

# garden detectives

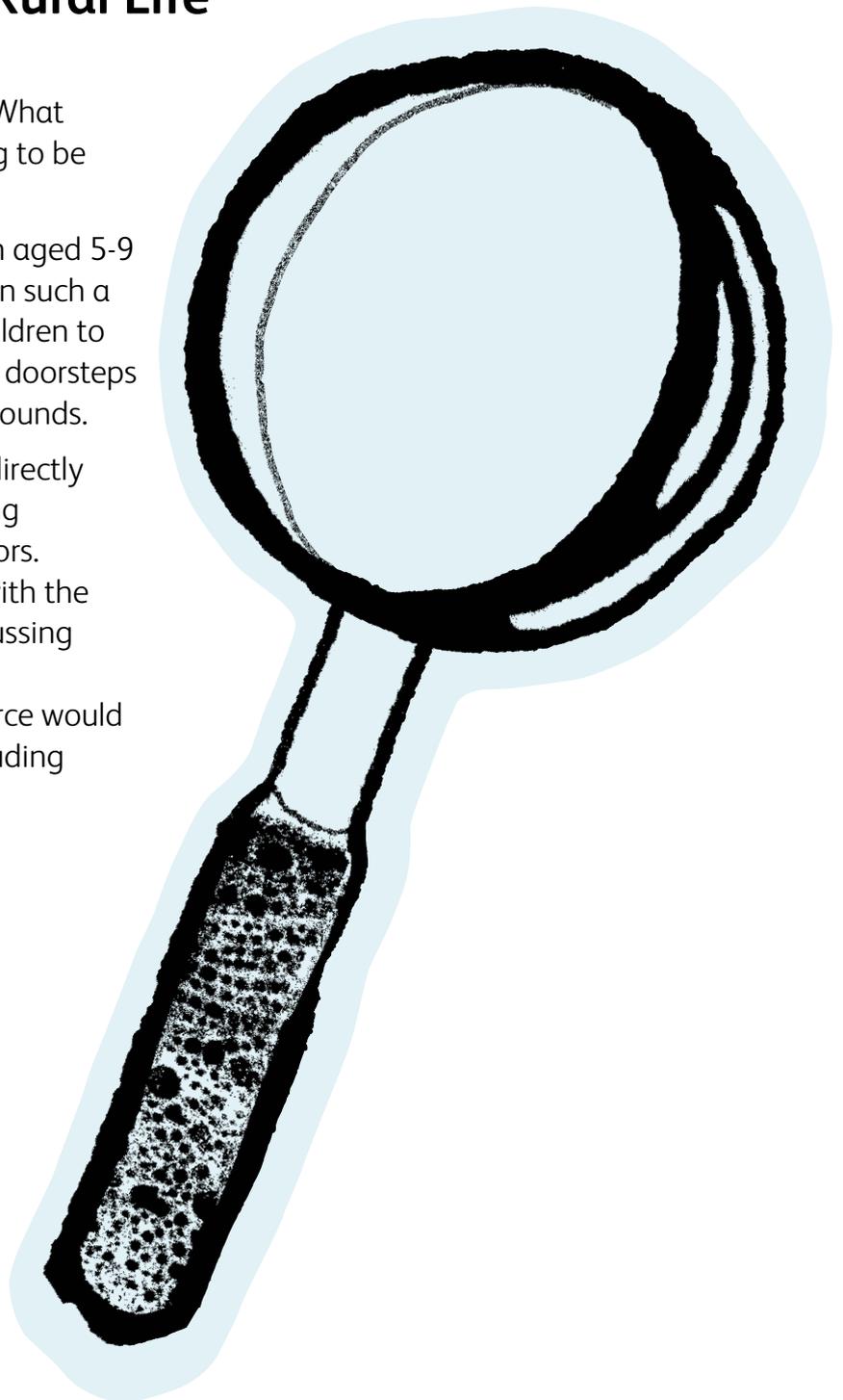
## National Museum of Rural Life

### Teachers' Resource Pack

Who do you share your garden with? What sorts of plants and animals are waiting to be discovered outside your back door?

Garden Detectives is aimed at children aged 5-9 (Primary 1-4) and has been designed in such a way that we hope it will encourage children to explore the green spaces on their own doorsteps including gardens, parks and school grounds.

This resource pack is intended to link directly with the exhibition whilst also providing activities for the classroom and outdoors. These activities have been designed with the Curriculum for Excellence in mind, focussing especially on Science: Biodiversity and Interdependence. However, this resource would work well in a cross curricular way including elements of maths, art and drama.



National  
Museum of Rural Life  
Scotland



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### Suggested Activities

#### Drawing

One of the best ways to introduce children to the idea of recording what they find in the natural world, is to simply get them to draw it. Why not bring drawing materials along to the exhibition and get them to look for the following animals and sketch them:

- Blackbird
- Otter
- Frog
- Hedgehog
- Earwigs
- Stoat
- Fox

#### Fly, hop, wriggle, run or swim

Ask the children to find the following creatures in the exhibition and decide whether they think they fly, hop, wriggle, run or swim. With a bit of luck, some children may realise that certain creatures can do more than one of these actions:

- Otter
- Worms
- Tadpole
- Dragonfly
- Frog
- Minnow
- Water Vole

#### Nature table

If you intend to carry out the nature table activity detailed later in this pack, the exhibition is a good place to start. Any drawings the children make or poems and stories they compose could be added to the table. The animal track rubbing activity at the pond could provide excellent images for your table or a collage.

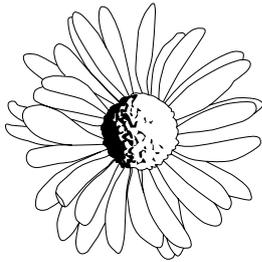
#### Leg Count

The number of legs an animal has is an easy way for children to distinguish them. Try a leg count game – using the creatures listed above – and get the children to note how many each animal has next to their sketches.

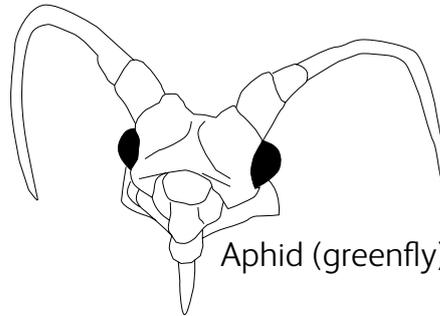
### Masked game – ‘What’s eating you?’

Photocopy the mask templates on the following pages. There are five different designs.

#### Players



Flower



Aphid (greenfly)



Spider



Sparrowhawk

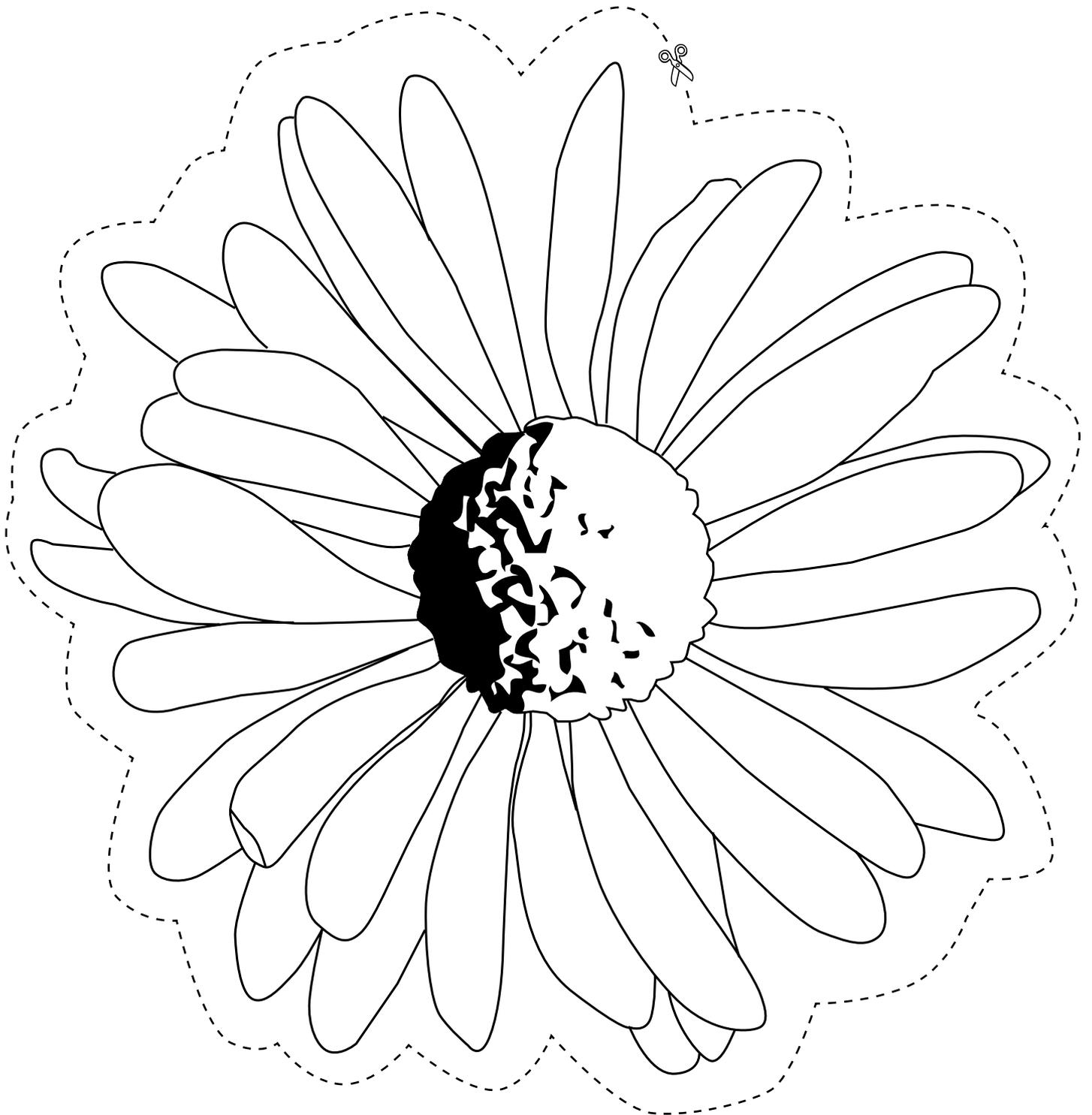


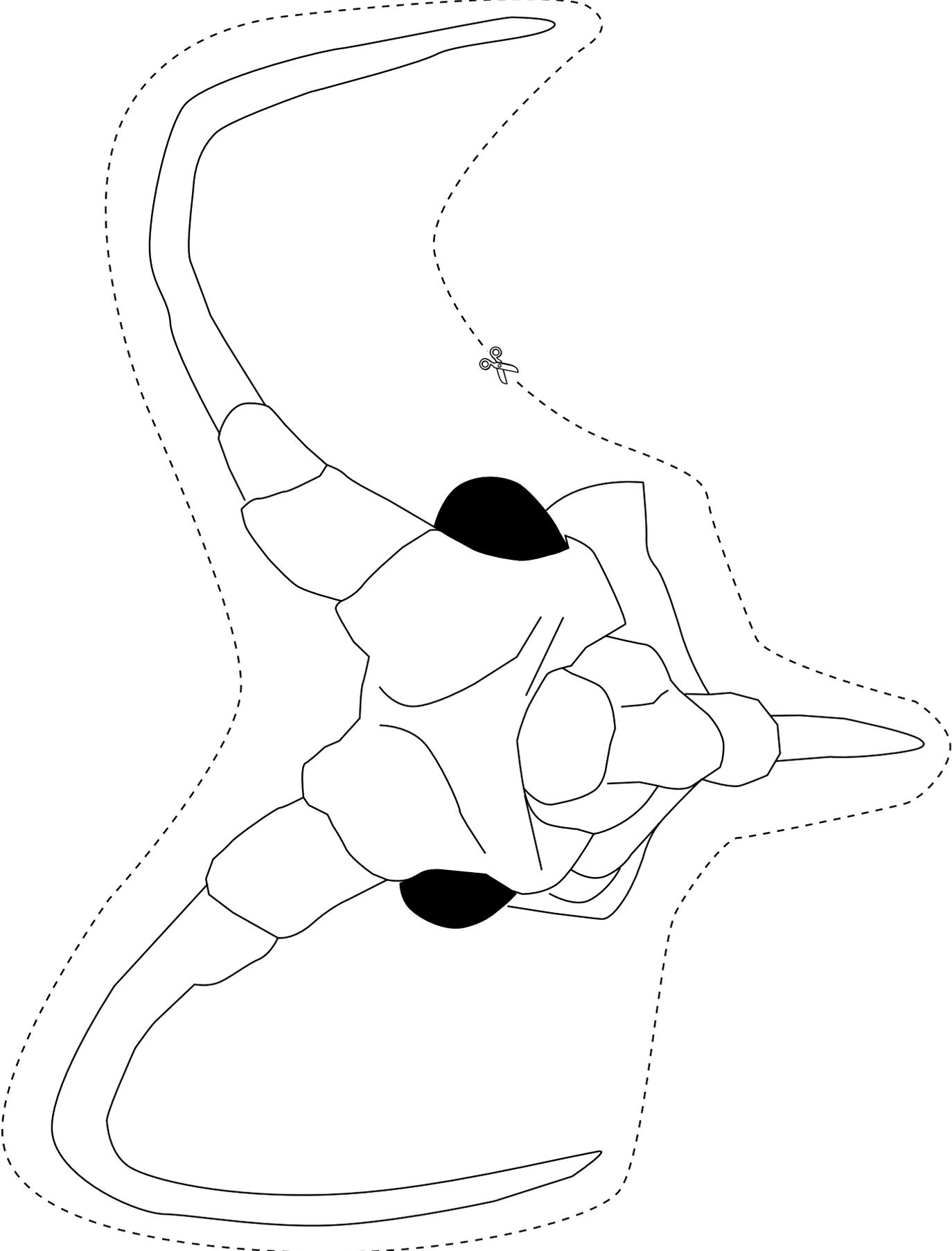
Thrush

N.B. This activity works well after children have tried our ‘Food for Thought’ interactive in the Garden Detectives exhibition (it features the same animals).

This activity ties strongly into the Curriculum for Excellence – Science

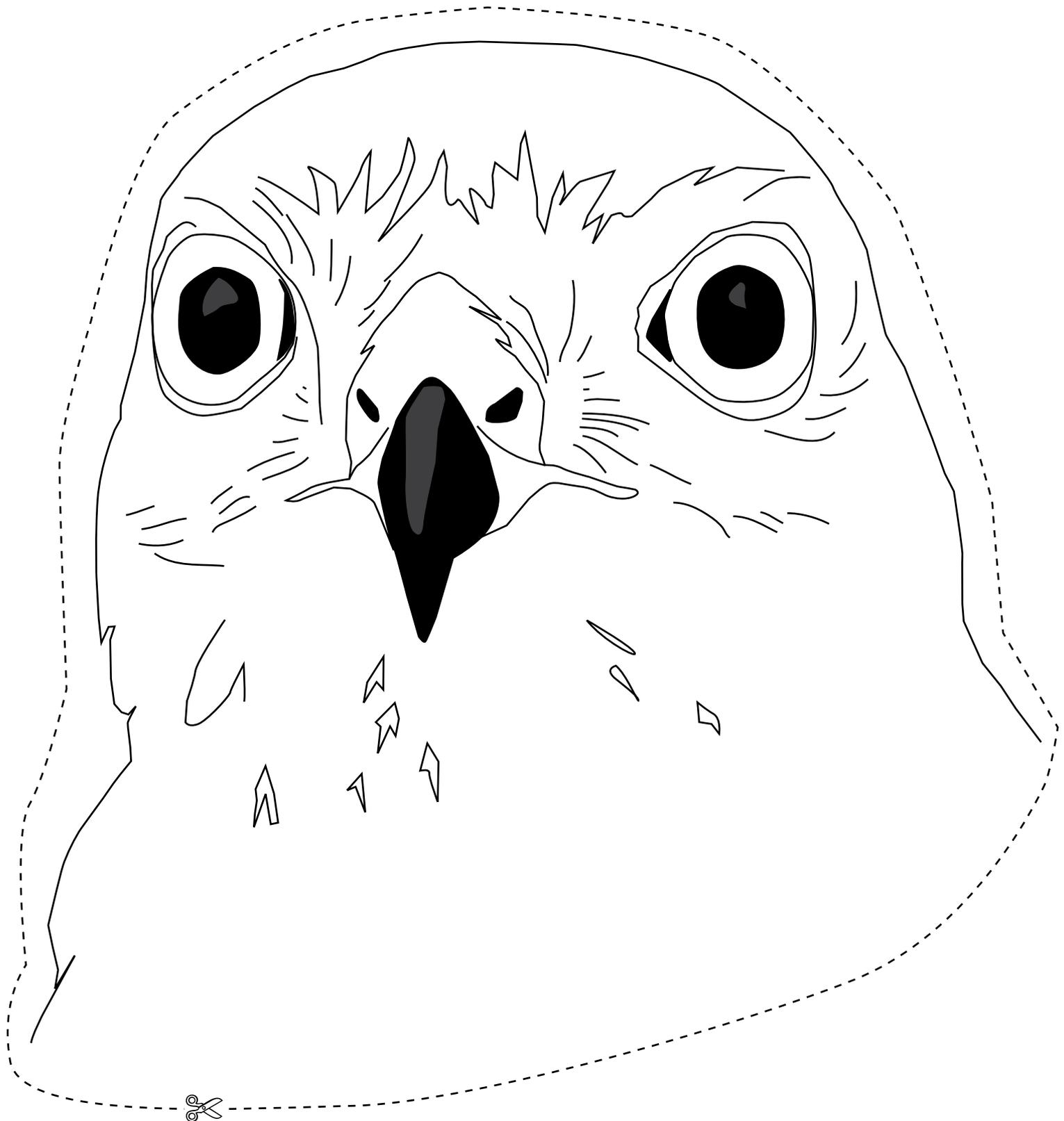
- 1 Make the masks part of the fun, the children can colour them in prior to playing.
- 2 A game for five players. Divide your class into the five groups above.
- 3 Get the groups to act out a food chain wherein the flower that grows is eaten by the aphid which is eaten by spider and so on. All being well, only the sparrowhawks should be remaining. .
- 4 The game should be both fun and funny. Encourage dramatic input; lots of animal noises and actions e.g flowers sway, aphids crawl, Spiders crawl and pounces and the birds fly etc. This is essentially a ‘tag’ game. When an organism is eaten (tagged) the have to sit out.
- 5 Get the groups to swap masks and play as often as it takes for them all to have a turn at each animal











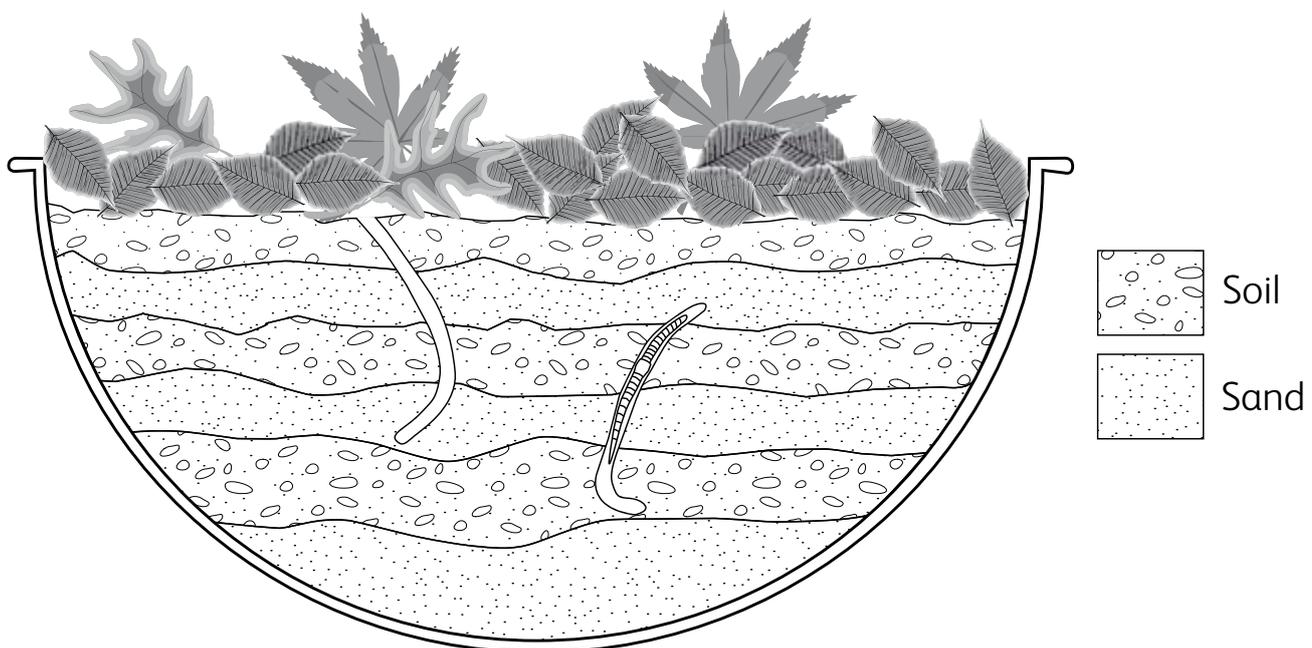
### Little Wrigglers – Classroom wormery

#### Look out for

**Worms** - Earthworms are vital to the health of our soil. They eat decaying plant materials and pass it through their bodies as they move through the soil. This adds nutrients to the soil. Their tunnels help the soil breathe and allow rainwater to drain away.

#### Building a class wormery

- Collect some worms. This can be done by pouring water onto a lawn through a watering can. The worms think its raining and come to the surface. Or, stick a garden fork into the grass and wiggle it, this sometimes works. Alternatively, get digging!
- Fill a large mixing bowl with alternate layers of soil and sand (make the layers about 2.5cm thick)
- Put a layer of leaves on top (these are vital as food for your worms)
- Add enough water to make the soil damp but be careful not to add too much; you don't want your worms to drown or flee!
- Keep your wormery somewhere cool and dark. Its makes sense to keep it under a cloth, worms don't like bright light; it can make them inactive.
- Check every day – you'll see tunnels appearing as the worms eat through the soils. The layers of sand and soil will start to mix and the leaves will be pulled into the tunnels.
- Once your project is complete, return your worms to where you collected them.



### Nature Table

A nature table / area is an attractive addition to a class room and a great mechanism for introducing children to the natural world by getting them to focus on the everyday aspects they can see on their doorstep. It's also a great way to attune children to the rhythms of the seasons.

Why not organise your nature table on a seasonal basis. It helps to give your pupils a few pointers. Here are a few tips



#### Spring

Spring flowers – familiar ones like daisies, dandelions and daffs. Get the landowners permission! Green shoots too, only pick a few. The discarded shells from eggs can sometimes be found at this time of year. Keep a record of when the first swallows, swifts and house martins arrive. Get your pupils to draw these and add their drawings to the table.



#### Summer

Collect green leaves from trees (again just a few – don't go mad) Encourage pupils to look out for fledged chicks, butterflies and flying insects such as crane flies (daddy long-legs) and bumble bees and draw them.



#### Autumn

a great time for collecting! Not only the shed leaves of trees but also nuts – conkers, beech mast, acorns. Make a note of when the swallows and other summer visitors depart. Watch out for seeds too – samaras (helicopters) from sycamores and bunches of keys on ash trees can be found during autumn. Berries such as hawthorn and rose hips can be found. **Beware of poisonous varieties and impress upon children the dangers of eating anything they find.**



#### Winter

Less to find, but make notes of the first frosts and add these to the table – look out for conifers and add sprigs of greenery to tables – pine and fir twigs, holly and ivy (careful when picking, these can be prickly)



#### All Year

Why not take bark rubbing with wax crayons from different trees and compare textures. Look out for feathers and try to identify the birds (little piles of feathers may indicate a kill by a sparrowhawk) Owl pellets and bones can also be found throughout the year. If you have made a wormery, add this to the table.

#### Photography

Using a digital camera and printer take pictures of a particular landscape and add these to seasonal tables / calendars.



#### Collage

If you haven't got space for a table, make seasonal collages with the objects found. Add photos, poems drawings – anything that reflects the natural order of the seasons.

### Bug Safari

Looking at Invertebrates (bugs) is a great way for children to get close to some fascinating wild creatures.

#### Where to find bugs

Get children to look under logs and stones, old sheets of corrugated iron or on the trunks of old trees. These are all great places to find insects, spiders, woodlice, centipedes, slugs and snails. Ensure that the children replace any objects they have turned over in their hunt.

#### Closer study

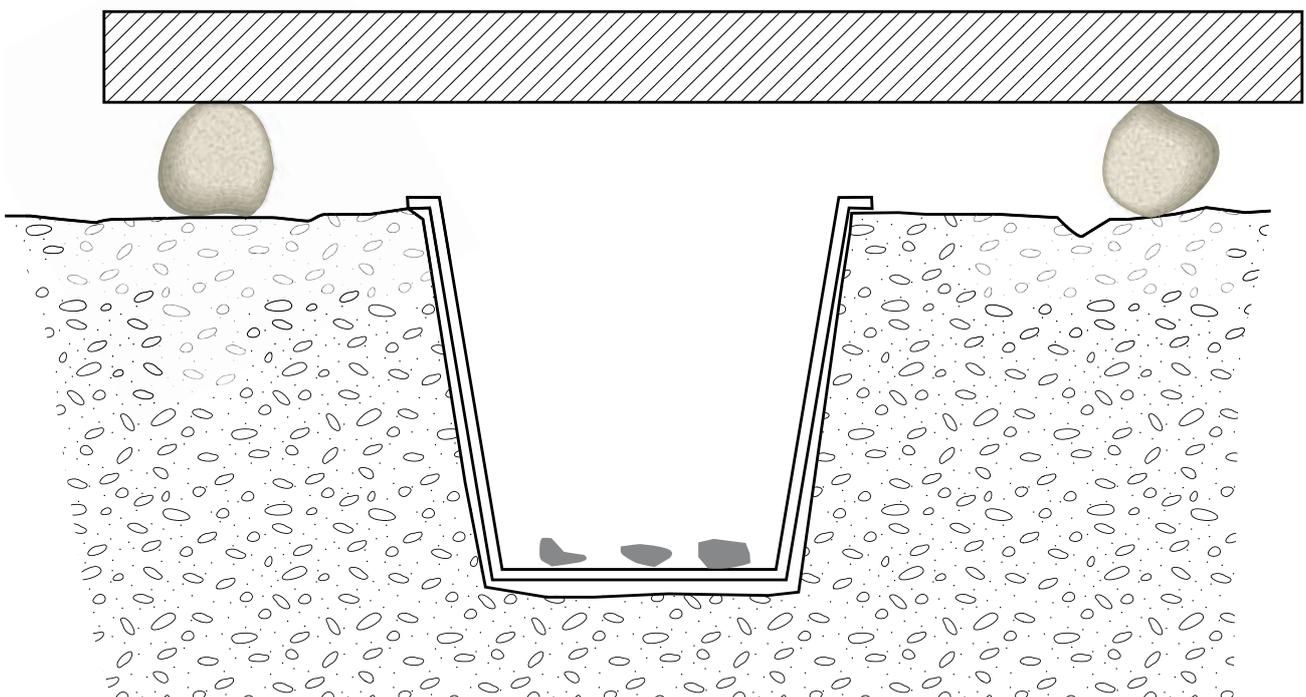
In order to study the creatures for longer, place them in a glass jar with muslin fixed over the top using a rubber band. Remember to set them free afterwards.

#### Night Crawlers

Daytime bugs are easy to find but many are nocturnal creatures. Try cutting a grapefruit in two, scooping out the flesh and then placing the halves face down outdoors overnight. Check the halves in the morning to see if anything has dropped by to feed.

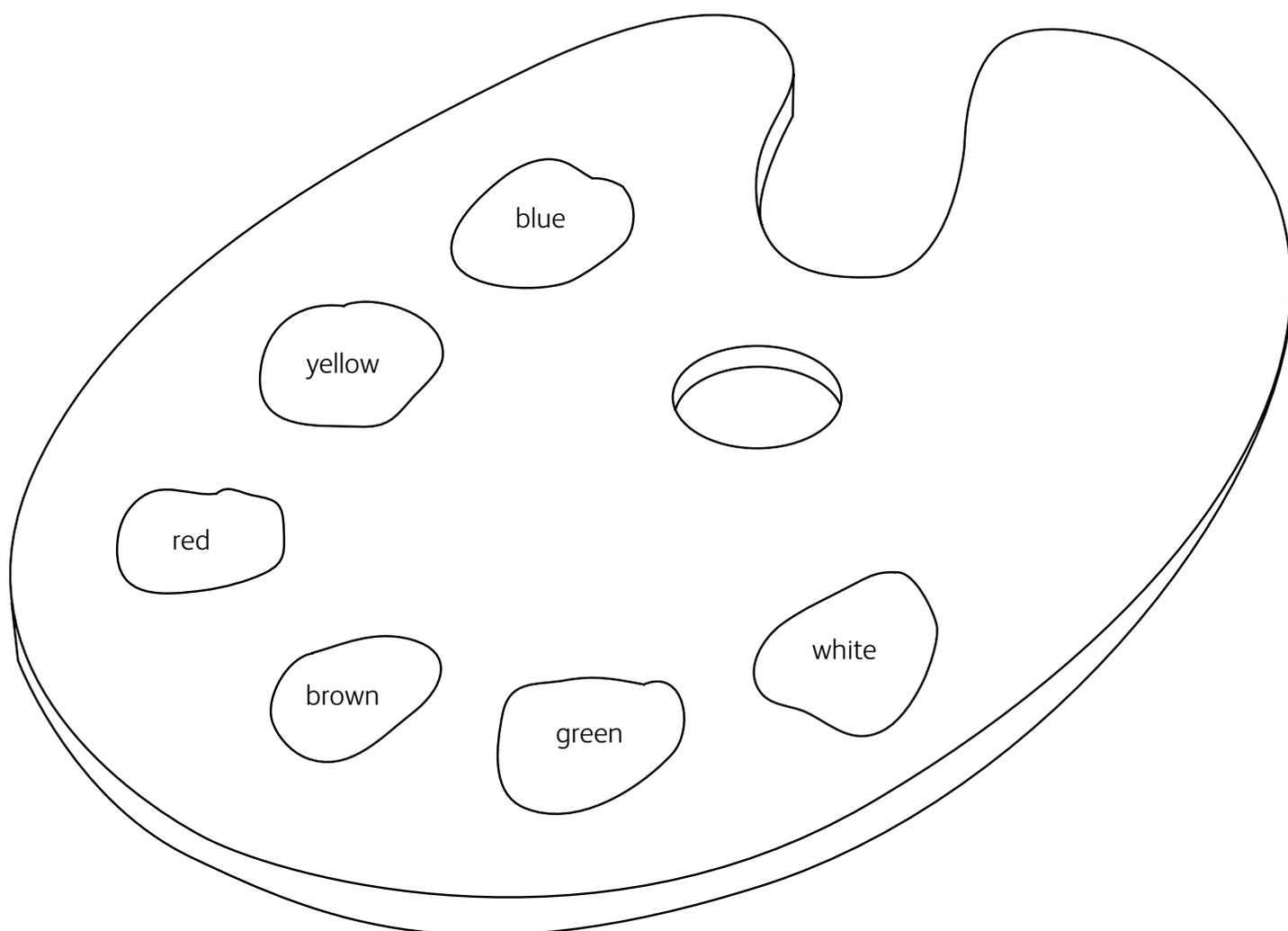
#### Pitfall traps

A great way to catch live bugs is to make a simple pitfall trap. Dig a small hole, drop in a yoghurt pot and drop in a small piece of cheese or some biscuit crumbs. Balance a small sheet of wood over the trap on some pebbles; this protects any captured beasties should it rain. This is a great method for capturing bugs to place in your jam jar observatories.



### Nature's palette

Collect different coloured objects from the natural world and stick them onto your artist's palette.



### Look out for

This activity can be carried out seasonally and works well with the nature table or collage activities. Find small natural objects and stick them onto the appropriate colour circle using double sided tape or glue. Photocopy a palette for each child and place on a clipboard.