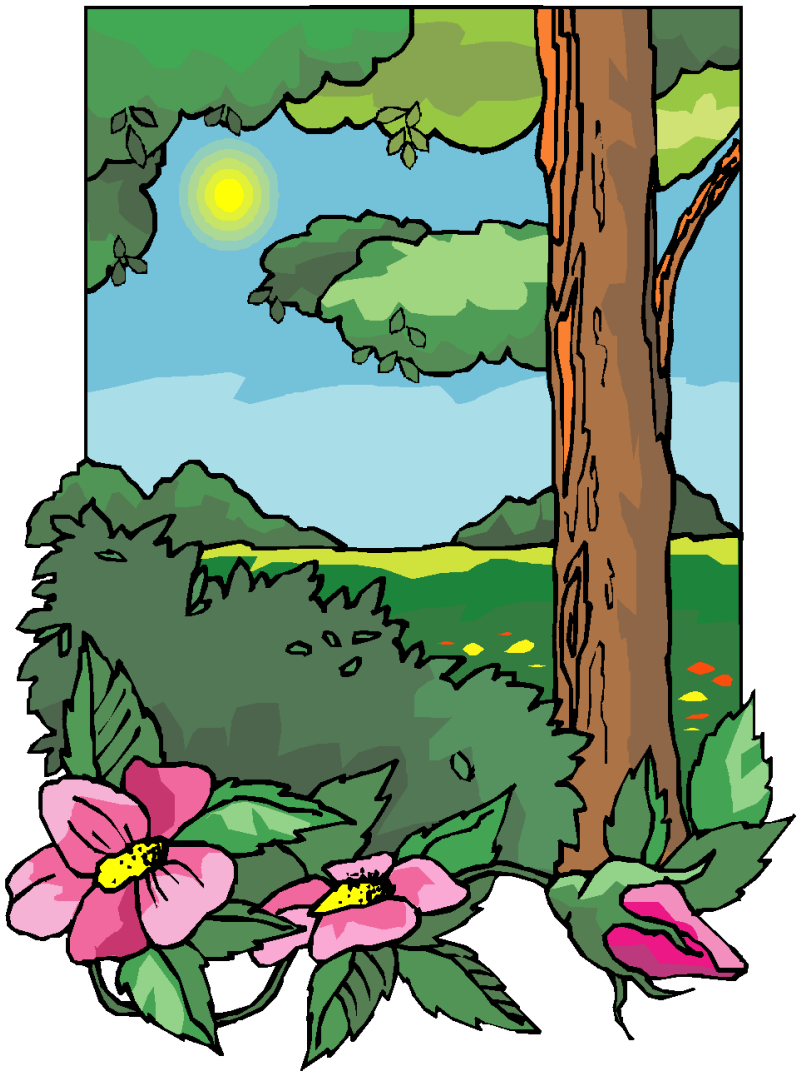
Habitats

A Wildwood KS2 Teachers' Pack and Activity Sheets



Teachers' Guidance Notes

This teachers' resource pack is designed to support the National Curriculum KS2 topic of animal homes and habitats (see also separate pack on Animal Homes). It is based on British wildlife with an emphasis on woodland and can be used on its own or in conjunction with a visit to Wildwood Trust.

The first part of the resource pack is information for teachers to introduce the topic of habitats; some sheets may also be used as a literary resource for older children to find out information. The second part features seven classroom science activity sheets. There are also ideas and instructions for a range of art and craft activities (all with a woodland theme) and two literacy sheets for writing and decorating a tree poem.

Wildwood is a centre of excellence for British wildlife and stands on the edge of the Blean, one of the largest tracts of ancient woodland in southern England. Our animals are housed in natural woodland enclosures, so you can see:

- otters splashing about in their pond
- wolves and deer roaming their woodland enclosures
- harvest mice climbing about among cornstalks
- wild grey squirrels scampering out of your way as you walk around the woodland paths
- wood ants following their trails over the woodland floor
- marsh frogs and pond tortoises in their pond or sitting amongst the aquatic plants

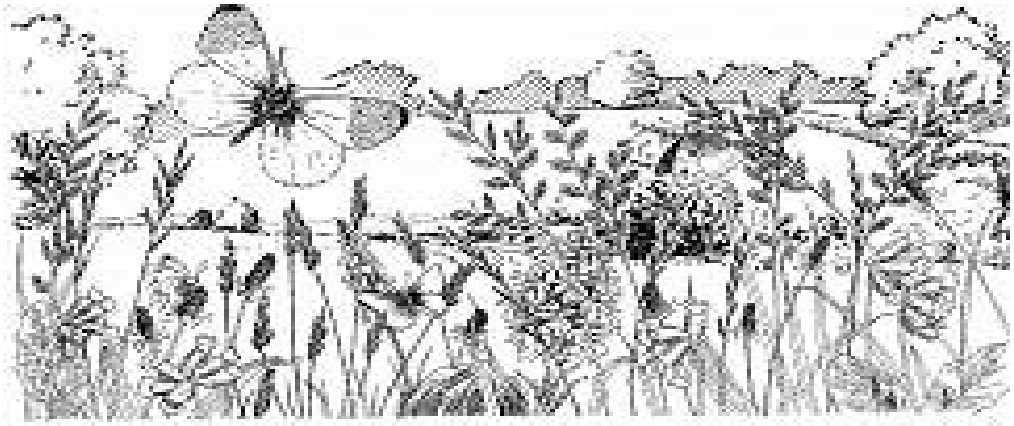
Our education department offers children studying habitats:

1. A guided tour of the woodland, noting the different habitats, both large and small, within the woods.

2. An interactive workshop in the education centre including role play, handling artefacts from different habitats and the option of making a craft to take home.

3. An interactive workshop in the woods, hunting for minibeasts to explore how invertebrates have adapted to use different habitats on the woodland floor or up in the branches.

If you are interested in more details, please refer to the Education section of our website, www.wildwoodtrust.org.



orange tip and other butterflies in wild flower meadow

Habitats

What is a habitat?

A **habitat** is the place where an animal or plant lives. Use Activity Sheet 1 to check childrens understanding of what plants and animals are. Keys are often used to help identify unfamiliar plants and animals - see Activity Sheet 4.
Different plants and animals live in different habitats. For example, an arctic fox's habitat would be arctic tundra, a red squirrel's habitat would be woodland and a bulrush's habitat would be wetlands. See Activity Sheet 2 for work on different habitats.

Extra fact:
A habitat can also be described as the place where an organism lives. An organism is any living thing, plant or animal.

Animals and plants are **adapted** to the habitats in which they live. Most animals are only adapted to live in one or two habitats. An otter could not live in a desert. An adder could not live for very long in the arctic.

Extra fact:
Certain animals, such as red foxes, are very adaptable. This is mainly because they are not fussy eaters and have learned to live near humans. Red foxes can be found living in woodland, field/farmland and even urban habitats.

What makes a good habitat?

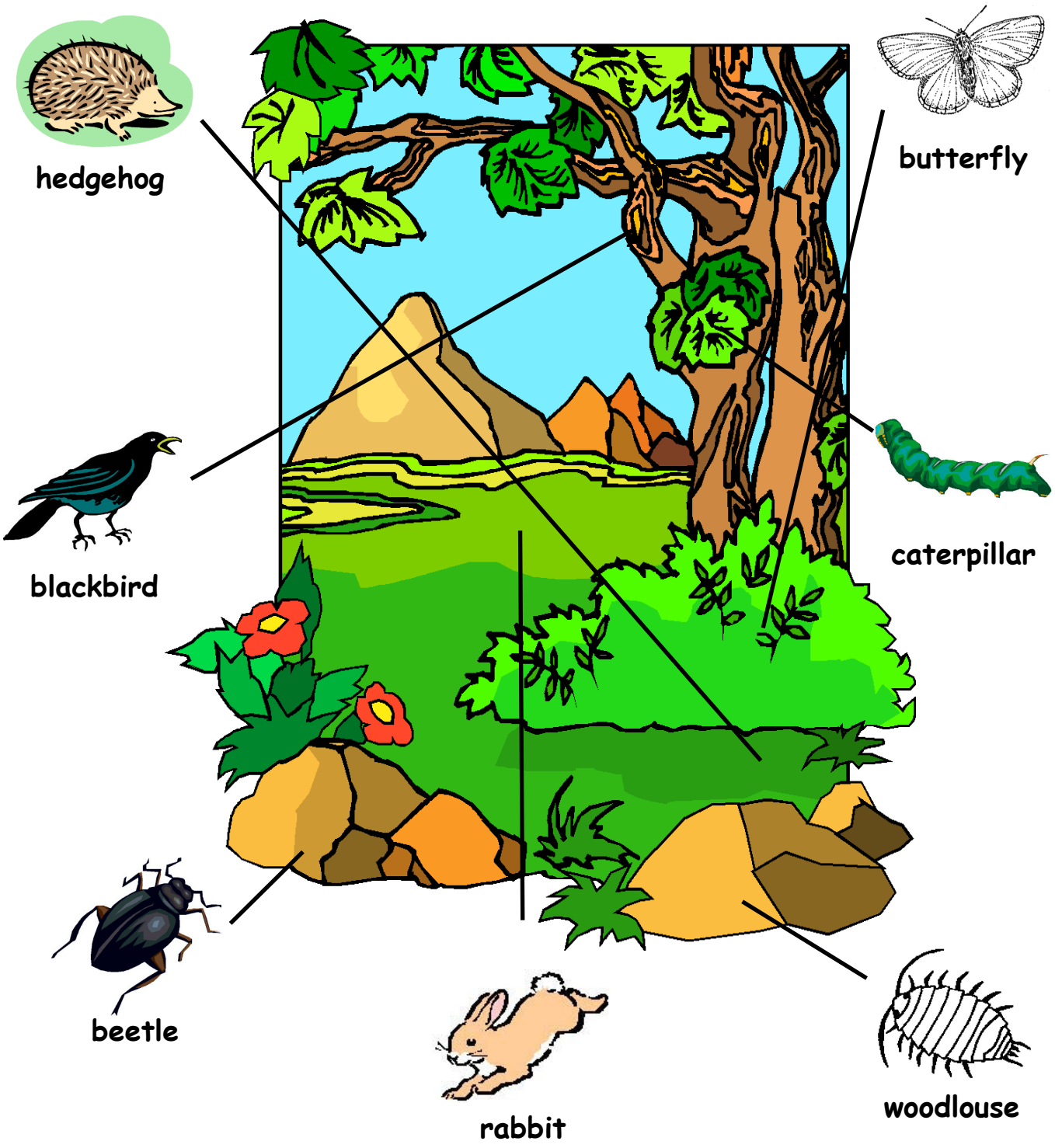
All living things need food, water and shelter to survive. A good habitat will provide all these things. The reason a desert is such a poor habitat for an otter is because it does not provide the sort of food an otter needs, or enough water, or the right kind of shelter. A riverbank is an ideal habitat for an otter because there will be plenty of fish, young waterbirds and frogs, all of which the otter will eat. There will also be plenty of water and natural holes in the bank while plants and shrubs near the water's edge will all provide shelter.

How big is a habitat?

Habitats come in all sizes. They can be as large as a forest or an ocean or as small as a leaf. See Activity Sheet 3 and help sheet overleaf on page 3. In general, larger animals live in larger habitats. A big animal will eat more food and drink more water than a small one and may have to roam over a larger area to find it. It will also need more shelter - a deer cannot hide under a leaf!

cinnabar moth caterpillar on ragwort

Help Sheet for Activity Sheet 3 - How Many Habitats?



There are lots of different habitats in this picture; mountains, the field, the tree, the bush, a single plant, a leaf, the rocky ground and under the rocks.
The small animals have small habitats (woodlouse and beetle - under rocks, caterpillar - a leaf, butterfly - a plant or bush) and the larger animals have larger habitats (rabbit and hedgehog - the field, blackbird - tree).

Habitats in Britain

There is a wide variety of habitats in Britain, ranging in size from large ones such as woodland, farmland and the seashore to the very small such a leaf, a crack in a stone wall or the underside of a rock. For example:

Habitat	Home to:
woodland	deer, foxes, badgers, woodmice, wood ants
seashore	seagulls, crabs, seaweed, limpets, fish
river	otters, water voles, fish, reeds, ducks
field	butterflies, harvest mice, grass, flowers
tree	owls, dormice, moss, red squirrel
pond	frogs, dragonflies, pondweed, irises
leaf	caterpillars, aphids
underneath a log	woodlice, beetles, slugs, centipedes

Woodland

Woodland is a habitat made of lots of trees, growing close together. It is the habitat for plants which are usually adapted to grow in the shade. Woods are also the habitat for many kinds of animals. These might be animals who make their homes in trees, on the ground amongst the undergrowth, in the leaf litter on the woodland floor or even under the ground.

short-eared owl and magpie

Seashore

The seaside is a habitat where land meets water, with lots of damp sand, shallow water and rocky areas, including rock pools. It is the habitat for plants which are adapted to salt water and the animals which feed on these saltwater plants.

reed warbler on reeds

Riverbank

A riverbank is also a habitat where land meets water but will be the habitat for a completely different range of plants and animals to the seashore because the water is fresh and not salty. A riverbank is the habitat for plants which are adapted to grow in wet soil and is also the habitat for animals which feed on those plants or on animals found in the river, such as fish.

Field

A field is a large open space with few trees and lots of grass. It will be the habitat for plants which are adapted for growing in plenty of light. It will also be the habitat for a wide range of animals which may live among the plants or burrow into the ground beneath them.

common blue and gatekeeper butterflies on wild flowers

Tree

A tree can be a habitat in itself and also includes several smaller habitats such as the bark. A tree can be a habitat for small plants such as mosses and lichens. It will also be the habitat for small animals such as minibeasts and larger animals such as squirrels, dormice and tawny owls.

dragonfly on yellow iris

Pond

A pond is a small body of freshwater that does not move. It will be home to various water plants and plants growing on the banks of the pond which are adapted to growing in wet soil. It will also be the habitat for animals which are adapted to either live in the pond itself or on its banks. These are likely to be smaller animals than would be found in a river habitat. For example, a pond could be the habitat for a frog but not for an otter.

Underneath a log

There will not be any green plants growing underneath a log due to the lack of light. However, it will be the habitat for many minibeasts which feed on the rotting wood and other minibeasts which prey on them.

Leaf

A leaf will be the habitat for minibeasts such as aphids and caterpillars.

A Closer Look - Woodland

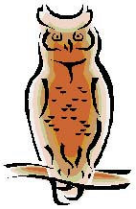
Woodland is the habitat for shade-loving plants such as bluebells and bramble. Where plenty of light reaches ground level, there will be much more undergrowth and a wider variety of plants such as bracken, honeysuckle, wood sage and stinging nettles. As there are so many plants for them to feed on, many different plant-eating animals live in the woods. This in turn means that there will be many meat-eating animals which prey on the plant-eaters. All of these might be animals who make their homes in trees, on the ground amongst the undergrowth, in the leaf litter or even under the ground. Typical woodland animals include tawny owls and red squirrels living in the trees, red deer and wolves living among the trees and undergrowth, badgers making their setts underground and wood ants, slugs and woodlice living in the leaf litter.

tawny owl

Food Chains

This is a food chain:





wheat ⟶ mouse ⟶ owl

The arrows mean **is eaten by**. The wheat is eaten by the mouse. The mouse is eaten by the owl.

All food chains begin with a green plant. Plants **produce** their own food using energy from sunlight. They are called **producers**.

Animals can't make their own food in the way that plants do. They have to get their food by eating plants or eating other animals. Animals are **consumers**. An animal which eats another animal is a **predator**. The animal which gets eaten is its **prey**.

A food chain shows what eats what. It will begin with a green plant, a **producer**, which will be eaten by a plant-eating animal, a **herbivore**. This is a **consumer**.This animal will be eaten by another animal, a meat-eater or **carnivore**. This is also a **consumer**.

Extra fact:
You may sometimes see the first animal (the plant-eater) in the food chain called the **primary consumer** and the second animal (the meat-eater) in the food chain called the **secondary consumer**.

Extra fact:
Animals which eat plants and also eat other animals are called **omnivores**. Humans are omnivores: we eat plants but we also eat meat.

See Activity Sheet 7 for work on food chains.

Habitat Investigation - Woodland Minibeasts

Minibeasts can be found throughout the woodland, living on trees and bushes, and in the leaf litter on the ground. Minibeast habitats also include any plant, underneath rocks and in cracks in walls, so you can even find some in your school's garden or play-ground.Typical woodland minibeasts might include:

Leaf Litter	**Bushes**
spiders	aphids
ants	bush crickets
slugs	spiders
worms	shield bugs
grubs	caterpillars
beetles	flies
woodlice	moths
centipedes	butterflies
millipedes	ladybirds

Extra fact:
Minibeasts are good indicator species for the richness of a woodland habitat. If there are lots of minibeasts, there must be lots of plants for them to feed on and there will also be lots of animals which eat the minibeasts.

Minibeast Food Chains

This is a typical minibeast food chain. Most food chains start with a green plant. However, many minibeasts will eat dead and rotting plants and so their food chains will start with these. Naturally, many minibeasts such as aphids, caterpillars and bush crickets do eat green plants and are classed as herbivores.


rotting wood


woodlouse


centipede

Extra fact:
Dead and rotting plants are not producers. They are called detritus and the animals which eat them are called detritivores.

See Activity Sheets 5 and 6 for work on minibeasts.

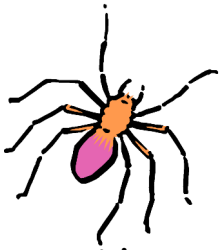
Activity Sheet 1 - Plant or Animal?

Look at these pictures and decide whether each one is a plant or an animal.
Write its name in the correct box underneath.

red squirrel

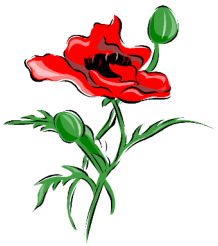
frog

tomato

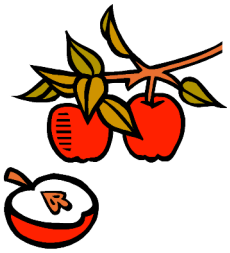


spider

fish

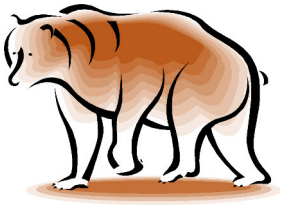


poppy



apple

elm tree



bear

Plant	Animal

Activity Sheet 2 - Where do I live?

Look at the list of animals and their habitats. Draw a line to link each each animal to the right habitat. The first one has been done for you!

Otter

Deer

Squirrel

Mole

Hare

Harvest mouse

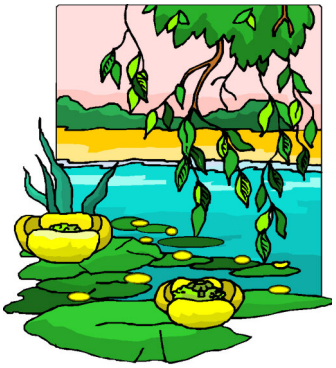
Frog

Wolf

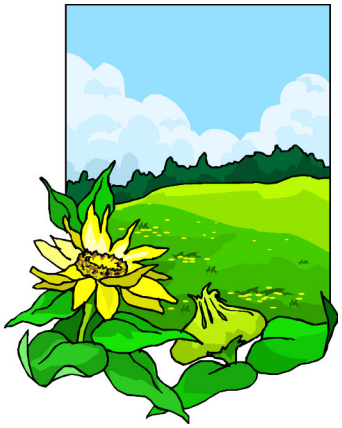
Heron

Woodland

Lake



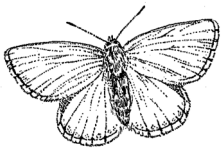
Field



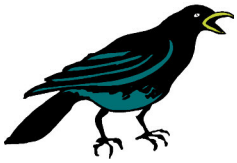
Activity Sheet 3 - How many habitats?

There are lots of different habitats in this picture. How many can you spot? Circle all the habitats you can see. Remember, some will be big and some will be small.
Next, draw a line from each animal to the habitat it would live in.

hedgehog

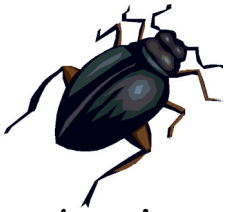


butterfly

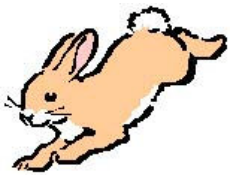


blackbird

caterpillar



beetle



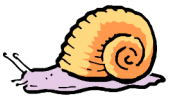
rabbit

woodlouse

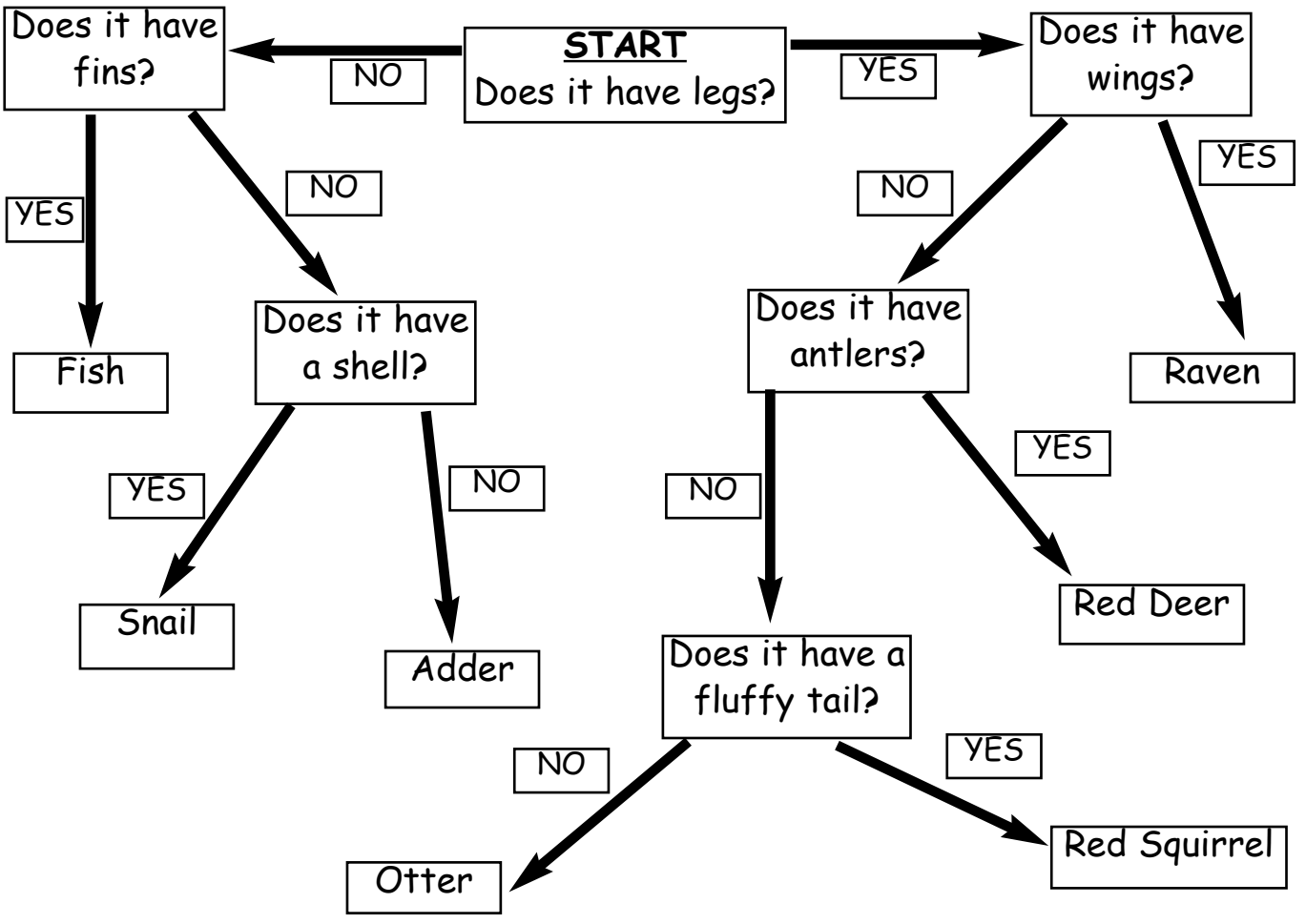
Activity Sheet 4 - What am I?

Use the key to identify these mystery animals. Write the name of each one underneath their picture.

_____ _____ _____ _____

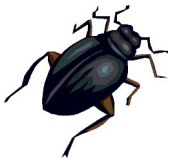


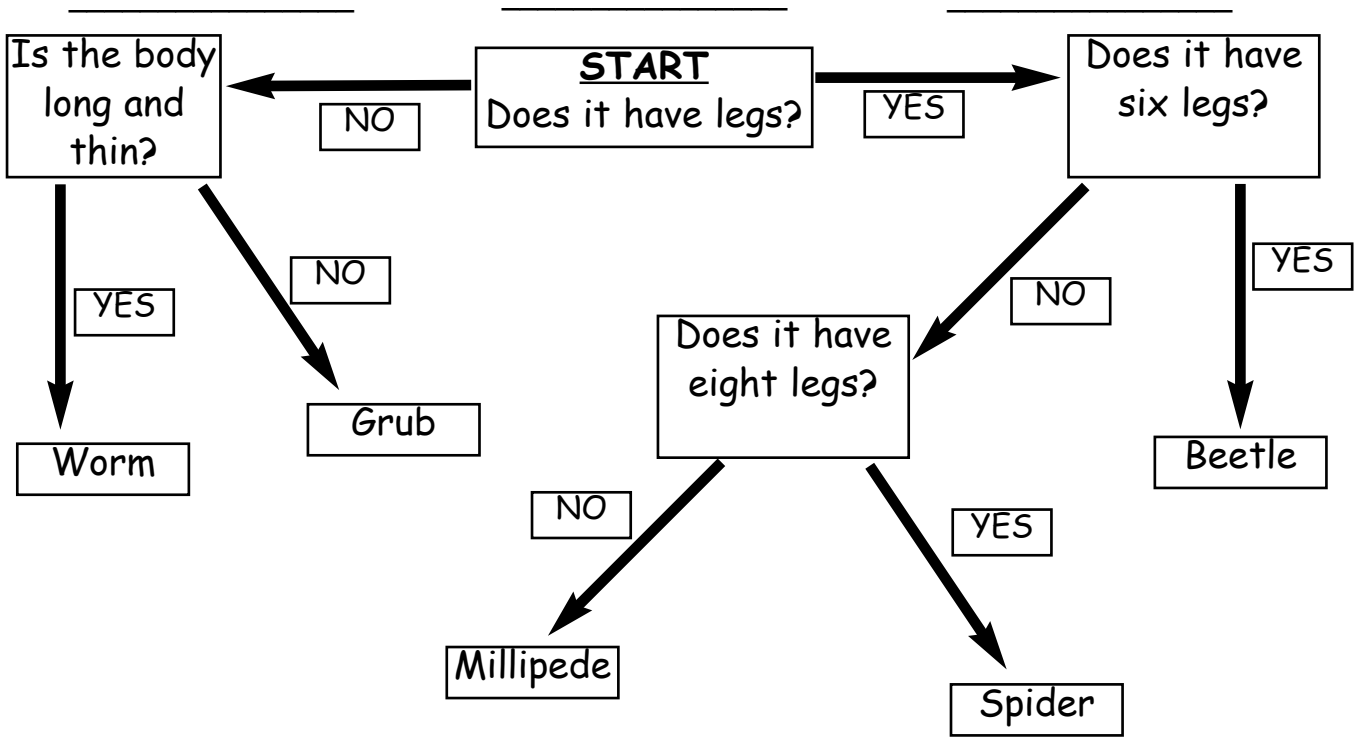
_____ _____ _____



Activity Sheet 5 - Magnificent Minibeasts

Use the key to identify these minibeasts.

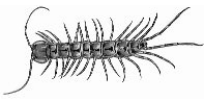




A Minibeast Food Chain

Most food chains start with a green plant. Minibeasts are special beacuse they can eat dead plants like rotting wood. This minibeast food chain starts with rotting wood. Write the rest of the food chain in the right order. Write down which minibeast is the prey and which is the predator.

rotting wood



centipede

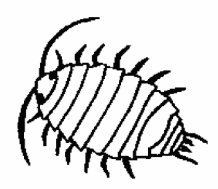
woodlouse

..... → ..... → .....

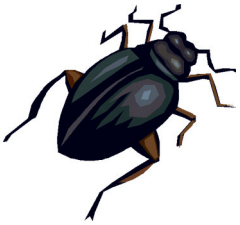
Prey..... Predator.....

Activity Sheet 6 - Maths with Minibeasts

Ben and Nazia investigated a habitat at their school. They found lots of minibeasts.



10 woodlice

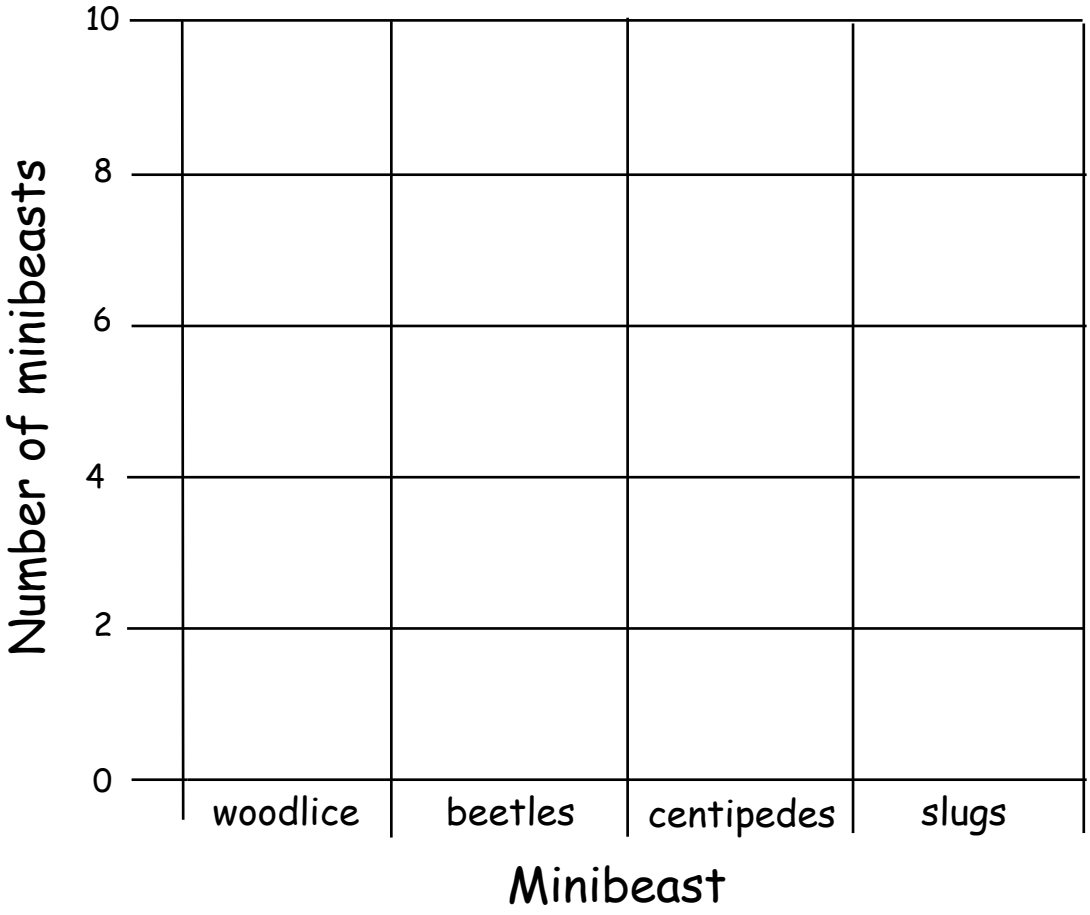


1 beetle

6 centipedes

3 slugs

Make a bar chart to show the numbers of minibeasts they found.



What sort of habitat do you think they looked in? Circle the right answer.

In a puddle Under a rock In a tree

Activity Sheet 7 - Food Chains

Write these food chains in the correct order. Then write the name of one producer, one predator and one prey in each food chain.

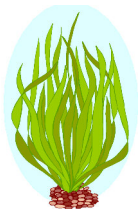
mouse

wheat

owl

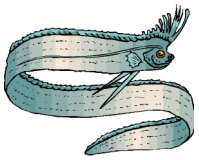
..... → ..... → .....

Producer..... Prey..... Predator.....



seaweed

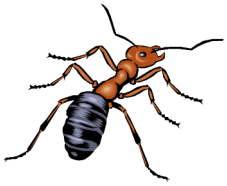
otter



eel

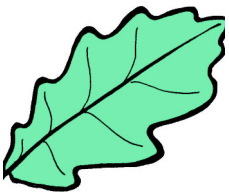
..... → ..... → .....

Producer..... Prey..... Predator.....



ant

caterpillar



leaf

..... → ..... → .....

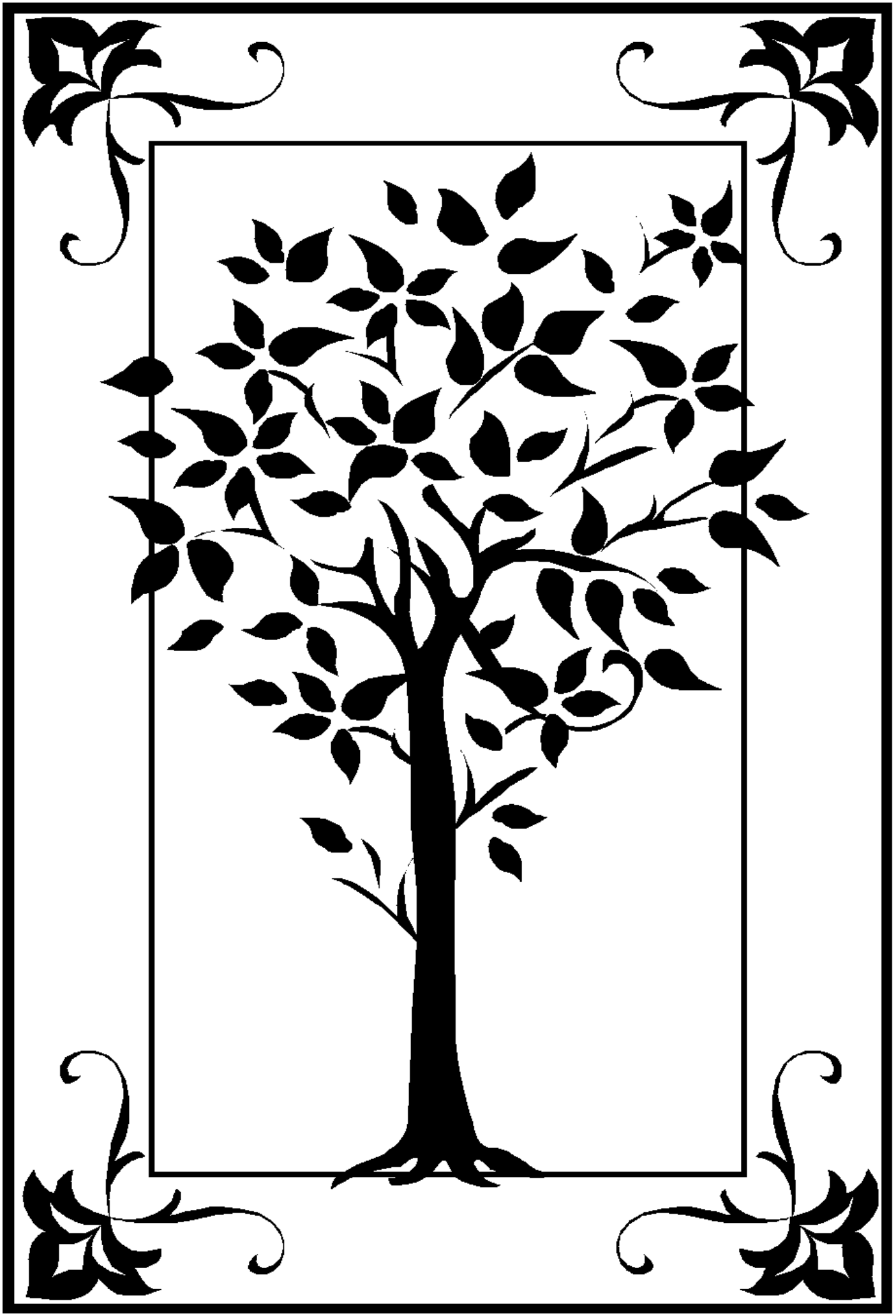
Producer..... Prey..... Predator.....

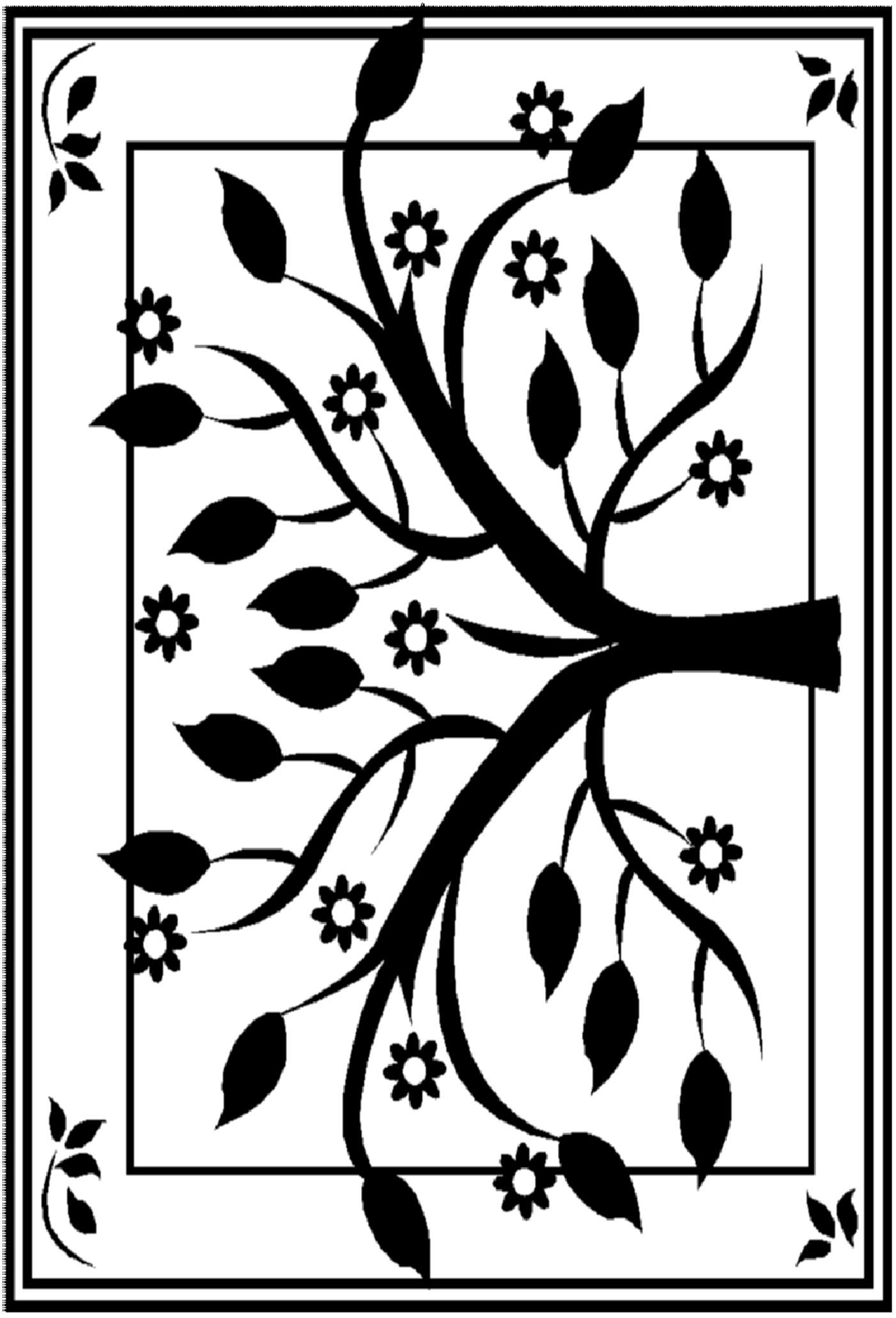
Woodland Literacy

Tree Poems

The following two pages show two tree pictures. Photocopy the box below and have children use it to write their own tree poem. It can then be glued on to the tree pictures, which could also be coloured in or decorated.

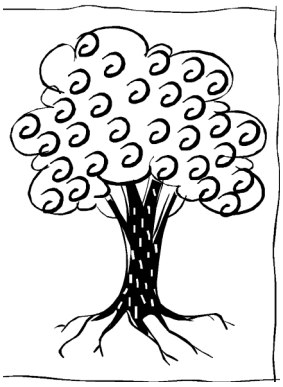
A Tree Poem





Woodland Art Ideas

Make a tree with real leaves!



Use the tree outline on the following page (Art Activity 1) to make a tree picture with natural materials. Try letting children do a bark rubbing for the trunk and collect leaves and glue them on. They could also glue on real grass at the foot of the tree or use paper or felt to cut out grass and flowers.

Make a leaf mobile!

Use the leaf outlines on the following pages (Art Activity 2 - Sheets 1-3) to make a mobile with natural materials. Children should decorate the leaves in autumn colours with any art materials available, then cut them out, make a hole at one end and tie string or wool through the hole. They should collect twigs and attach the leaves to the twigs using the string.

This could also be extended to make a woodland mobile by adding pictures of woodland animals as well as the leaves. If you prefer, the children could collect real leaves, make rubbings of them and cut them out.

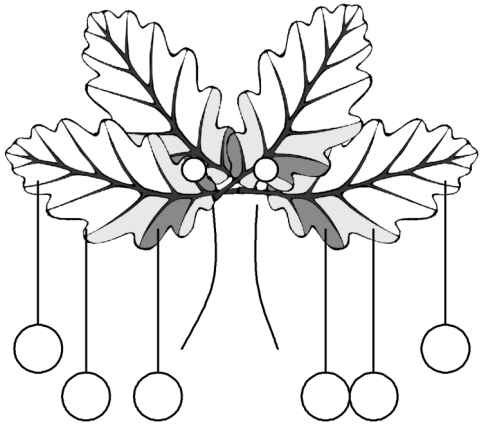
Make an oak tree habitat mask!

An oak tree can be the habitat for many different animals. Follow these instructions to produce a mask of an oak tree and all the creatures that live there.

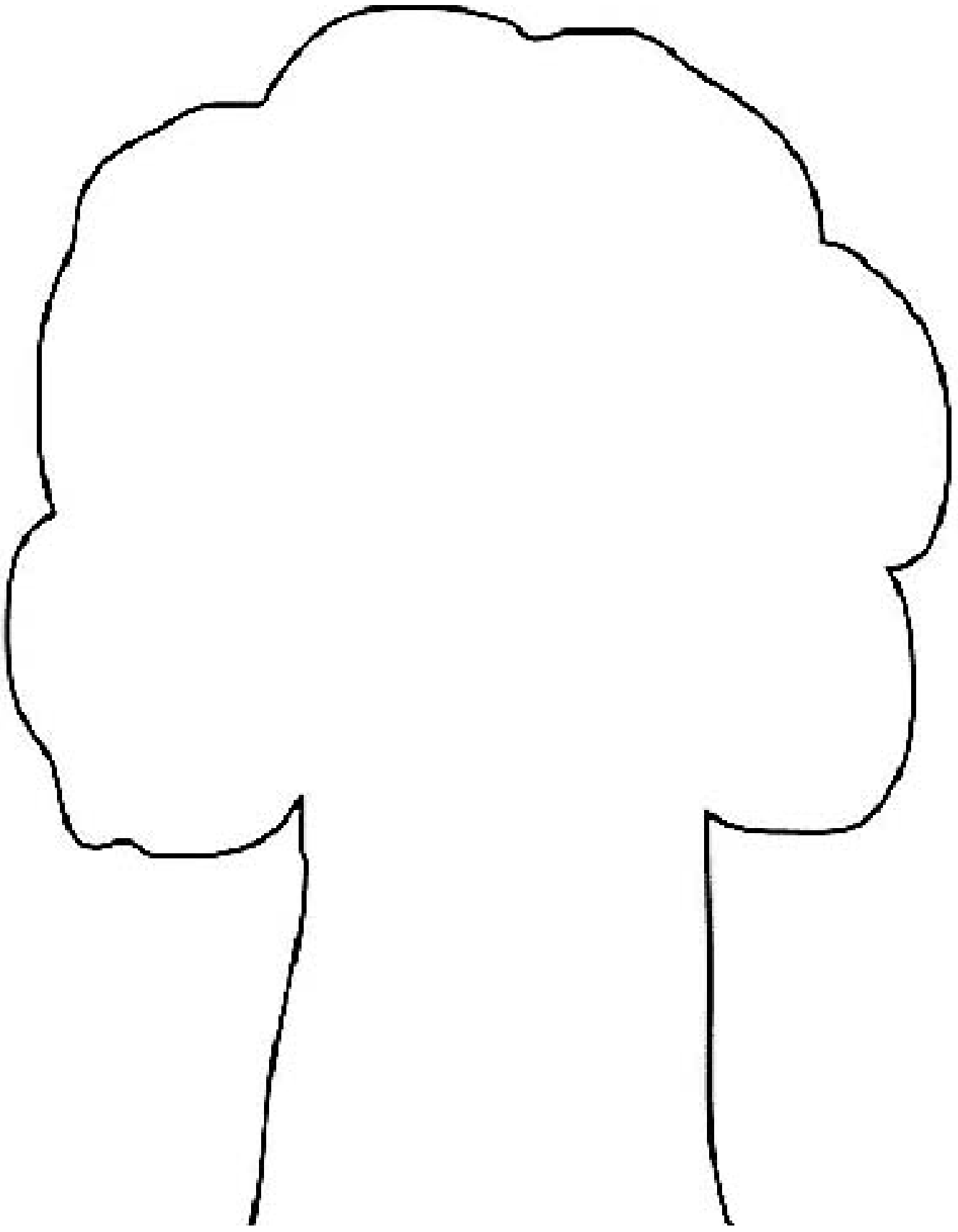
1. Have children cut out the circular pictures on the final page (Art Activity 3 - Sheet 3) and colour them in. Make a hole at the top of each picture and thread some string or wool through.

2. Have children cut out the tree trunk shape and two copies of each large oak leaf (Art Activity 3 - Sheets 1 and 2). Glue the leaves onto the trunk to make the tree. The leaves and trunk can either be cut out of card or use paper and stiffen them with small strips of card on the back.

3. Make holes around the lower edges of the leaves and thread the string through so that the pictures dangle from the leaves when children hold the mask up by the trunk. Make two eye holes.

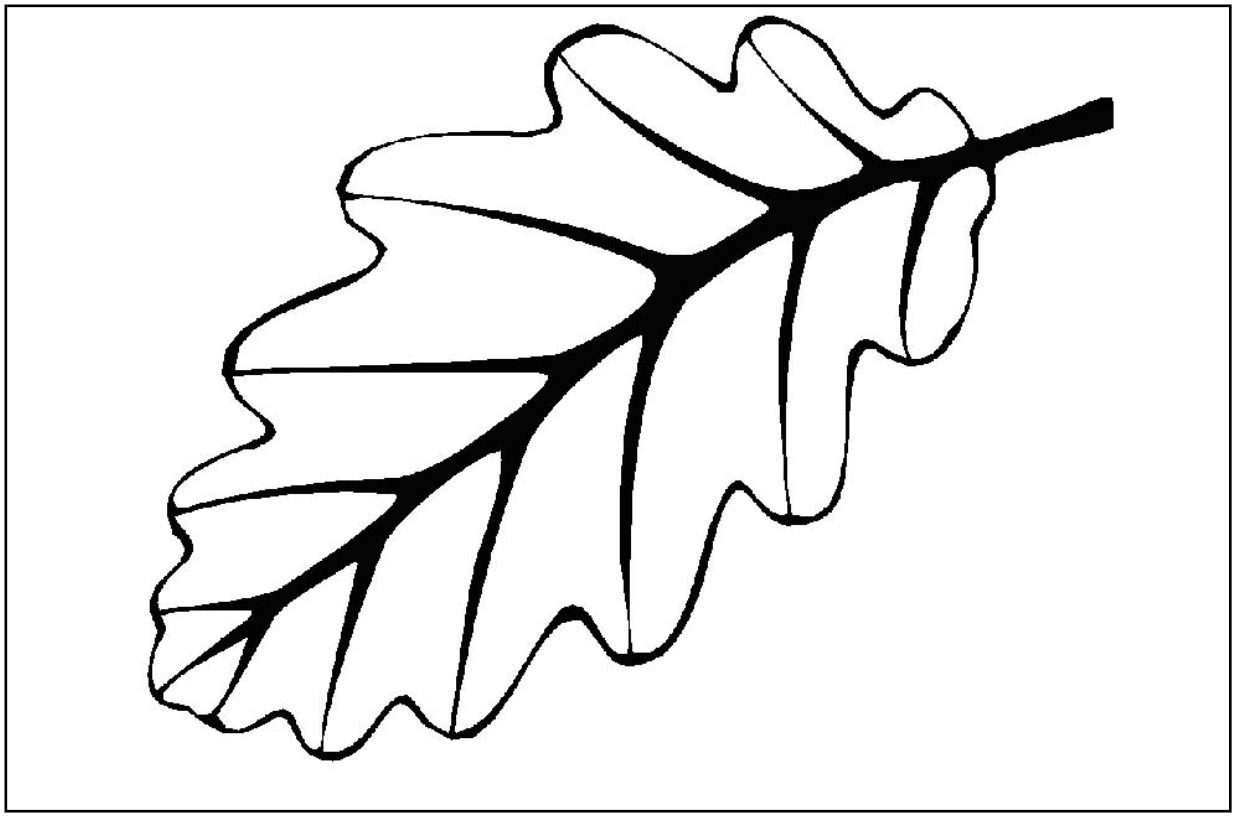


Art Activity 1 - Make a tree with real leaves!

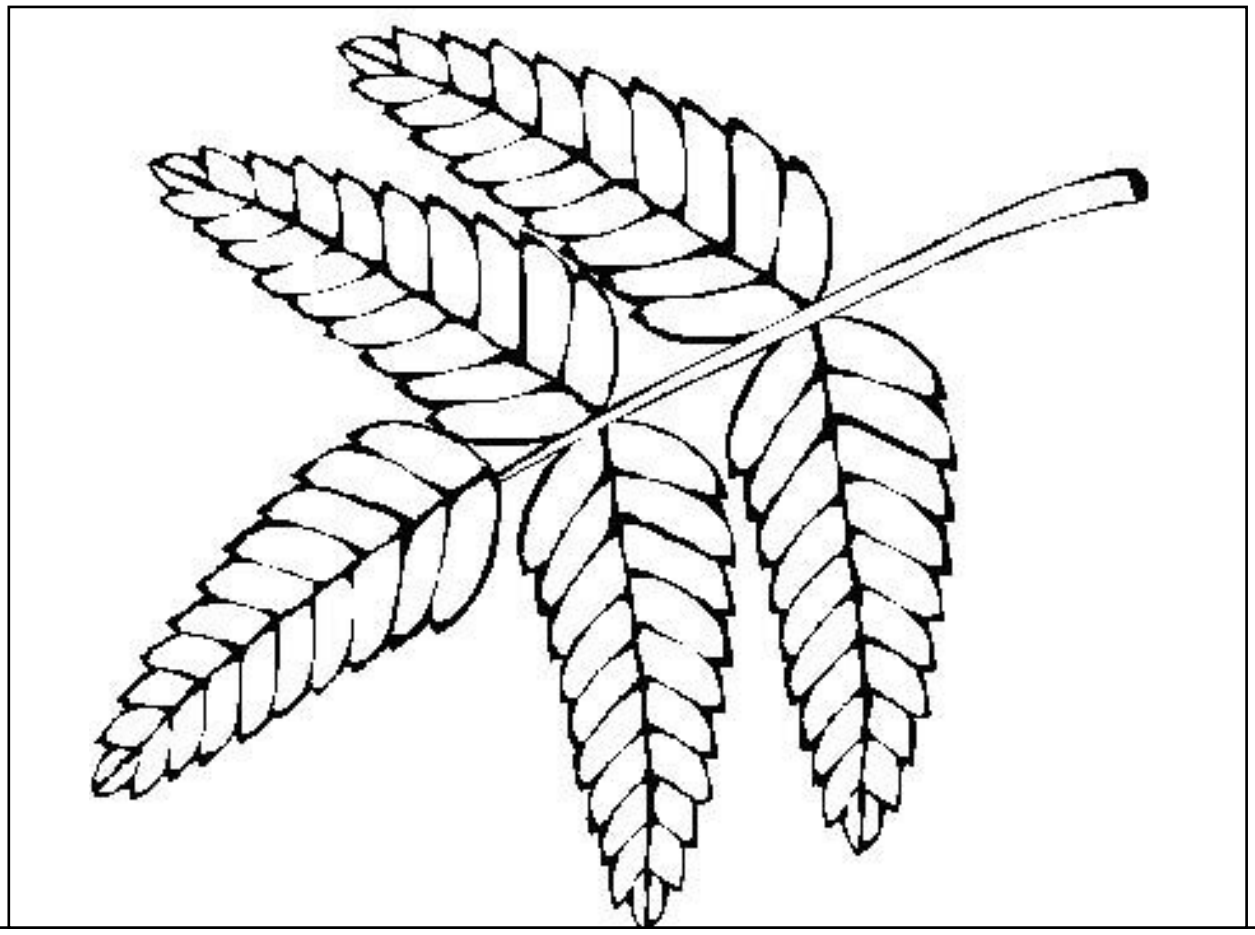


Art Activity 2 - Make a leaf mobile - Sheet 1

Oak Leaf

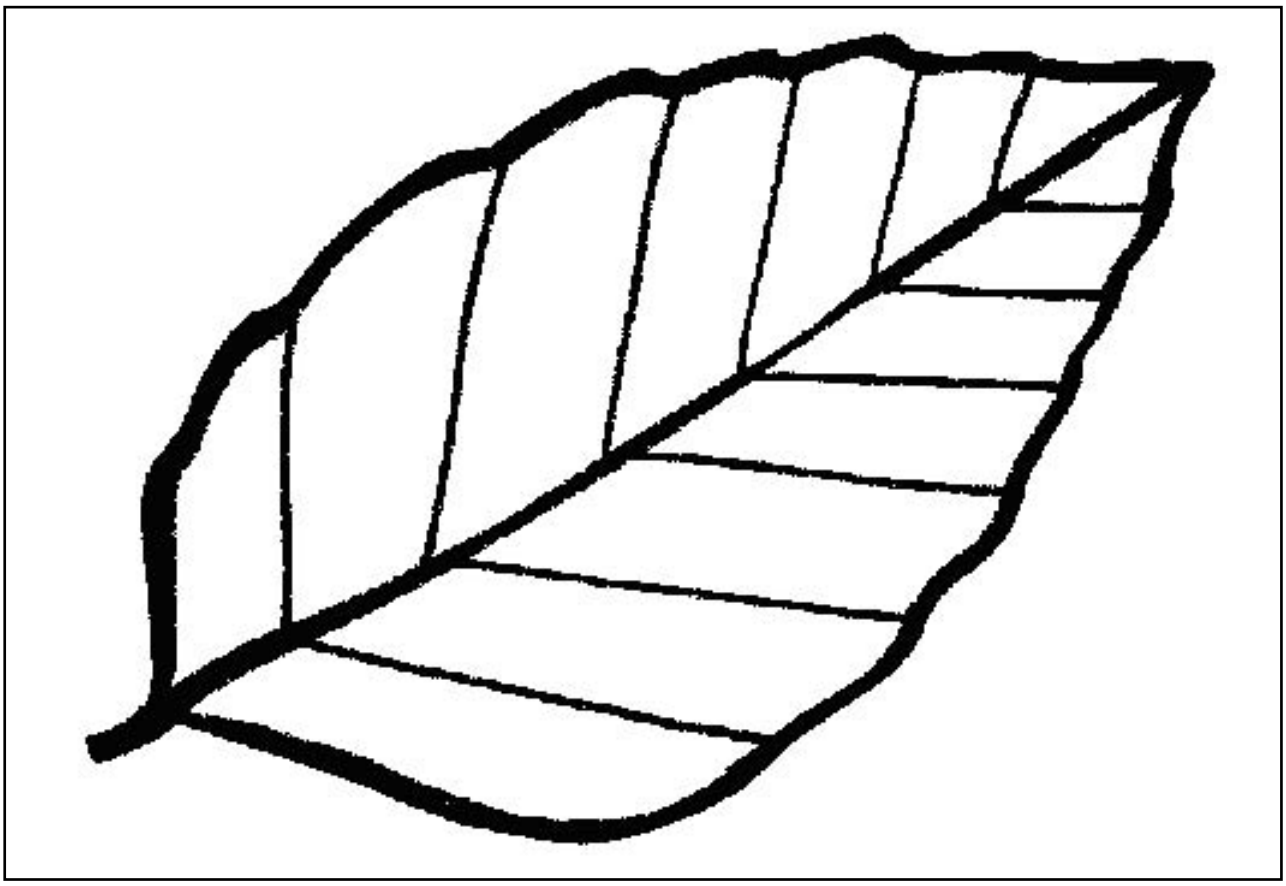


Rowan Leaf

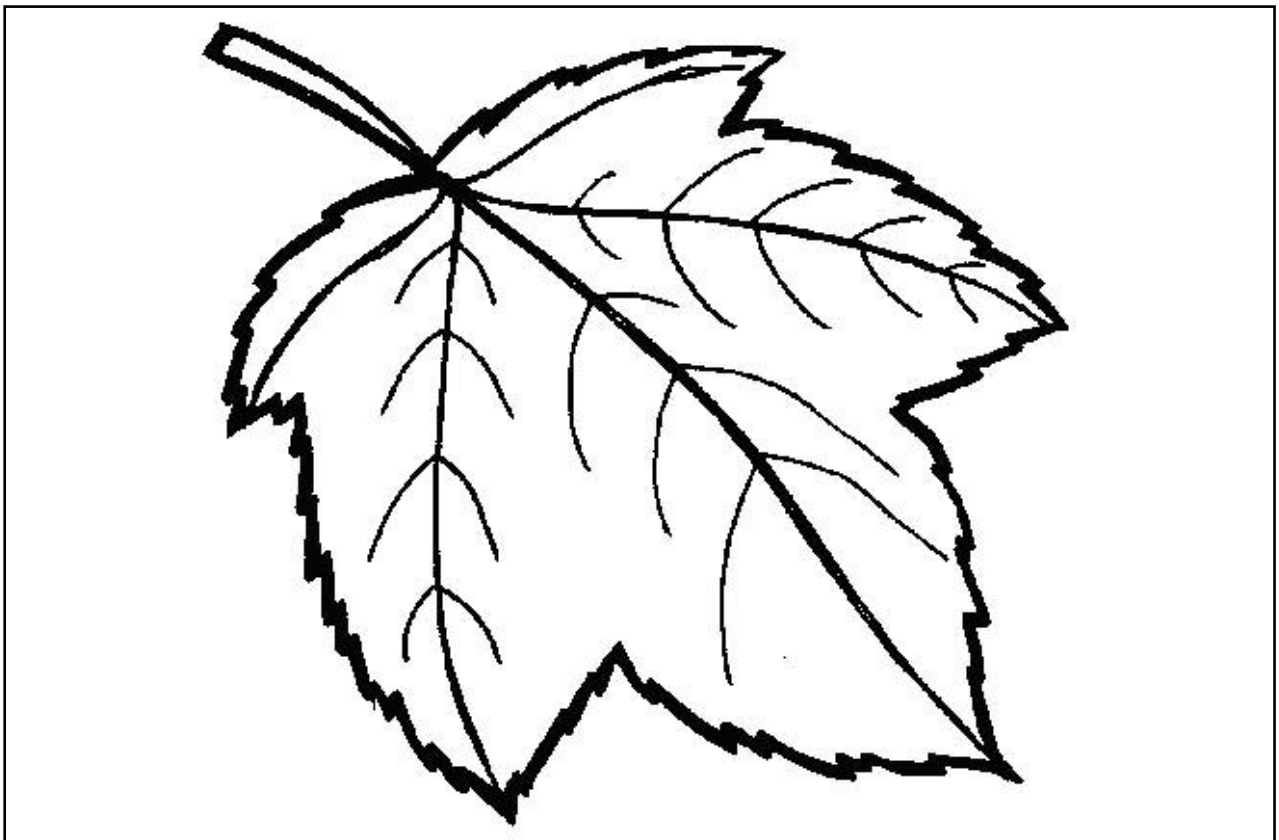


Art activity 2 - Make a leaf mobile - Sheet 2

Beech Leaf

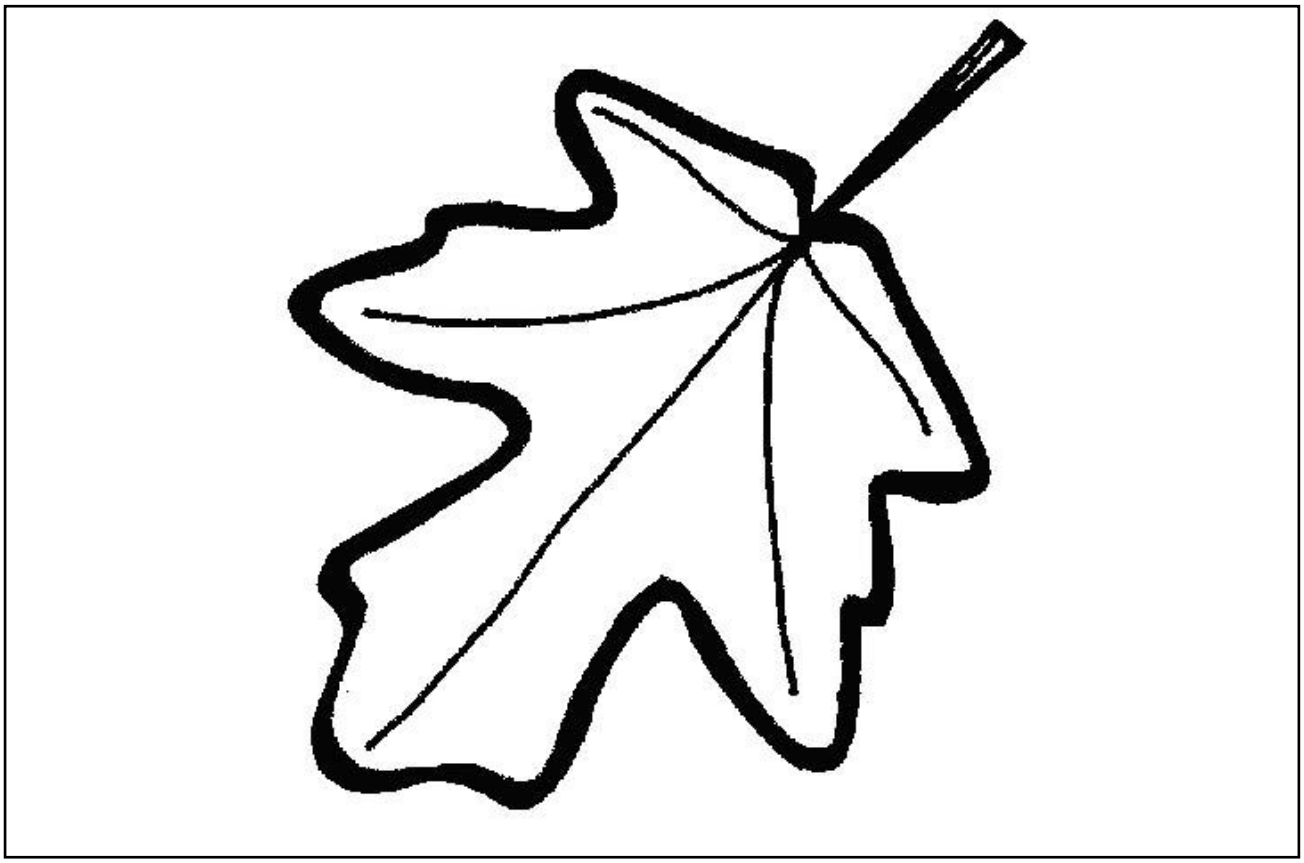


Sycamore Leaf

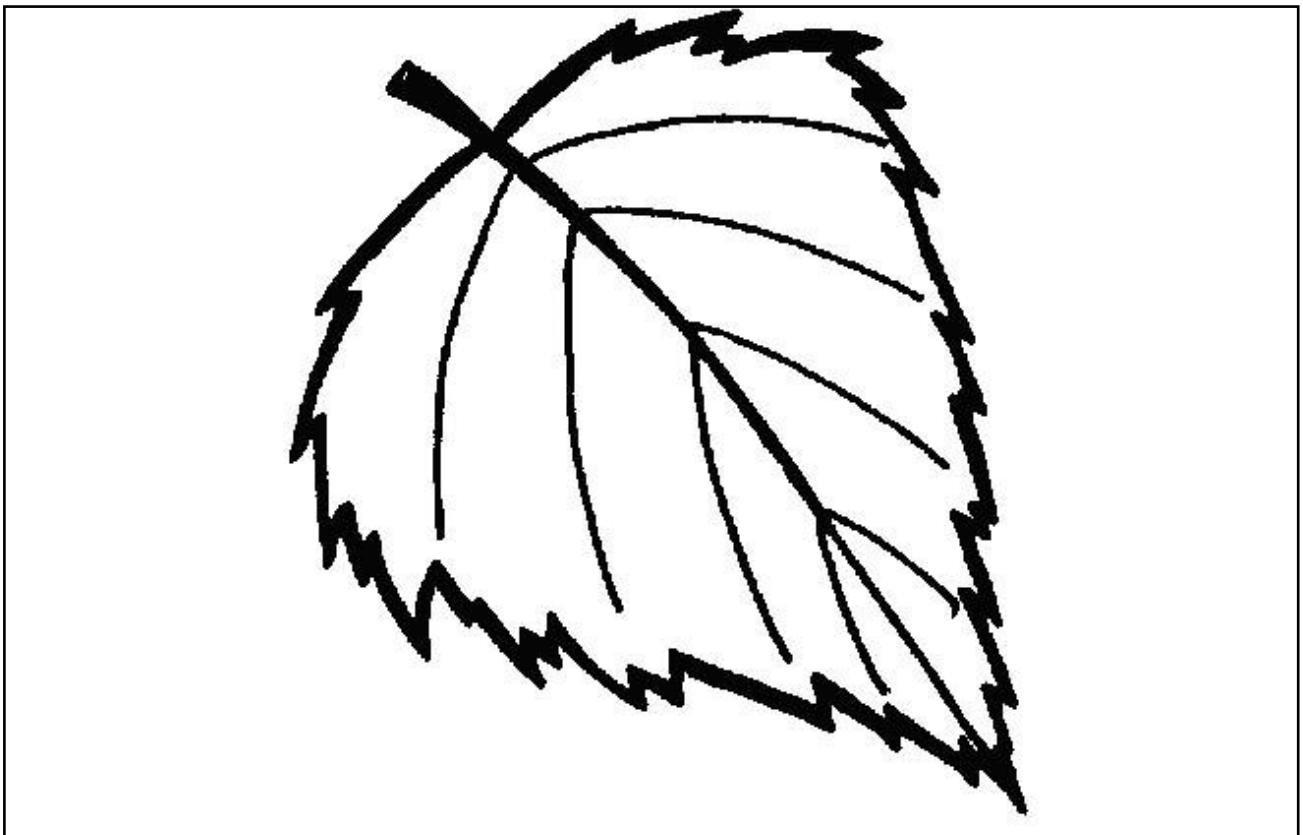


Art Activity 2 - Make a leaf mobile - Sheet 3

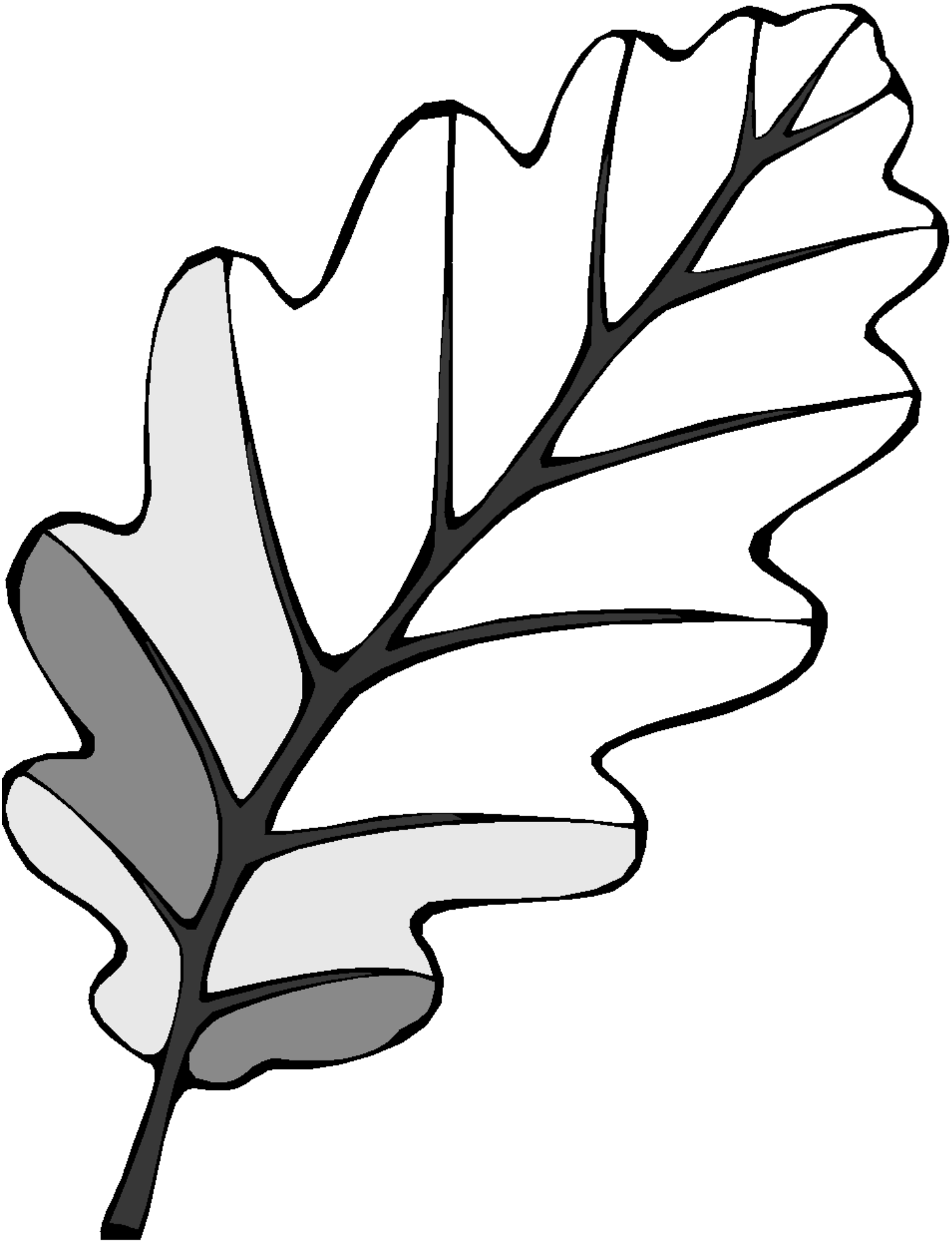
Field Maple Leaf



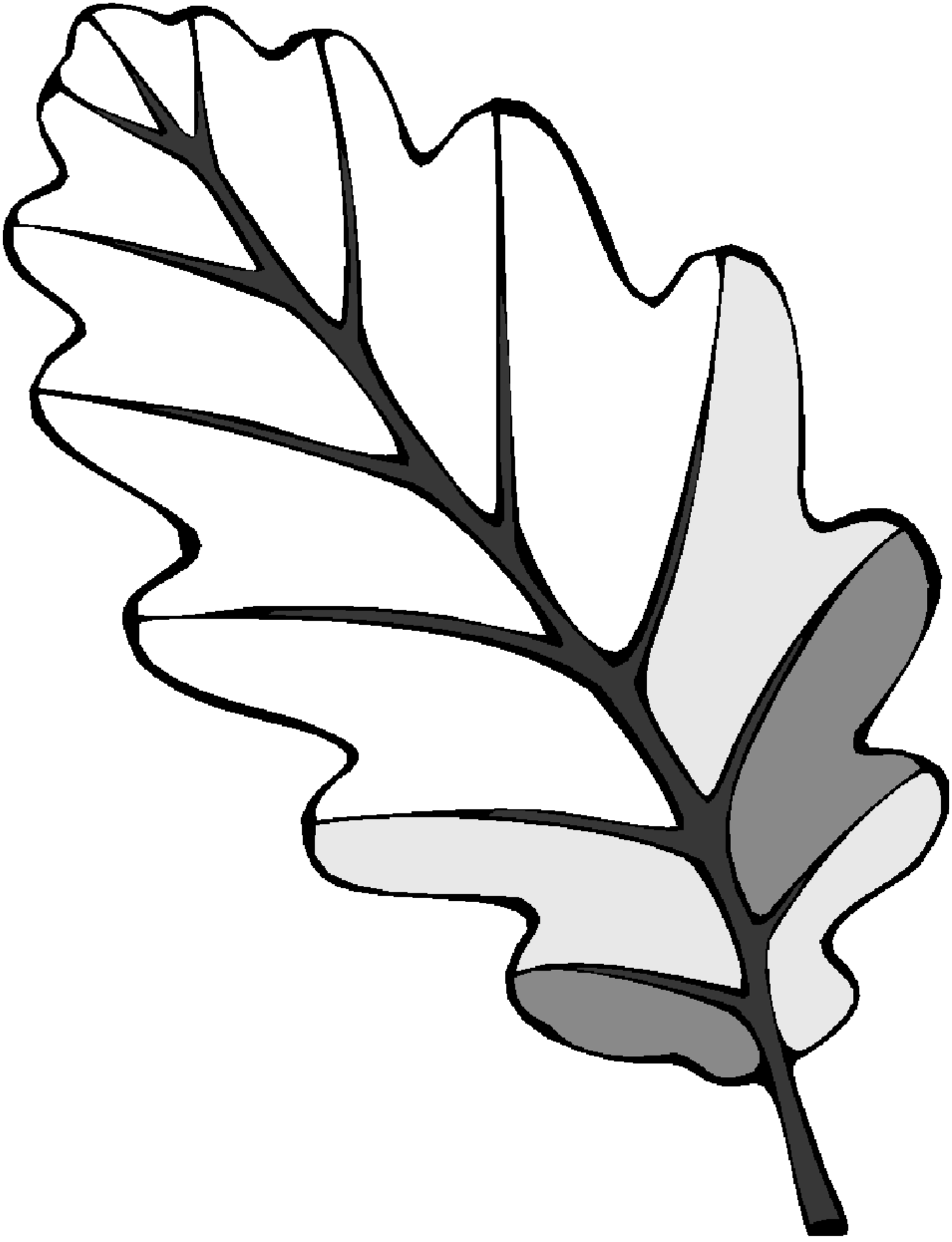
Birch Leaf



Art Activity 3 - Oak Tree Habitat Mask - Sheet 1



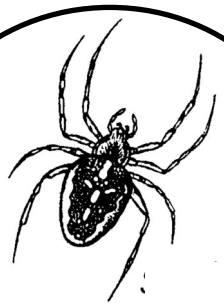
Art Activity 3 - Oak Tree Habitat Mask - Sheet 2



Art Activity 3 - Oak Tree Habitat Mask - Sheet 3

ant

centipede



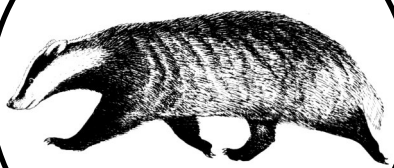
spider

owl

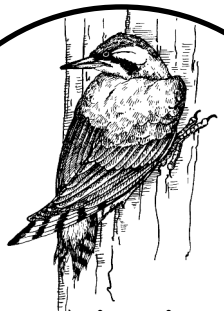
red squirrel

dormouse

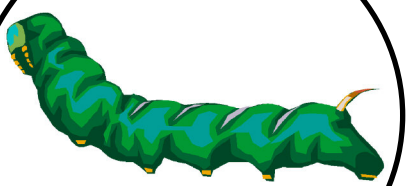
pine marten



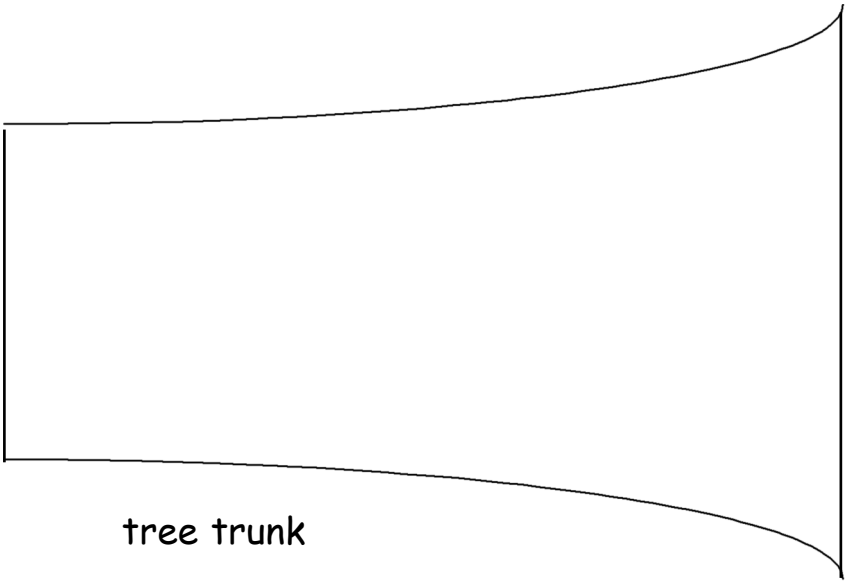
badger



woodpecker



caterpillar



tree trunk