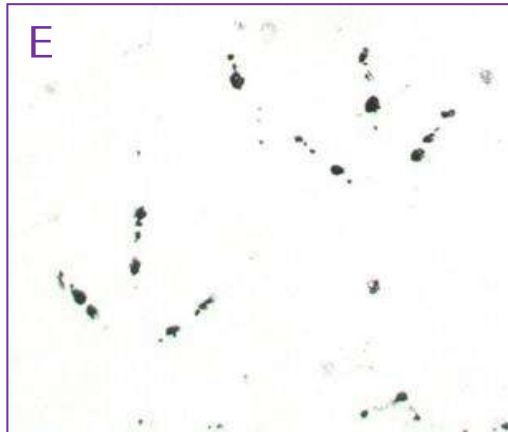
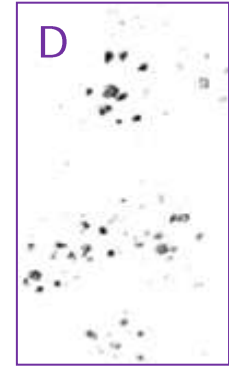
Place on an edge and leave overnight

Ink

Footprints



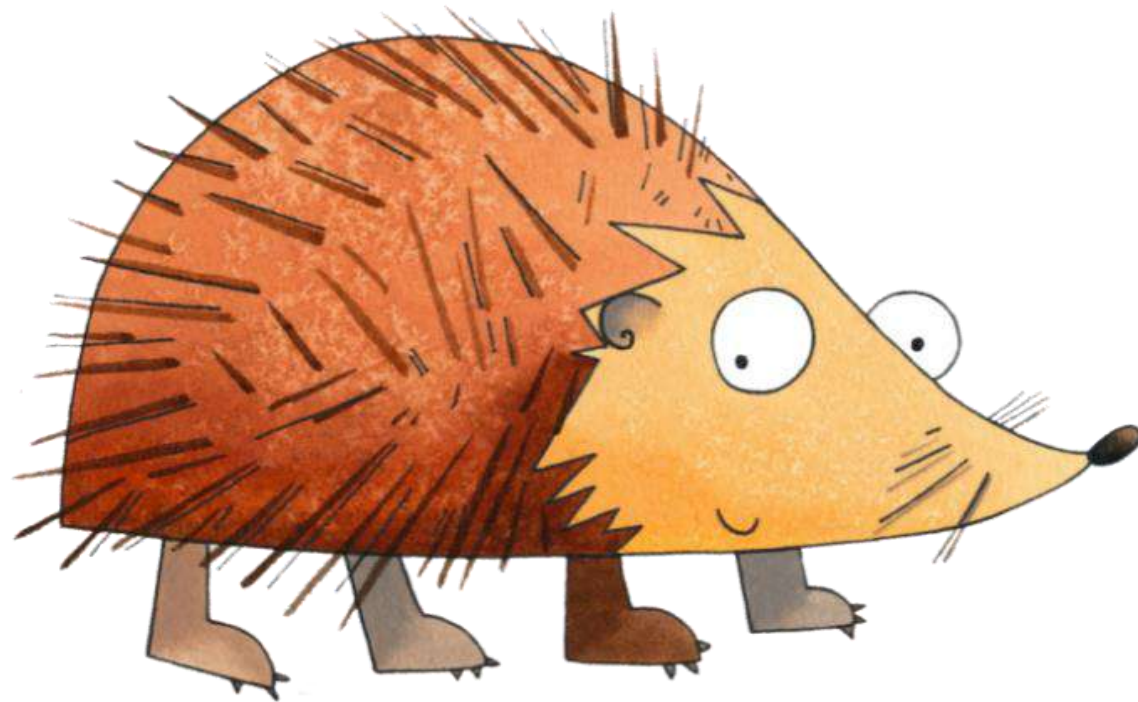
©VWWT, 2019



British Hedgehog
Preservation Society



Hope you enjoyed learning about our
prickly friends!



© Ann Scott, 2019

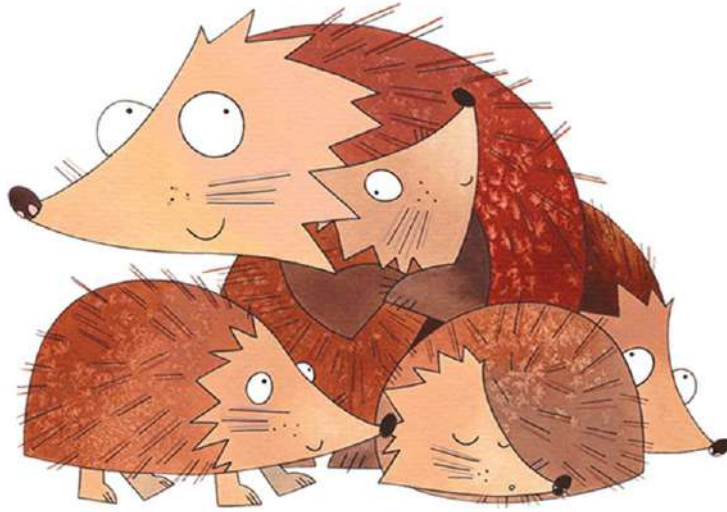


**British Hedgehog
Preservation Society**



Warwickshire

KS1 Hedgehogs: Part 1



©Ann Scott, 2019



British Hedgehog
Preservation Society





Ask the class what they think a hedgehog is.

It is prickly! Covered in spines.

It is a mammal.

It is solitary and does not live in groups like Badgers or Rabbits.

It is an omnivore. Ask children what omnivore means: it means it eats both meat and fruit/vegetables.

It snuffles & snorts! It got its name as it likes to live in hedges and snuffles like a pig.

What is special about hedgehogs?

Spines

Great sense of smell

Nocturnal

©Ceri Thomas, 2019

©Ann Scott, 2019

©Deborah Wright, 2019

British Hedgehog Preservation Society

THE wildlife TRUSTS
Warwickshire

Ask children how many **spikes** a hedgehog has.

Hedgehogs have up to 7000 spikes, hollow and prickly versions of our hair to protect them from harm.

Show the children using hands by crisscrossing fingers how spikes can be used to defend from above – spikes are attached to individual muscles so that spikes point in different directions.

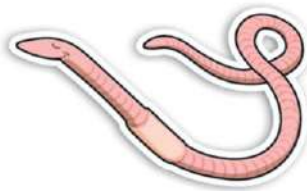
Ask children what hedgehogs do when they are scared.

Hedgehogs raise their spikes and **curl up into a ball**, using a special muscle that closes in on itself like a drawstring bag.

Hedgehogs have a **great sense of smell** and also good hearing, which helps them find their food.

They are **nocturnal** – ask children what nocturnal means: they come out at night and sleep during the day.

What do hedgehogs eat?



©Simon Thompson, 2019

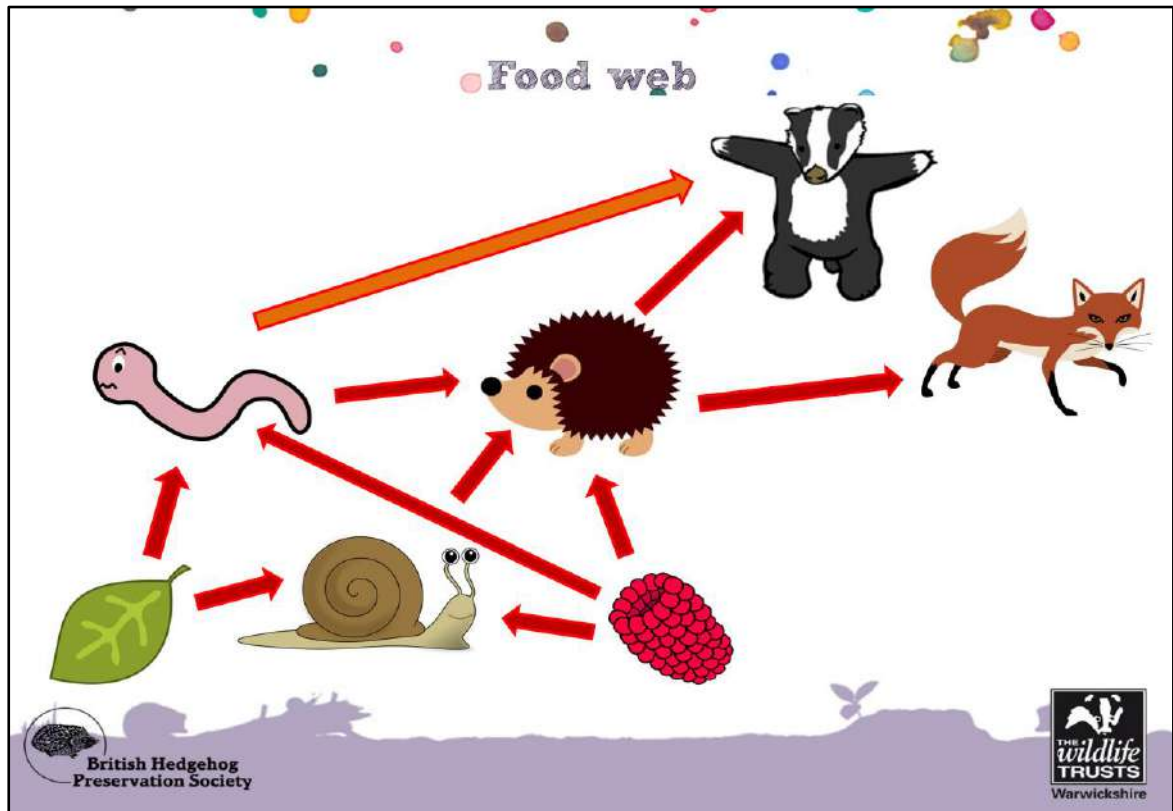
100 mini-beasts per night



Ask children what do hedgehogs eat.

Hedgehogs eat a wide range of insects, as well as birds eggs, frogs and occasionally fruit, hence they are omnivores.

Hedgehog poo is dark, about the size of an adult's little finger and contains the crunched up remains of a favourite food: beetles. This means it often glints and shines in the sunlight!



Badgers and foxes may sometimes eat or **predate** hedgehogs. But the food web shows that badgers also like to eat worms, like hedgehogs. So they may compete for the same food too.

Hibernation

November - March

Heartbeat slows

Breathing slows



©Pete Sanders, 2019



©Deborah Wright, 2019



British Hedgehog
Preservation Society



THE
wildlife
TRUSTS
Warwickshire

Hibernation is the hedgehogs way to survive winter. What happens in winter? It gets colder, it might snow, food is harder to find.

They curl up in a safe place – they make a nest of leaves under a hedge or in the compost pile or in a house we have made for them.

Their heartbeat and their breathing slows right down to save energy.

Demonstrate the heartbeat slowing with clapping and get the children to join in – clap once per second and then once every 3 seconds.

Ask children which speed uses more energy.

Where are hedgehogs?

West European Hedgehog



©Daborah Wright, 2019

17 species in the world



©Wiki-vi and Ceri Thomas, 2019



We only have one hedgehog here that is widespread across western Europe. There are 16 other species though in the world.
Ask children if they have been abroad. Have they seen other hedgehogs?



In spring, hedgehogs come out from their winter hibernation hungry – they are very active looking for food as well as looking for a partner.

In summer, they have litters of baby hedgehogs – **hoglets**. They usually spend 4 weeks in the nest when they are totally dependent on mum, then they have up to 4 weeks out looking for food with their mum before they are independent.

In Autumn, if the weather has been good, there can be late litters of hoglets. Autumn is all about last minute feeding to get their weights up ready for hibernation.

Winter is when they hibernate as there is little food available.

Hoglets



©Sally Marjoram, 2019



Picture 1 – just born, hoglets are born with their eyes and ears closed and with their spines covered by a thin sack of skin.

Picture 2 – a few hours later their baby spines start to appear. They are not able to fully roll up into a protective ball for at least 11 days so are very vulnerable.

Picture 3 – a few weeks old with more adult spines.

Quiz

1. What do we call animals that sleep in the day and are awake at night?
2. What are baby hedgehogs called?
3. Which word, starting with the letter O, means that a hedgehog eats both insects and fruit?
4. What is the name for the hedgehog's long sleep in the winter?



1. Nocturnal
2. Hoglets
3. Omnivore
4. Hibernation

Time to be a hedgehog!



©Ann Scott. 2019



British Hedgehog
Preservation Society



THE
wildlife
TRUSTS
Warwickshire

Play games to demonstrate hedgehog senses (hearing, smell), rolling into a ball and hibernation – see Activity Games sheet for ideas.



Ask the children where a hedgehog would like to live.

Somewhere quiet where there's food, there's leaves to make their nests and where they can get to easily.

OUTDOOR ACTIVITY:

Let's go outside and investigate our nature area using Spotter Sheets and Game 6.

KS1 Hedgehogs: Part 2



©Ann Scott, 2019

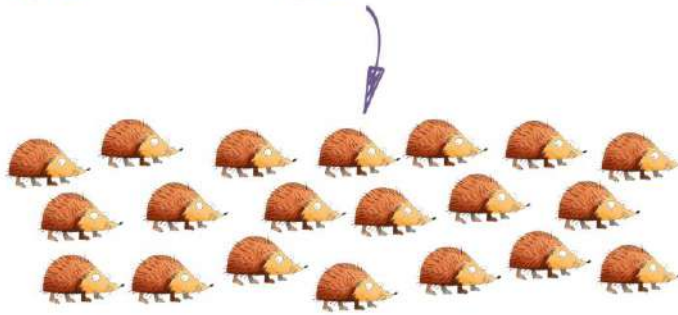


British Hedgehog
Preservation Society



THE
wildlife
TRUSTS
Warwickshire

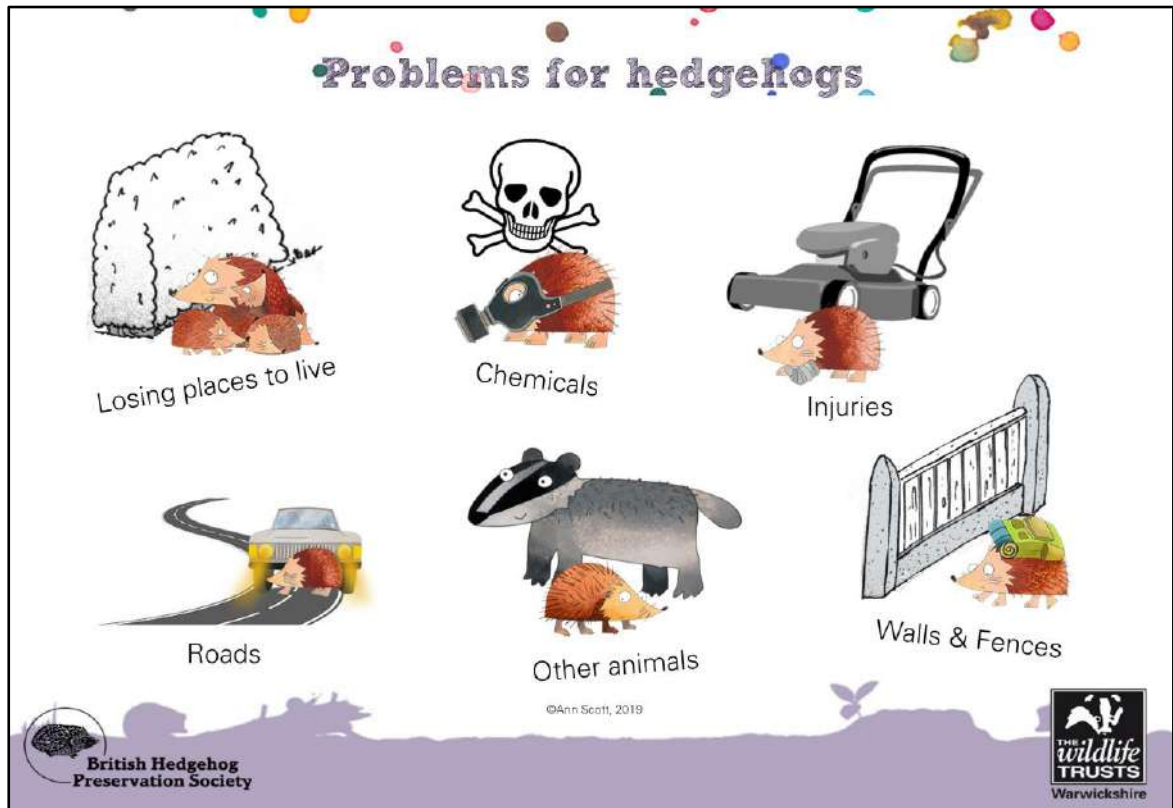
Hedgehog Numbers



©Ann Scott, 2019



Hedgehogs are in decline, which means there are fewer around than there used to be. We have lost a third of our 'hogs since the Millennium.



Ask the children why they think there are fewer hedgehogs around today.

There is not as much green space for them because we build a lot.

We use a lot more slug pellets and anti bug sprays. This means there are fewer bugs for them to eat.

They can hurt by lawn mowers and other tools.

There are more roads and a lot more cars than there used to be.

They have to compete with other animals for food and space.

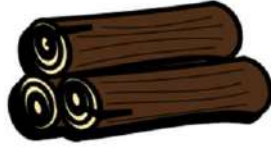
There are more walls and fences stopping them from moving around. They can no longer get into the gardens as people have put up barriers.

Helping hedgehogs



Leave a mess

Make a log pile



Bonfire night



Check before mowing



Make ponds safe

Don't use slug pellets



Pick up litter

Link your garden



British Hedgehog
Preservation Society



Ask the children of ideas to help hedgehogs.

Get Creative

What materials could we reuse to benefit our wildlife?



British Hedgehog
Preservation Society



THE
wildlife
TRUSTS
Warwickshire

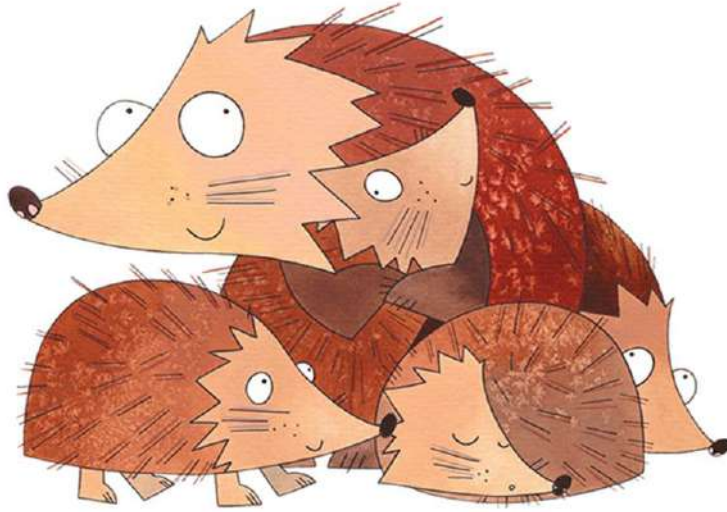
Look at recycling man-made materials to benefit wildlife.

Ask the children to name these items.

Ask the children to think about what we could use them for:

- Shelters
- Bug hotels
- Bird feeders
- Hedgehog feeding station
- Frog & Toad homes

KS1 Hedgehogs: Part 3

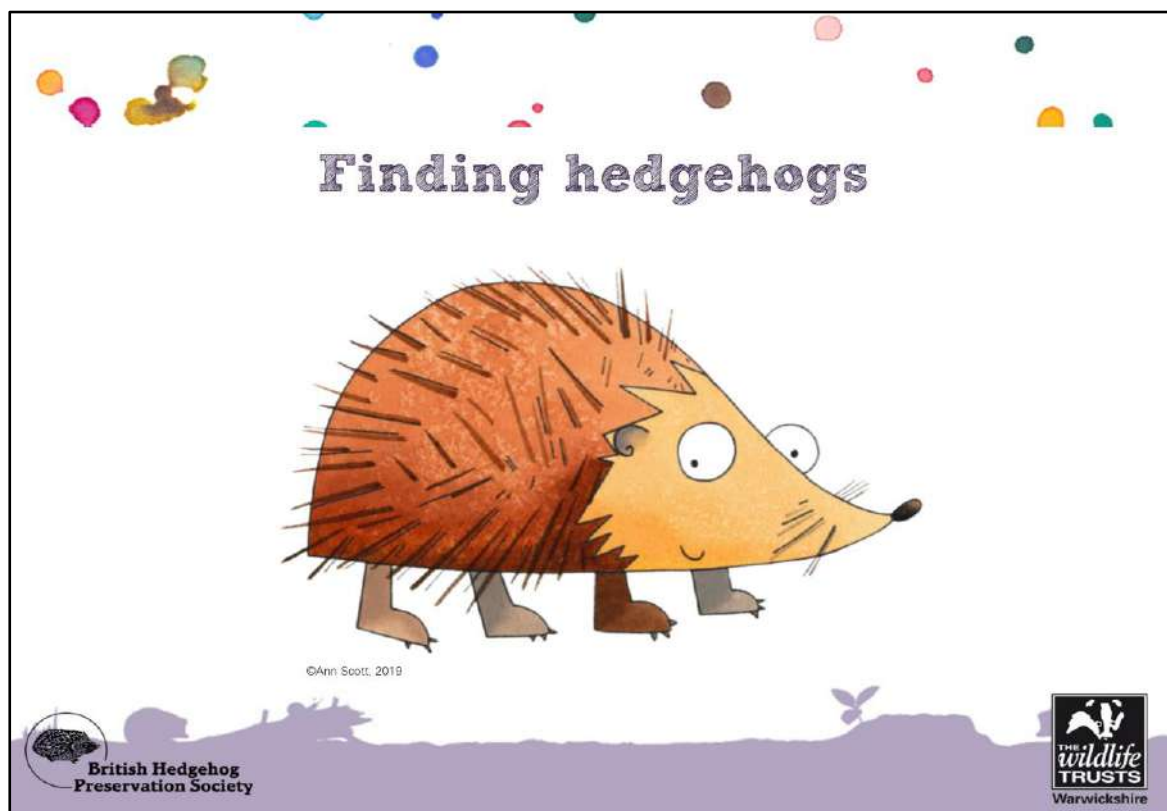


©Ann Scott, 2019



British Hedgehog
Preservation Society





INDOOR ACTIVITY

Use Teacher Resource Sheet - Survey Objects.

Split class into groups to decide how these objects are used to find out where our hedgehogs are. Could write down answers/draw a picture on large sheet of paper or just nominate a speaker from each group to announce their ideas to class.

Torchlight surveys

By Torchlight



© Deborah Wright, 2019



© WWT, 2019



British Hedgehog
Preservation Society



HELP FOR HEDGEHOGS



THE
wildlife
TRUSTS
Warwickshire

Two main ways to survey for hedgehogs.

1. Torchlight survey

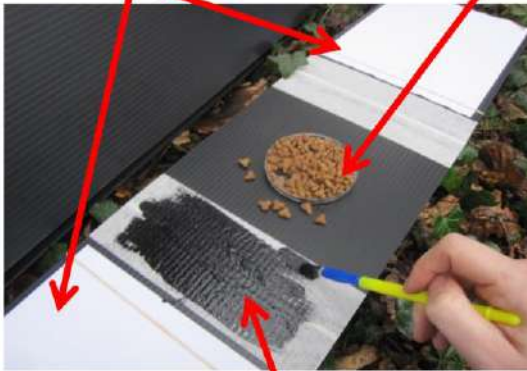
Surveyors walk routes at night looking for hedgehogs by torchlight, mapping where they are and checking their health when they are found.

Footprint tunnel surveys

White paper

Hedgehog food

© Deborah Wright, 2019



Place on an edge and leave overnight

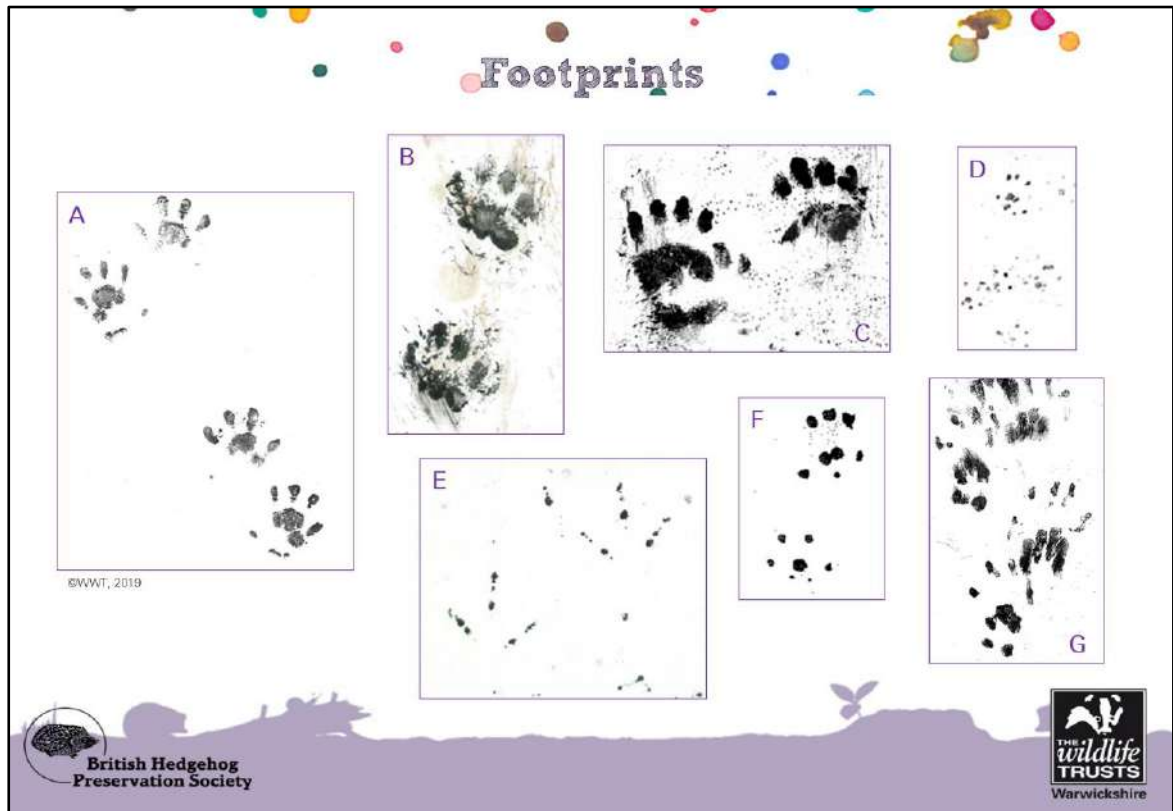
Ink



2. Footprint Survey

Demonstrate how we use footprint tunnels to find out if hedgehogs are in the area.

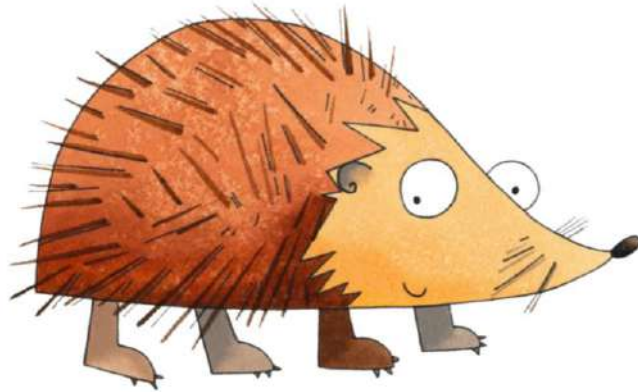
They smell the food we put inside and tread on the black charcoal so that they leave their footprints behind when they go.



Ask the children to guess the footprints.

- A. Hedgehog
- B. Cat
- C. Badger
- D. Small rodent
- E. Bird
- F. Rat
- G. Squirrel

Hope you enjoyed learning about our prickly friends!



© Ann Scott, 2019



British Hedgehog
Preservation Society



INDOOR ACTIVITY

Activity Sheet – Match the Footprints

Activity:

Games



British Hedgehog
Preservation Society



Danger: Adaptations & Habitat

Game 1

Learning objective – Hedgehog’s ability to roll into a ball and escape danger

All the children wander around making hedge-hoggy snuffling noises. You then shout “DANGER!” The children have to roll into a ball as quickly as they can.

Game 2

Learning objective – How habitat relates to having a safe place to shelter

Half of the children wander around making hedge-hoggy snuffling noises. Half of the children stand in a line, holding hands, they are a hedge.

You then shout “DANGER!” The children have to run behind the hedge to safety and roll in a ball. The last person to hide (or first to get caught in subsequent rounds) becomes a predator and has to try to catch one of the hedgehogs on the next round.

Each round shorten the hedge, making less and less space for children to hide behind, and more predators.

Nocturnal: Noises & Noses

Learning objective – Nocturnal animals rely on senses other than eyesight

Game 3

Noses

All of the children get given a cup, with either nothing, or something smelly in (herbs & plants). Choose a smelly cup from the circle, and let the blindfolded hedgehog sniff it. You then guide the hedgehog around the circle trying to locate the right smelly thing which they smelled.

Highlight how often nocturnal animals have a very well developed sense of smell and how this can be an adaptation to low light conditions.

Game 4

All of the children stand in a circle. One child is chosen to sit in the middle and wear a hedgehog blindfold (or you can make a hedgehog mask).

Noises

You jangle a bunch of keys or something else noisy in front of the hedgehog and put them on the floor in front of them. You then walk around the outside of the circle and tap one child on the shoulder, selecting them to go and pick up the keys and quietly take them back to their place in the circle. All children place their hands behind their backs, the blindfold is removed and the hedgehog has to point to who they think took the keys. The hedgehog will have needed to listen carefully using their hearing sense.

Vary difficulty by asking children to do different things: e.g. key taker shakes the keys; key taker walks around the outside of the circle before returning to their place first; the circle of children all make snuffling noises to disguise the sound of the keys; the children all drum on the ground to sound like footprints etc.

Highlight that hedgehogs listen for noisy prey like beetles, and listen for the noise of danger. Highlight the impacts noise pollution can have on animals relying on sounds.

Hibernation & Houses

Learning objective – Hedgehogs hibernate to save energy and need a safe place to shelter.

Game 5

Ask the children to walk around in a circle. When you shout “go to sleep”, they must all curl up in a ball. Cover a child with a blanket, then shout “who’s hibernating?” The children must guess who’s hidden under the blanket.

Game 6

Tell the children that lots of animals have gone into hibernation at the moment and that they need really nice cosy houses to sleep in. Ask the children what they think the animals would need from their house and what they could make it out of. In pairs or threes instruct them to go off and build a house – you could provide them with a toy hedgehog. Walk round and look and offer advice and ask them questions about them.

Activity Sheet:

Spot the Nesting Plants



British Hedgehog Preservation Society



How many of these plants that hedgehogs use to make their nests can you find?

LIME



© Alvesgaspar [CC BY-SA 3.0 (<https://creativecommons.org/licenses/by-sa/3.0/>)] 2019

HOLLY



© Philip Precey 2019

BRAMBLE



© AnemoneProjectors - Peter O'Connor (talk: Flickr) [CC BY-SA 2.0 (<https://creativecommons.org/licenses/by-sa/2.0/>)] 2019

OAK



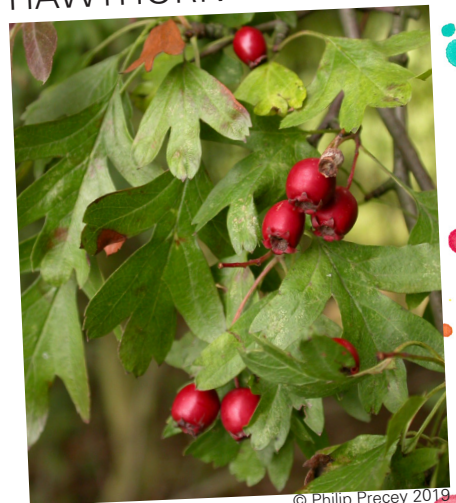
© Dr Malcolm Storey 2019

HONEYSUCKLE



© Walcoford [CC BY-SA 3.0 (<https://creativecommons.org/licenses/by-sa/3.0/>)] 2019

HAWTHORN



© Philip Precey 2019

BLACKTHORN



© Amy Lewis 2019

CHERRY



© SABENCIA Guillermo César Ruiz [CC BY-SA 4.0 (<https://creativecommons.org/licenses/by-sa/4.0/>)] 2019



Illustration © Ceri Thomas 2019

Activity Sheet:

Spot the Insects

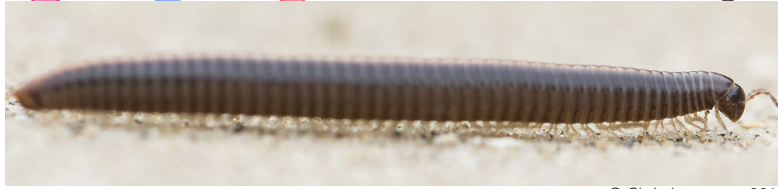


British Hedgehog Preservation Society



How many of these tasty hedgehog treats can you find?

MILLIPEDE



© Chris Lawrence 2019

CATERPILLAR



© David Short from Windsor, UK [CC BY 2.0 (https://creativecommons.org/licenses/by/2.0)] 2019

EARWIG



© Chris Lawrence 2019

GROUND BEETLE



© John Bridges 2019

EARTHWORM



© Alan Price 2019

SLUG



© Vaughn Matthews 2019

SCARAB BEETLE



© Ben Sale from Stevenage, UK [CC BY 2.0 (https://creativecommons.org/licenses/by/2.0)] 2019

WEEVIL



© Vicky Nail 2019

CRANE FLY LARVA



© Dr Malcolm Storey 2019

Illustration © Ceri Thomas 2019



Teacher Resource Sheet:

Survey Objects



British Hedgehog
Preservation Society



Print the objects with their matching names, cut each one out and laminate



Thermal camera

© Simon Thompson 2019



Hedgehog Poo



Torch



Nighttime camera



Footprint tunnel

Activity Sheet:

Match the Footprints



British Hedgehog Preservation Society



Draw a line from the footprint to the animal you think made it

1



2



3



BIRD

HEDGEHOG

RAT

FOX

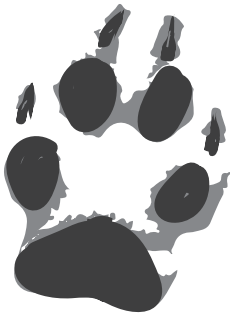
SQUIRREL

TOAD

BADGER

CAT

8



4



5



7



6



Illustration © Ceri Thomas 2019

Activity:

Footprint Survey

Discovering whether hedgehogs are using your school grounds is easy, fun and a fantastic way to engage the whole class in hedgehog conservation, whilst being outdoors.



British Hedgehog Preservation Society



Illustration © Ceri Thomas 2019

Your footprint survey can take place at any time *between May and September* and should last for *five consecutive nights*. The aim is to draw hedgehogs into a tunnel using hedgehog food as bait. Once inside the tunnel their paws will get covered in an ink mixture and as they exit paw prints will be left behind on white A4 paper inside the tunnel.

What you will need:

- 1 footprint tunnel
- Fine charcoal & vegetable oil/powder paint
- Hedgehog food or meaty cat/dog food
- 10 sheets of A4 white paper
- 8 brass paper fasteners/paper clips
- 1 small, shallow dish for food
- 1 small square sponge
- 1 jam jar
- 4 tent pegs (optional)

1. Prepare your tunnel

Inside your jam jar mix up a 1:1 solution of charcoal powder and vegetable oil. Take the tracking plate out of the tunnel and use the sponge to apply a 2mm thick layer of the charcoal mix to the masking tape strips. Write the date on two pieces of paper and use paper fasteners to attach one sheet to each end of the tracking plate, piercing the plastic if necessary. Add hedgehog food to the bowl and place in the centre of the tracking plate. Carefully put the tracking plate back into the tunnel.

3. Survey

Leave the tunnel overnight and return to check it in the morning. Take out the tracking plate, remove the paper and replace it with fresh sheets. Replenish the supply of food.

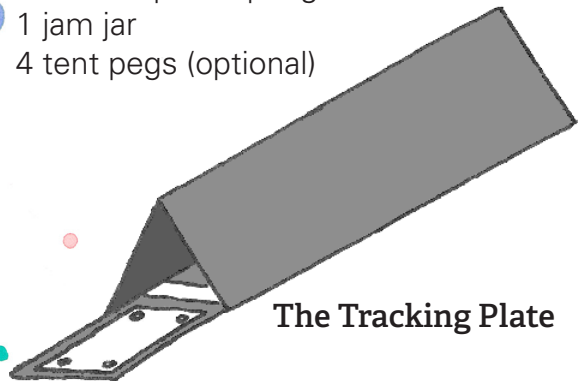


Hedgehog in tunnel, 2016

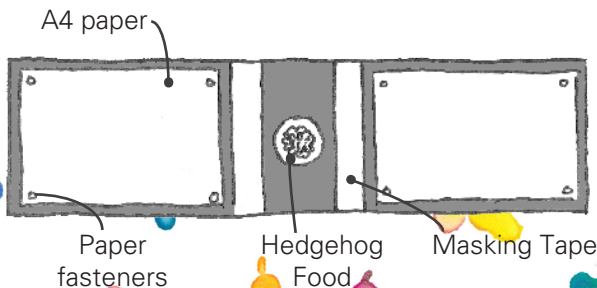
2. Position your tunnel

Your tunnel should be placed lengthways along an edge e.g. hedge. The entrance and exit should be lying flat against the ground to allow the easiest possible access. If you want to anchor your tunnel to the ground, use tent pegs to do so.

If you have recorded footprints use an ID guide to identify the animals which have left their mark. Repeat your survey for 4 more nights and use a table to keep track of your results.



The Tracking Plate



Important Health and Safety

Always wash hands after touching the tunnel. Many small mammals will be in and out of your tunnel. They may leave urine and faeces behind which can be harmful to humans. Rodents can carry Weil's disease so please wash hands thoroughly before eating, drinking or smoking.

Getting a Tunnel

Tunnels can be made from scored correx plastic held together with velcro, masking tape strips for the paint to go on and a petri dish for the food. Alternatively they can be purchased from <https://www.wildcare.co.uk/tracking-tunnel.html>. You can also make a footprint trap using sand: <https://www.wildlifewatch.org.uk/activity-sheets>.



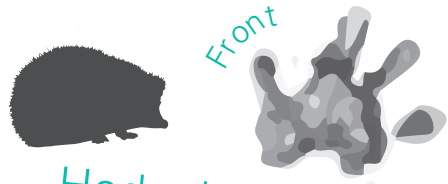
Activity:

Identify Footprints

The footprints shown on this guide are life size so you can compare them directly with the prints that you've collected to help you figure out which animals have visited your tunnel. Look closely at the number and position of the toes and the shapes that each print is made of to help you. Good luck!



British Hedgehog Preservation Society



Front

Hedgehog

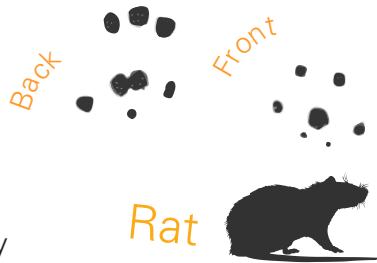
Back

Hedgehog footprints are really easy to identify. Most simply recognised by their **hand-like shape**, hedgehog prints often have a very clear 'thumb'; a single toe print which sticks out at a 45° angle to the rest. Adult hedgehogs leave prints **about the size of a 50p**.

Small rodents, like wood mice are regular visitors to footprint tunnels. Look out for lots of **very small footprints** made up of tiny round dots. Front paws are quite clearly made of **seven dots in a**



Small Rodent



Back

Front

Rat

Rat prints are a **similar shape to smaller rodents**, but they can be as large as hedgehog prints. Remember to look out for the distinctive front footprint made up of **seven very round dots**.

Badgers have a **very large print with five forward facing toes**. The central pad is very broad, usually as wide as all five of the toes. You often also see marks made by the badger's claws.

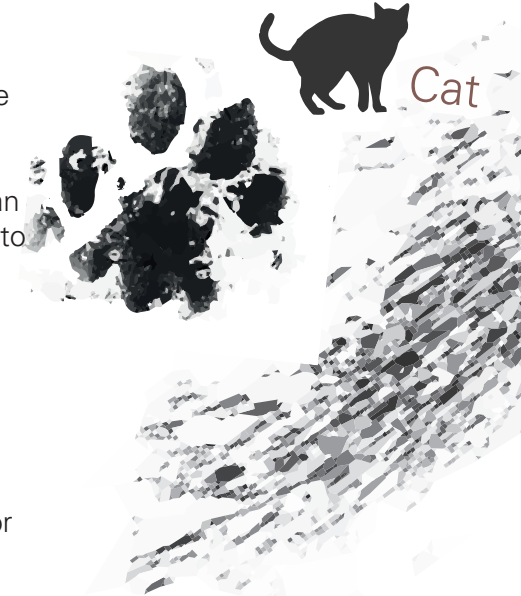


Badger

Cats leave very distinctive prints, four forward facing toes, with very little space between the toes and main footprint. At the heel of a cat print there is a clear downward curve. Dogs and foxes have an upward curve, this is a really useful way to help to tell them apart.



Cats often leave behind other marks on the paper, the swiipe of a long tail or furry paws dipped in ink leave dappled or sweeping prints like the tail print to the



Cat



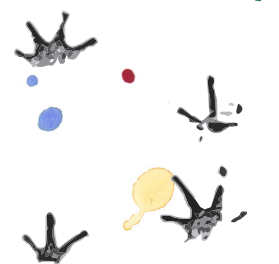
Bird

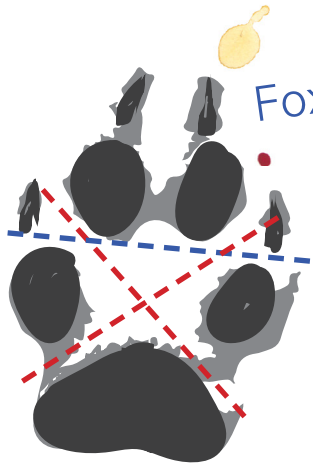
Birds leave groups of **prints with three toes facing forward** and a **single print in the centre at the back**. They can be a variety of different sizes, ranging from small robin prints to the larger blackbird.

Newts leave **small, pointy, webbed prints** with up to **five toes visible in a 180° arc**. You can sometimes see round marks left by the tips of the toes.



Newt

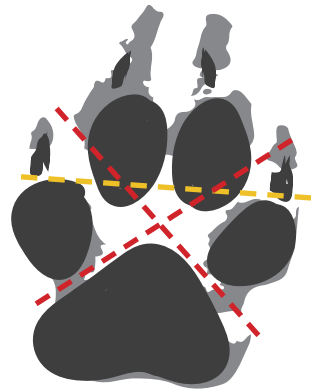




Fox



Foxes have an excellent sense of smell and so are fairly regular visitors to footprint tunnels. Their prints have **four forward facing toes**, often with **claw marks** above them. There is quite a large space between the fox's pad and the toes. If you have a fox print, you should be able to draw a straight line between the four toe prints, without any of the toes crossing the line; shown by the **blue dashed line** on the illustration.



Dog prints are similar to fox with **four forward facing toes** and often claw marks. There are some clear ways to tell the difference between the two: If you draw a straight line between the four toes of a dog footprint, the line will be crossed by the front two toes; as illustrated by the **yellow dashed line** opposite.



Dog

Another **useful trick to separate fox and dog prints** is to draw a cross in the space between the prints, shown with the **red dashed lines above**. In a fox print you can draw a cross without touching any of the print, however in the dog



Common Toad

Toads leave peculiar prints, often described as 'spidery', their prints are a complex series of blotches arranged in **roughly star shaped groups**. You can imagine the toad sitting with feet together and **toes spreading out in either direction** as indicated by the **green lines opposite**.

Squirrel



Front

Back

Squirrel prints have a similar shape to other rodents, with a **symmetrical set of four or five round toe prints** visible above a **long foot pad**. Squirrel prints are noticeably **larger and longer than rat prints**, owing to their large, tree climbing feet.

Hedgehog



Illustration © Ceri Thomas 2019

ID Tips

Looking at the size of prints compared to others can be a really useful way to help you to identify them. But remember that you might see prints from very big cats, very small dogs or perhaps very young animals like hoglets. Always look at the shape of the footprint as well as its size to help you figure out which animal left it.

Found hedgehog prints?

Log your 'hog on a national map through Hedgehog Street: <https://bighedgehogmap.org/>.

Ten Point Plan

Tick all 10 to create hedgehog heaven

01 Tick Box

Link your garden



02 Tick Box

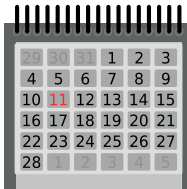
Keep a wild area

Hedgehogs need dry, sheltered places to nest.

03 Tick Box

Do not disturb

Avoid disturbing hibernating 'hogs from November to April.



HOW?

Hedgehog numbers are in rapid decline and we need to take action to help them.

Hedgehog numbers are down by a third in Britain since the Millennium.

Making a 13cm square hole in your fence, the same size as this white box, will let even the largest hedgehogs into your garden.

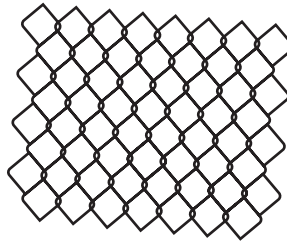
Once you've made your hedgehog hole, why not talk to your neighbours and ask them to do the same?



04 Tick Box

Check before mowing

Mowers and strimmers can cause serious harm to nesting hedgehogs.



08 Tick Box

Tie up garden netting

Hedgehogs get tangled in slack garden netting.

05 Tick Box

Make a log pile

Rotting wood attracts lots of insects for hedgehogs to eat.



09 Tick Box

Don't drop litter

Hedgehogs can get caught up in our rubbish and be seriously injured.



06 Tick Box

Don't use pesticides

Pesticides reduce the food available for hedgehogs.

10 Tick Box

Log a 'hog

Map your hedgehog sightings with Hedgehog Street: <https://bighedgehogmap.org/>.



07 Tick Box

Make ponds safe

Hedgehogs can get stuck in ponds. Build a ramp or ladder to help them get out.

