

Cedars Park Science



Animals and their Habitats

This activity is going to investigate the range of animals found in the grassland and woodland habitats at Cedars Park and will start to identify features which make them suited to these habitats.

National Curriculum Links

Science Key Stage 1

- identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other
- identify and name a variety of plants and animals in their habitats, including microhabitats
- identify and name a variety of common animals that are carnivores, herbivores and Omnivores

Science Key Stage 2

- Explore and use classification keys to help group, identify and name a variety of plants and animals in their habitats, including micro-habitats.
- Recognise that living things can be grouped in a variety of ways.
- Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.
- Give reasons for classifying plants and animals based on specific characteristics.

- Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.

Equipment

- Clipboards, pencils and paper
- Cedars Park Education Pack map
- Cameras (optional)
- Grassland & woodland worksheets (see below)
- Range of equipment e.g. sweep nets, bug boxes, binoculars
- Identification sheets, invertebrates, birds, mammals
- http://www.naturedetectives.org.uk/NR/rdonlyres/0DC806AA-CCE7-463F-B167-4D9A9014570C/0/minibeast_spotter_sheet.pdf
- http://www.naturedetectives.org.uk/NR/rdonlyres/892A2344-2970-472E-8976-D70F06568C2E/0/hunt_beetle.pdf
- <http://www.opalexplorenature.org/sites/default/files/7/file/Biodiversity-Survey-invertebrates-chart-web-version.pdf>
- Woodland animal adaptations picture cards & Grassland animal adaptations picture cards (see below)

Timing

- 2 hours

Activity

Start at either the woodland or grassland area on the map.

This activity will focus on the way that different habitats support different animal communities. It will compare animals in a grassland and woodland habitat using equipment such as sweep nets and bug boxes to capture animals for investigation. Children will start to learn that animals are adapted to suit the different conditions where they live. It will teach them valuable observation skills. Get them to be quiet when observing or that will disturb the wildlife!

Split the children into groups of 4-5 children and if possible one adult per group.

Explain that they are going to carry out some investigations into animals and where they live. They will be going to 2 different habitats at Cedars Park; grassland and woodland.

How many different types of habitat can they think of? Can they think of different habitats in Cedars Park?

Go to the area marked as grassland habitat on the map (the old pond near the main car park). Explain that this is a grassland habitat.

Ask what is a **grassland habitat**? What might they expect to see in a grassland habitat?

Ask what sort of animals they might expect to live in this area.

Why would they expect certain animals to live there?

Give suggestions for animals, e.g. grasshopper, butterfly.

What is special about this animal to help it live in grassland?

Ask how they would try to find out what animals are living there? And how can they record this?

Explain that people who study nature e.g. David Attenborough use lots of different ways to study animals in their environment e.g. special equipment to catch different animals show examples, butterfly nets, sweep nets, bug boxes, binoculars.

Activity 1: Split the children into groups of 4-5 children and if possible one adult per group.

Tell them that we are going to observe the animals in the grassland habitat and make drawings of what they see. Close inspection of the layers will be required including the ground and shrub layer. The aim will be to record and draw what they find in these layers. It may be

useful to assign roles for this for example ornithologists who will record the birds, and entomologists who will record the insect life.

Hand-out:

- Pupil worksheet (grassland)
 - Binoculars, bug boxes, sweep net.
 - British animal identification sheets. (birds, insects, mammals)
- See equipment list

Allow 45 minutes for surveying and recording.

Activity 2: Grassland Animal Adaptations card game

Hand out image cards of animals that could be found in the grassland. These should be cut out and laminated in class in advance. Or the game played back in class.

Children told that they are going to try and match the description of the animal to the picture card. Each group competes to be the fastest to correctly match the cards.

Activity 3: Go to the woodland area marked on the map and repeat the survey of animals in the woodland. Work in groups again.

Hand-out:

- Pupil worksheet (woodland)
- Equipment as stated above

Remind them that they are going to investigate the woodland layers including the ground, shrub and tree layers.

Activity 4: Woodland Animal Adaptations card game

Repeat the card game in groups this time using the woodland animals card game. (This activity could be done back in class).

Extension Activity/Follow Up

- Animals can be compared between the grassland and woodland habitat. A Venn diagram can be used to show those animals which were surveyed and occurred in one habitat, and those which are found in both.
- Get pupils to pick one animal from the grassland habitat and one from the woodland, for example the kestrel and the tawny owl. Get them to think about the adaptations of both birds which make one suited to living in the grassland and the other in the woodland. Why would one struggle to live in the other habitat?
- Pupils can come up with their own creature. Get them to think about features which make it suited to a certain lifestyle and habitat.

Background information

Have a look at the following websites for information on British Animals.

- The Mammal Society. Try their species hub.
http://www.mammal.org.uk/species_hub
- The RSPB for birds. Try their bird identifier site.
<http://www.rspb.org.uk/wildlife/birdidentifier>
- Buglife for all insects and minibeasts and their bug identifier.
<http://www.buglife.org.uk/bugs-and-habitats/bug-identifier>

Name:

School:

Date:

Draw 2 animals in each circle that you see in the **grassland habitat**. Could any of the circles overlap?

In the grass

In the air

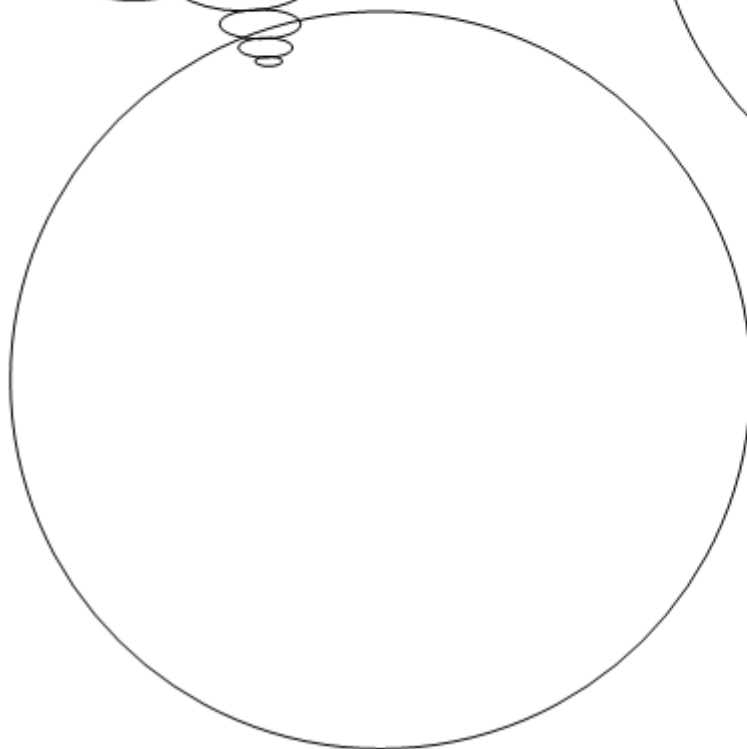
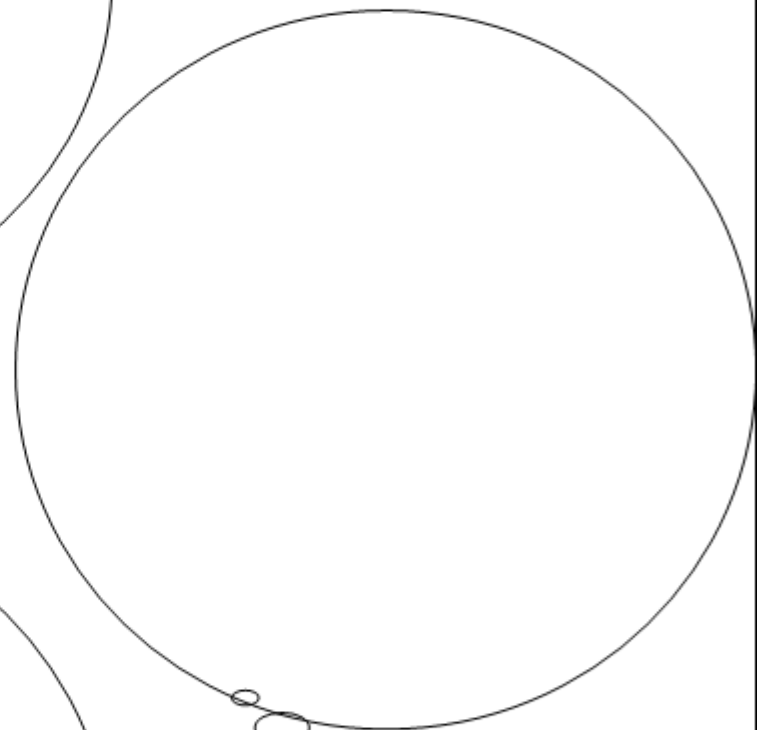
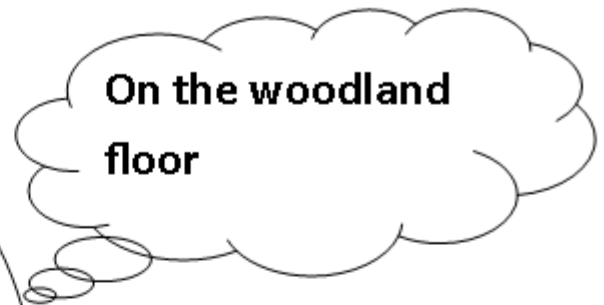
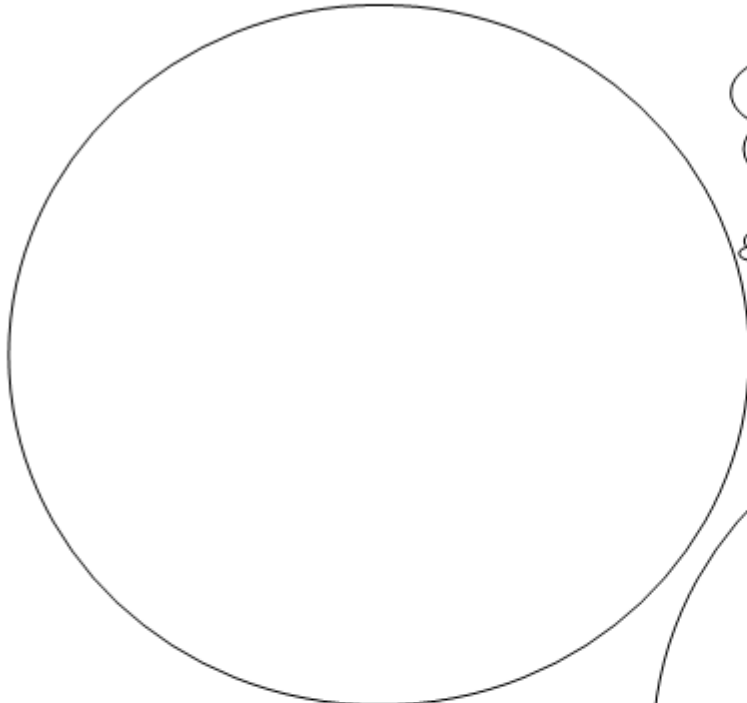
On bushes

Name:

School:

Date:

Draw 2 animals in each circle that you see in the **woodland habitat**. Could any of the circles overlap?



Grassland animal card adaptation game

Cut out and laminate the writing and pictures separately so they can be matched up. The aim is to match the description of the animal to the picture cards.

All of the animals have adaptations which make them suited to the grassland habitat. Work in teams and see which team matches them up first.

1. Rabbit



- I have long ears to help pick up sounds
- I have long front teeth to help bite through plants
- My brown colouring makes me camouflaged in long grass

2. Yellow Meadow Ant



- I live in colonies
- Sometimes the colony is so large we make a hill in the grass
- We raise our young in these colonies
- We are carnivores and eat small aphids

3. Green Woodpecker



- I am mostly green with red on my head
- The green makes me camouflaged in grassland
- My favourite food is ants
- I have a loud laughing call
- My long sticky tongue can fish for ants

4. Meadow Grasshopper



- I feed on plants and grass
- My brown colouring makes me camouflaged in the grass
- I rub my legs together to create a 'chirrup' call
- My eggs are laid in the soil
- My strong legs help me jump very long distances

5. Field Vole



- I have grey brown fur
- I come out at night
- I like to eat a mixture of grasses
- Lots of animals like to eat me including kestrels so I stay hidden in the grass
- I make my nest from grasses at the base of tussocks

6. Kestrel



- I can be seen hovering over grasslands looking for food
- I feed on small mammals such as the field vole
- I have sharp talons for catching and ripping into my prey

7. Shield Bug



- I am bright green and very camouflaged on grasses and bushes
- My body is well protected from predators and looks like a shield!

8. Meadow Brown Butterfly



- I lay my eggs on meadow grasses
- My caterpillars feed on grass
- As a flying adult I like to feed on nectar from flowers
- I am camouflaged on the ground with my wings closed

Woodland Animal card adaptation game

Cut out and laminate the writing and pictures separately so they can be matched up.

The aim is to match the description of the animal to the picture cards. All of the animals have adaptations which make them suited to the woodland habitat. Work in teams and see which team matches them up first.



1. Hedgehog

- I walk around the woodland floor looking for tasty slugs, snails and insects
- I hibernate in winter, and especially like large log piles
- I have a long snout to help sniff out food
- I have spines for extra protection
- I am nocturnal



2. Woodlouse

- I am similar to shrimps and lobsters, but I live on land
- I live in damp areas, and avoid the light
- I like to live under logs and stones
- Some of us can roll into balls to avoid predators
- I like eating decaying leaves and rotten wood



3. Grey Squirrel

- I have large gnawing incisor teeth
- I have short front legs and large hind legs which give me lots of power to leap around trees
- My long tail helps me balance



4. Tawny Owl

- I am carnivorous
- I am a variety of shades of brown so am very well camouflaged in trees
- I have sharp talons for capturing prey
- I make my home in holes in trees
- I fly very silently at night



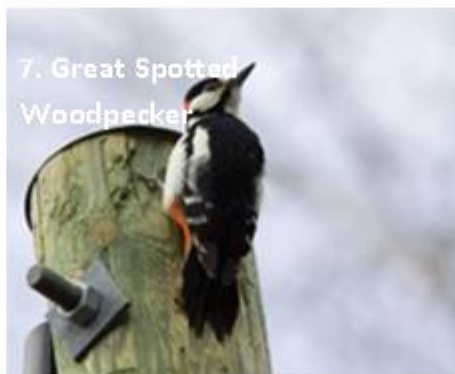
5. Speckled Wood Butterfly

- I flutter through the woodland
- My dappled brown colours make me camouflaged as I fly around the wood
- I feed on honeydew secreted from leaves on trees



6. Jay

- I am brightly coloured
- I am omnivorous
- I have a powerful beak for cracking acorns
- I also like to eat insects and sometimes I eat baby birds in spring
- I come out in the day



7. Great Spotted Woodpecker

- I am brightly coloured with red and black
- I am omnivorous and eat nuts and insects
- I have a powerful beak for drilling holes into wood
- I hunt for insects under bark



8. Centipede

- I am carnivorous
- I can be yellow or brown
- I have lots of legs and can move quickly
- I don't like light
- I live on the woodland floor
- My body needs to be kept wet all the