

Environmental Awareness Activity Book



Created by
Niamh Moran, Assistant Environmental Awareness Officer



Additional Resources

This activity book was created to facilitate learning about biodiversity and waste management.

This workbook contains activities that are adaptable to being carried out in the school or home environment.

Additional Resources

The following additional resources to accompany this workbook are available on the Environmental Awareness and Education webpage which can be found [here](#) .

- dlr Wildflower Guide
- Tree Planting Guidebook
- Trees to Plant in the School Garden Poster
- dlr Activities to do at Home Guide
- Popular Trees in the School Garden Video
- Patricia the Painted Lady Butterfly by Dale Treadwell
- Butterfly Fact Sheet



Please note that parental supervision is advised for any activity containing the following symbol.

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UPCYCLING AND RECYCLING



zero
waste

Managing Waste

What is Waste?

Waste is created when we produce more than we can use.

What is litter?

Litter is waste that has been disposed of incorrectly and in an inappropriate location. Litter is a type of pollution.

Why is it important we reduce litter in our community?

- Litter can ruin the appearance of our community
- It can be dangerous to animals
- It attracts pests

3 SIMPLE STEPS TO REDUCE YOUR WASTE

LOWER THE AMOUNT OF WASTE YOU PRODUCE

One of the biggest actions we can take to reduce our waste is to lower the amount of things we throw away!

REUSE

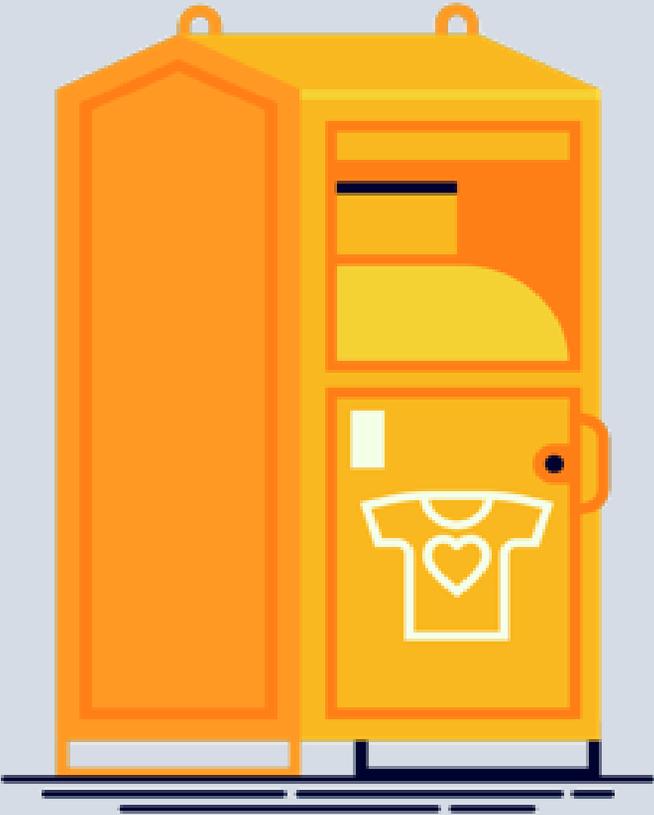
A lot of the times the waste we produce can be reused for another purpose. Perhaps you have an old t-shirt you can turn into a bag or your parents might have a reusable coffee cup! Can you think of any items you have that are reusable?

RECYCLE

If you find that you can't reuse your waste, the next best option is to recycle it! Recycling your waste is the process of turning something into something new. Check out the next page where we learn about some examples of what can go in the recycling bin.



Recycling Quiz



A Recycling Centre



General Waste



A Compost Bin



A Recycling Bin



Recycling Quiz

Learn about what goes in each type of the below bins

A Recycling Bin



- Hard Plastics
- Tins and Cans
- Paper and Cardboard

General Waste



- Any rubbish placed in the refuse bin is waste that can't go in the recycling, compost bin or a recycling centre

A Compost Bin



- Fruit and Vegetable Peelings e.g. fruit peeling from lunch break
- Grass
- Shredded Paper

A Recycling Centre



- Glass
- Clothes
- Batteries
- Lightbulbs



The following items need to be put in the bin, can you name the correct bin?

Plastic Bag

Vegetable Peelings

Plastic Bottle

Newspaper

Carboard Box

Sweet Wrappers

Glass Jar

Batteries

Can

Composting Experiment

What you will need

- An empty clear container for example, a 2l bottle or glass jar
- Soil, leaves, grass, newspaper
- Food waste (such as vegetable peelings- no dairy or meat!!)



How to make your composting experiment

- In your empty container add a layer of soil and then alternate layers between your compostable material and soil.
- Once your container is full, add water, your compost should be damp throughout but not sitting in water.
- Leave your composting experiment outside in an area where sunlight reaches and watch all the changes that occur to make compost.





My Composting Experiment

[Insert a photo or drawing here]

Did you notice any changes to the materials in your container?

Can you list some items that can go into your compost bin?

Waste Audit

What you will need

- A notebook/paper
- Colouring pencils/pens



1. A waste audit can be carried out at home or in school.
2. Fill out the below checklist to create your waste audit.
3. Can you think of any ways you might be able to reduce the amount of waste found?

Question	Answer
How many bins are there?	
Do you have a compost bin?	
Do you have a recycling bin?	
Do you notice any patterns of items going in the bin?	
How often are the bins collected?	



Rainwater Harvesting

What you will need

- A milk carton (2L)
- A funnel (this can be made from cutting off the top of a plastic bottle if you don't have one)
- Markers, colouring pencils etc. to decorate your harvester



How to make your rain water harvester

- Take the labels off your milk carton and decorate as you wish.
- You might want to add markers on the bottle in ml to see how much water you have collected!
- To create a homemade funnel, cut the top off a 2 litre bottle and sit the top inside the milk carton or sit a funnel inside the milk carton (tip: the wider the funnel, the more rain you will catch).
- Place the milk carton outside, you may want to place some rocks around it to ensure it doesn't blow over.
- Overtime your milk carton will collect rain, you can then repurpose this water to water some plants, use it for art work or composting etc.





My Rainwater Harvester

[Insert a photo or drawing here]

How much water did you collect?

What did you use the collected water for?

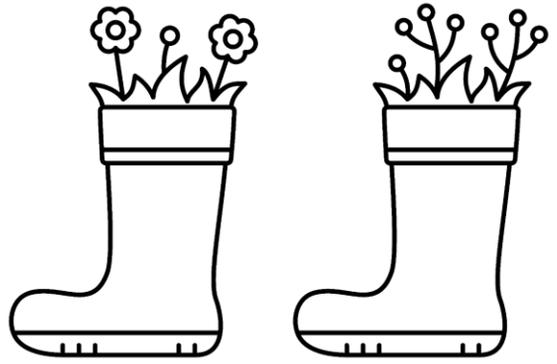
Recyclable Plant Pots

How to make your plant pot

- There are many items around the house or school going into your recycling bin which can be upcycled into a plant pot!
- Why not use an old glass jar, tin can or yogurt pot to use for some plants in your garden.
- Clean out your chosen container and with the help of an adult add some holes to the bottom.
- Once your planter is ready, add some soil and your seeds.
- Water your seeds as per their instructions and watch your plant grow!
- Why not reduce your food waste even more with your planter and plant items such as carrot tops or onion roots.



My Upcycled Plant Pot



[Insert a photo or drawing here]

Recycled Fairy House

What you will need

- A milk or juice carton
- Glue
- Scissors
- Decorations (moss, bark, leaves, flowers, string etc.)



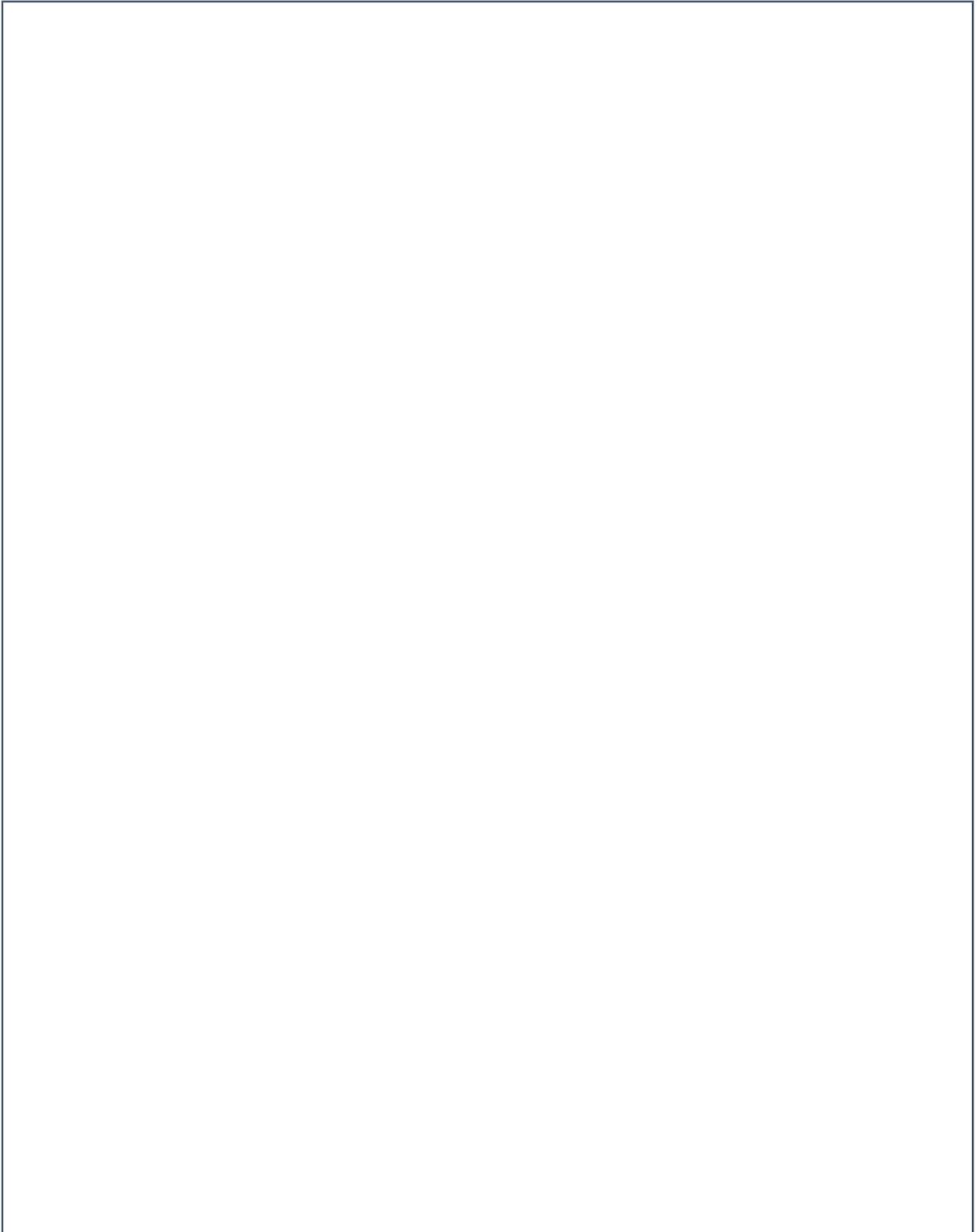
How to make your Fairy House

- To begin, decide where you would like to place your fairy house, a popular spot is beside a tree.
- With the help of an adult cut any windows or doors you would like in your milk carton, if you are choosing to hang the fairy house, you should punch a hole in the carton at this time.
- Now it's time to decorate your fairy house, use items you find in your garden such as some bark, moss, grass, flowers or perhaps you would like to decorate your fairy house with some recyclable items in your house such as old paper, lids, old buttons and more.
- Once decorated, allow the glue to dry and place your fairy house in your chosen location



My Fairy House

[Insert a photo or drawing here]



What materials did you use to decorate your fairy house/castle?



Recycled Bird House



What you will need

- Clean dry tetra pak (milk or juice cartons work well)
- String or Twine
- Items to colour your bird house e.g. pencils, moss, paper.
- Scissors
- A wooden stick for the birds to perch on (pencil, old wooden spoon, stick found outside etc.)

****Some paints can be toxic to birds. Please don't use beads, glitter, pom poms or any items that may sit loosely and a bird could ingest.**



How to make your recycled Bird House

- To begin, clean your carton and let it dry.
- Ask an adult to help you punch a hole at the top of the carton and thread the string or twine through the carton.
- With an adults help, cut a small square hole in the front of the tetra pak (consider what size of bird this is to suit when deciding the size of the cut out).
- Punch a hole below the square to thread the stick through.
- Now it's time to decorate your birdhouse.
- Once your bird house is decorated, fill it with bird feed and hang outside. Fix the carton firmly in place.



My Bird House



[Insert a photo or drawing here]

Have you seen any birds using your bird house?

Recycled Watering Can

What you will need

- Clean dry carton with a lid
- Thumbtack or pin
- Markers or Paint



How to make your recycled watering can

- To begin, clean your carton and let it dry.
- Ask an adult to help you punch some holes at the top of the carton lid.
- Now its time to decorate your watering can!
- Fill your carton with water (why not use some water collected with the rain water harvester) and attach the lid.
- Use the watering can to water the plants around your garden.



My Recycled Watering Can



[Insert a photo or drawing here]

Tin Can Wind Chimes

What you will need

- Clean tin cans
- String or yarn
- Hammer
- Nail
- Paint



How to make your tin can wind chimes

- Ensure that any sharp edges of the tin can are removed or taped over.
- To begin, decorate your tin cans how you please, you can use paint or perhaps upcycle some paper and tape it to the can.
- Once decorated, punch a hole in the bottom of the tin can (**an adult will need to do this**).
- Thread your string or yarn through the hole and tie a knot at the end, to ensure it holds in place. If you have a large hole, you may wish to tie the end of the string around an old cork to act as a secure stopper.
- Hang your tin cans to hear them chime in the wind!



My Tin Can Wind Chimes

[Insert a photo or drawing here]



CD Sun Catchers

What you will need

- Old Cd's or dvd's
- Markers, paints etc.
- String or Yarn



How to make your cd sun catchers

- CD sun catchers make a bright and colourful reflection when hanging in your garden. They also work as a great way to keep birds away from any vegetables you might have growing.
- To begin, you will need an old cd that is no longer needed (make sure that this cd is not broken and has no sharp edges).
- Decorate your cd how you wish, make sure to leave some of the reflective material showing so you have a colourful reflection!
- Thread your string or yarn through the hole in the centre
- You can now pick a spot in your garden to hang up your cd sun catcher. Make sure you place it in an area that gets lots of sun



My Sun Catcher



[Insert a photo or drawing here]

Eco Bricks

What you will need

- Plastic Bottles
- Plastic Bags, wrappers etc.
- Stick



How to make your eco bricks

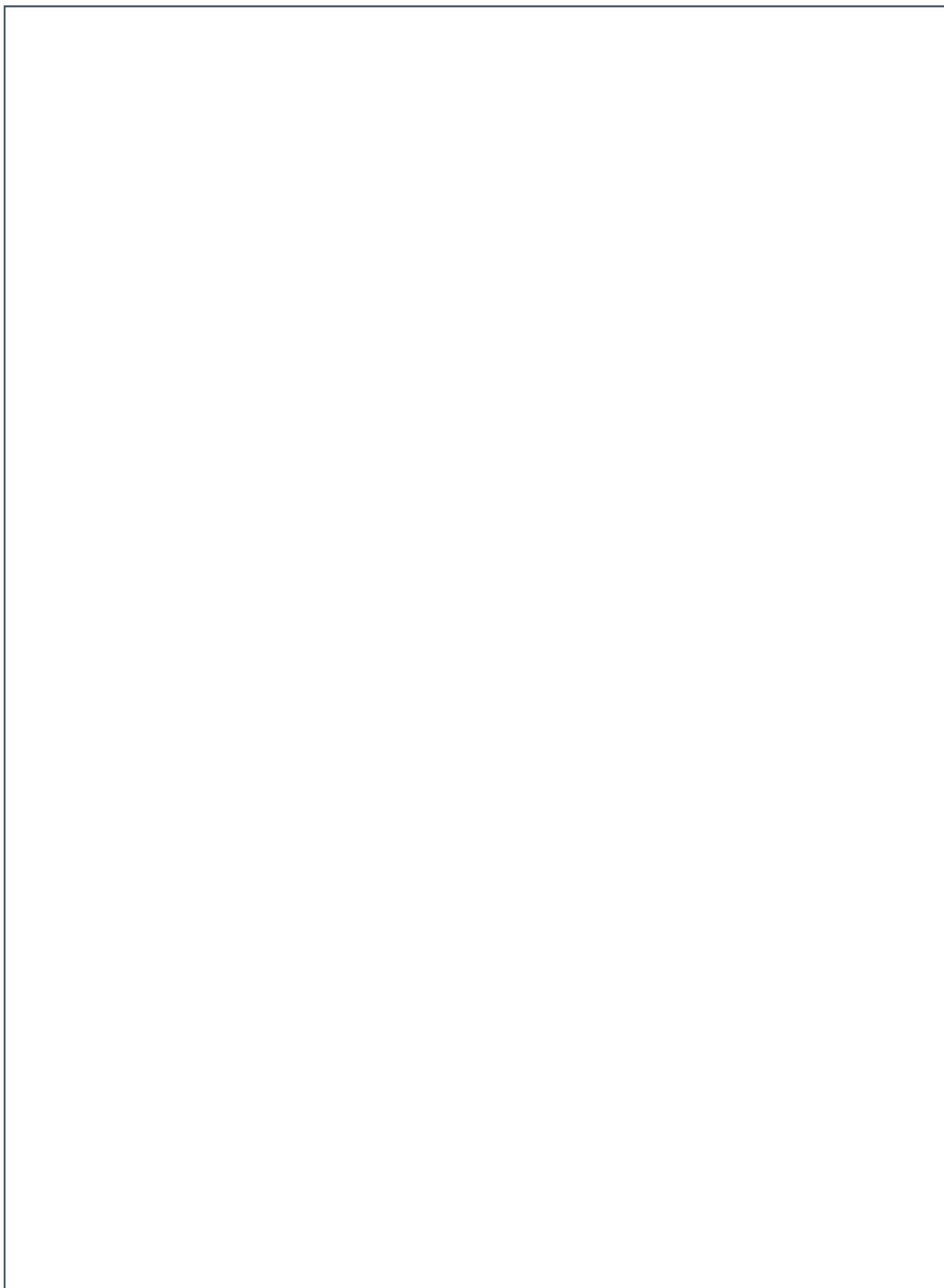
- Eco Bricks are a great way to reduce the amount of single use plastic going into your bin! They can be used to make furniture for your school garden or classroom.
- Its important to remember that Eco Bricks should only contain clean, dry soft plastics such as plastic bags, straws, wrappers or clean cling film.
- To begin, find an empty bottle that may be going to the recycling bin. Make sure this bottle is clean and dry.
- Next look for a stick that will help you squish all the plastics into the bottle.
- Once you have chosen your stick and bottle, you are ready to make your eco brick! Overtime, collect any soft clean plastics that you think can go into your eco brick.
- Using your stick, squish the plastic into your chosen bottle.
- Its important that lots of plastic is squished into the bottle to ensure your brick is sturdy. You can ask an adult to help you ensure its packed.
- Once your bottle is full, you have an eco brick!



REDUCE
REUSE
RECYCLE

My Eco Brick

[Insert a photo or drawing here]



How much did your eco brick weigh when you finished making it?

.....

Hedgehog House

What you will need

- A cardboard box
- Dry leaves
- Scissors
- Sticks and branches
- Shredded paper or straw (if available)
- Pencils- To decorate

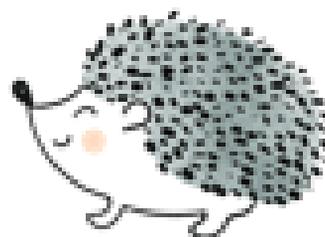


How to make your hedgehog house

- To begin you will need to find a suitable location for your hedgehog house. It should be a quiet area with no sunlight and sheltered from wind.
- Using scissors, cut open a small entryway and add some air vents.
- Decorate you hedgehog house with some colouring pencils.
- Once decorated you will need to make the bed, put inside a layer of leaves and some shredded paper or straw (if available).
- Hedgehogs like small leaves such as oak, hawthorn or birch.
- Once the bed is made, leave dead leaves, branches and twigs on top of the roof of the hedgehog house to protect it.
- You can also add a small bit of soil on top to ensure its extra sturdy.



My Hedgehog House



[Insert a photo or drawing here]



BIODIVERSITY IN THE GARDEN



Biodiversity



What is Biodiversity

Biodiversity is the variety of all life forms on earth.

Habitat

Is the place where a plant or animal naturally or normally lives and grows

Ecosystem

An ecosystem is a community of animals, plants, micro organisms and fungi that live and interact with each other in the same area.

Ecosystem Services

An ecosystem service is the different benefits that an ecosystem can provide. Some examples of ecosystem services are listed below.

- Protection from flooding
- Regulate climate change
- Pollination
- Protection from soil erosion
- Purify air
- Provide goods such as food



Habitat Mapping

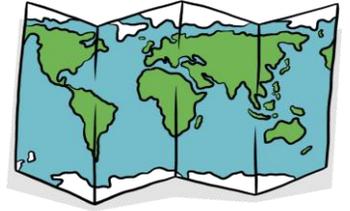
What you will need

- A notebook/paper
- Coloring pencils/pens
- A camera (optional)



- To begin, you will need to design a key (a list of symbols or colours that represent different species or habitats in your garden e.g. stars might represent flowers, blue might represent a water body, green lines might represent trees etc.)
- Draw the boundary of your garden in your notebook
- Take note of the weather, the date and the time you are making your map.
- Start by mapping features in your garden such as paths, plant pots, benches or a shed.
- Then go around your garden and look at the different habitats, these could be grass patches, wildflowers, a herb garden, flower patches or more.
- Draw the different habitats you find on your map and mark any which you think are important to monitor and why e.g. wildflower patches are good for bees and pollination!
- If you can, have a go at identifying some of the species in your garden.
- Once you are finished drawing your habitats, colour them in on your map.
- Draw your habitat map again when season change to see the changes your garden goes through.





My Habitat Map

[Insert a photo or drawing here]

Key

Wildflower Hunt

Can you find any of the following wildflowers while out on your walk? Use the relevant Wildflower guide on our website to help you identify them.

Wildflower

Guide

Explore some of the wildflowers commonly found within Dún Laoghaire-Rathdown. Can you find them all?

Created by
Niamh Moran,
Assistant
Environmental
Awareness Officer



dlr
Comhairle Contae County Council

Daisy



Dandelion



Buttercup



Gorse



Primrose

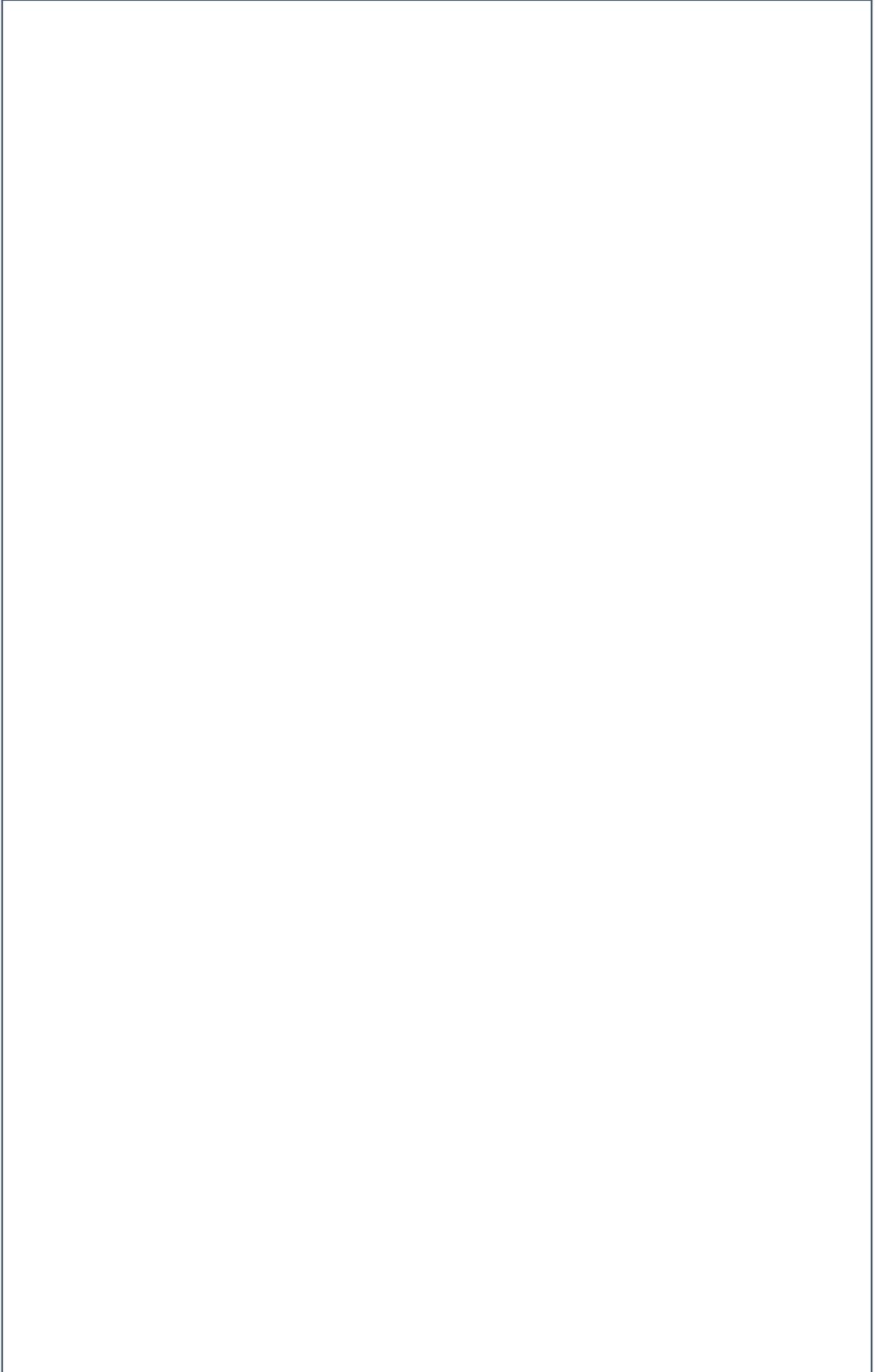


Bluebell



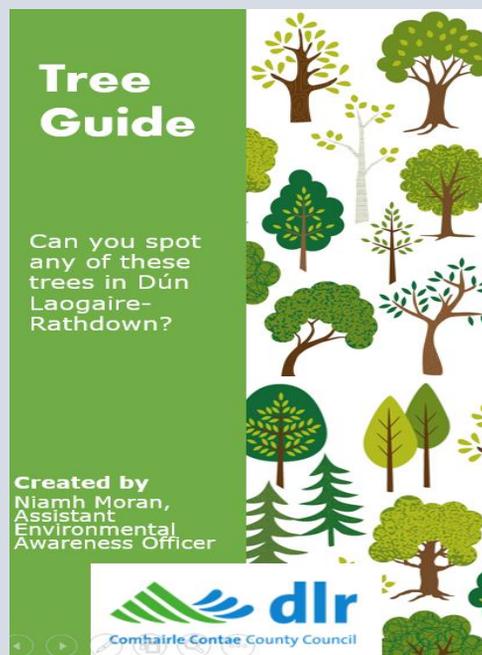
My Wildflowers

[Insert a photo or drawing here]



Tree Hunt

Can you spot any of these trees while outside? Use the relevant tree guide on our website to help you identify different leaves, bark, flowers and fruit.



Sessile Oak



Ash



Beech



Silver Birch



Crab Apple

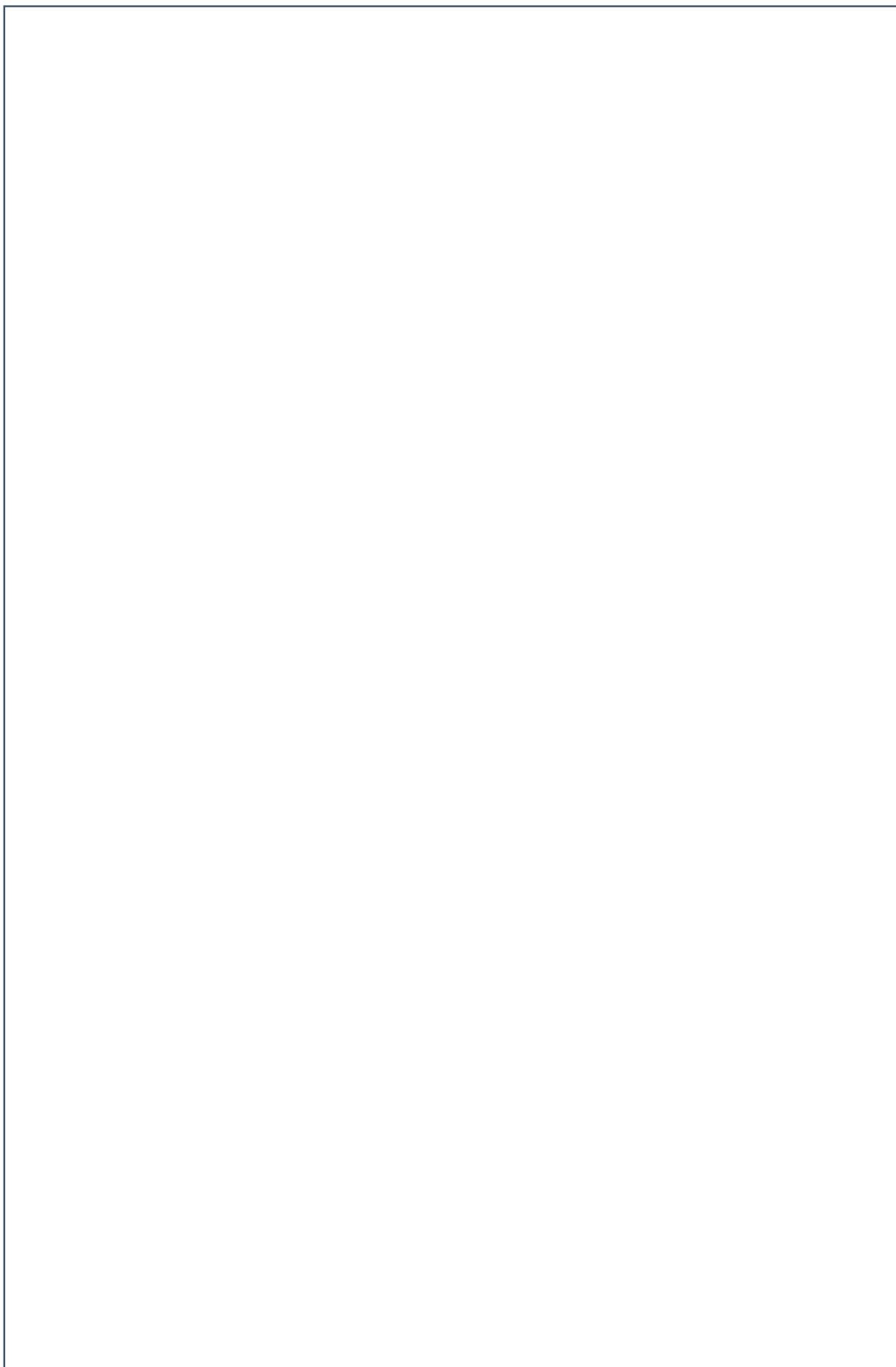


Alder



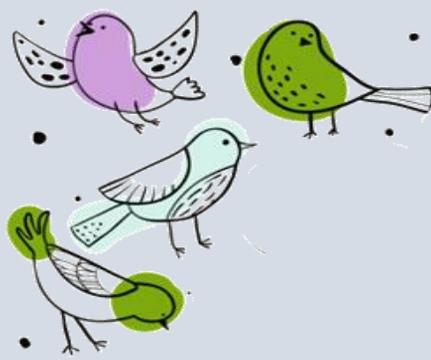
My Favourite Tree

[Insert a photo or drawing here]





Bird Bingo



Can you spot any of the below birds? Mark each box with an X as soon as you see one! Use the Garden Bird Guide on our website to help you identify any bird you are not sure of.

Robin



Blackbird



Blue Tit



Magpie



Crow



Pied Wagtail



Chaffinch



Starling



House Sparrow



Bug Hunt

Can you find any mini beasts in your garden, on your walk or in your school? Use the below top tips to help you on your bug hunt!

What you will need

- Notepad
- Pencil
- Magnifying glass (optional)



Top Tips for finding mini beasts!

- Peek under logs and large stones
- Look in the cracks of tree bark
- After rain its easier to find some slugs, snails and worms
- Look closely at leaves
- Lots of mini beasts live in shrubs and trees. Why not try laying a piece of paper or white cloth under a bush and gently shake the plant. Can you see any mini beasts landing on the sheet?
- Always remember to put your mini beasts back after examining them!



My Bug Hunt Checklist

Worm



Spider



Ladybird



Slug



Snail



Butterfly



Where did you find mini beasts??

How do seeds travel?

Seeds travel around in different ways. These include:

1. Water
2. Wind
3. Sticking
4. Deposited



Sticking

Have you ever come home from a walk in the park and noticed some seeds stuck to your shoes or jumper? These are sticking seeds! Some seeds are sticky and stick to different surfaces so that they can travel. These seeds will eventually fall and grow in a new location.



Water

Some plants that live near or in water produce seeds that are light and can float. An example of a seed that can float is a coconut. A coconut seed is picked up by the sea and floats until it is transported to a new beach. It will then grow into a coconut palm tree on the new beach!

Wind

Some seeds have wings or parachutes. These are part of this seed to slow down their fall as they fall from the mother plant. Often the seeds are carried away by the wind. An example of this type of seed is a dandelion or a helicopter seed. If you find any helicopter seeds, why not try racing them to see which one travels furthest?



Deposited

Some seeds require some help from animals to help them travel. Often animals such as small birds, e.g. robins, eats the seeds. These seeds are then later deposited (as bird poop) to help them start growing.



Make a Mini Greenhouse

What you will need

- Plastic Cups (are there any in your recycling that you can use?). You will need 2 types of plastic cups, 1. A cup to hold the soil, 2. A cup to sit on top of the bottom cup. Tip: A clear cup will allow you to watch your plants grow!
- Soil
- Thumbtack or pin
- Seeds
- Water



How to make your mini greenhouse

- Using the cup that is going to hold your soil, ask an adult to help you poke several holes in the bottom of the cup. These holes are used to drain excess water.
- Fill the cup with soil and pat down gently, add your seeds (normally 3-5 seed per cup) and cover with the remaining soil until your cup is almost full.
- Water your seeds and place the clear plastic cup on top.
- By placing the clear plastic cup on top, moisture will be locked in and your seeds should sprout faster.
- Place your mini green house on a plate or tray and leave on a window sill or an area that sunlight reaches and water every 1-2 days. Soon you should see your seeds grow!



My Mini Greenhouse

[Insert a photo or drawing here]



How long did it take for your seeds to sprout?

Leaf Collage

What you will need

- Paper
- Glue
- Pencil
- Materials from outside such as twigs, bark, grass, leaves or flowers



How to make your leaf collage

- To begin your leaf collage, draw the template of your drawing.
- Go outside and collect your art supplies, this can be leaves, bark, twigs, moss or anything you wish to add to your collage.
- Once your materials are collected, glue them to your picture filling in the template.
- Let the glue dry and your picture will be complete!



My Leaf Collage



[Insert a photo or drawing here]

Bug Hotels



What you will need

**You will need a mix of any of the below materials

- Wooden pallets
- Tin cans
- Broken tiles or bricks
- Stone chippings
- Cardboard
- Dry leaves
- Bark
- Straw or hay
- Rotting wood
- Logs or twigs
- Broken plant pots
- Old drain pipes
- Plastic bottles
- Bamboo or hollow plant stems

How to make your insect hotel

- To make your hotel you first need to select its location, as we learnt earlier, mini beasts prefer an area that is cooler so a shady area will work well e.g. under a tree.
- You will need to create the structure; any material you have that can create a structure with some gaps will work well (pro tip, you can make mini bug hotel structures using tin cans).
- Fill in the gaps of your structure with the materials you gathered such as bark, drainpipes, leaves, stone and tiles etc.
- Once you have filled in the gaps, make sure your structure is stable and if needs be, stabilise it with some rope or ties.



My Bug Hotel



[Insert a photo or drawing here]

Have you seen mini beasts using your hotel?

Bark and Leaf Tracing

What you will need

- Notebook
- Crayons or Chalk
- Paper
- Trees
- Leaves



Leaf Tracing

- Pick out some interesting leaves, and lay them flat on a table.
- Cover your chosen leaves with paper, and rub the side of the crayon or chalk on the paper.
- The pattern of your chosen leaves should start to show up on your piece of paper

Bark Tracing

- Press a sheet of thin paper up against the bark of a tree you wish to trace.
- Carefully rub the side of your crayon or chalk on the paper until the pattern of the bark shows





My Leaf Tracing

[Insert a photo or drawing here]



My Bark Tracing

[Insert a photo or drawing here]

Can you see any difference between the barks of different trees?

**Find Out
More**



Dún Laoghaire- Rathdown Environmental Awareness

Learn about Dún Laoghaire- Rathdown's Environmental Awareness projects further information can be found here:

<https://www.dlrcoco.ie/en/environment/environmental-awareness-education>

Dún Laoghaire- Rathdown Biodiversity

Learn about Dún Laoghaire- Rathdown's Biodiversity by visiting our Biodiversity page. This can be found here:

<https://www.dlrcoco.ie/en/heritage/biodiversity>

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