

Name of session	Backyard Beasties		
	Level: Key stage 1	Length of session: 2 hrs (half day)	Available at: Sutton Ecology centre
Curriculum Links			
Science			
Working scientifically (Y1&Y2)			
<ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways (e.g. homes – habitats) observing closely, using simple equipment (e.g. magnifying glasses) identifying and classifying (using keys, ID worksheets to identify minibeasts) using their observations and ideas to suggest answers to questions (e.g. colours of minibeasts compared to habitat; camouflage) gathering and recording data to help in answering questions (e.g. numbers of different types of minibeasts found in different habitats) 			
Animals, including humans			
Pupils should be taught to:			
(Y1)			
<ul style="list-style-type: none"> identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals (<i>in this session, amphibians and minibeasts</i>) identify and name a variety of common animals that are carnivores, herbivores and omnivores 			
(Y2)			
<ul style="list-style-type: none"> notice that animals, including humans, have offspring which grow into adults (<i>Examples in this session might include: egg, caterpillar, pupa, butterfly; spawn, tadpole, frog</i>) find out about and describe the basic needs of animals, including humans, for survival (water, food and air) 			
Living Things and their Habitats			
Pupils should be taught to:			
(Y2)			
<ul style="list-style-type: none"> 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 describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. 			
Previous knowledge expected from students		Key concepts/key words	
Name a minibeast.		Habitat, minibeast, insect, amphibian, territorial, camouflage, microhabitat, woodland, meadow, pond, adapted,	
Learning objectives			
<p>Learn examples of habitats and what a habitat is.</p> <p>To be able to find, using a variety of equipment, recognise and identify, using a variety of keys, several minibeasts (invertebrates and amphibians and fish)</p> <p>Learn that some creatures are herbivores, carnivores or omnivores and what these terms mean.</p> <p>Learn that creatures are adapted to their habitat in a variety of different ways (camouflaged, mouth parts, breathing underwater, body shape etc)</p> <p>To introduce the concept of a food chain (YR2 only)</p>			
Outcomes			
<p>All pupils will have investigated, observed, identified and recorded a variety of minibeasts in the woodland/meadow and pond habitat, using appropriate equipment</p> <p>Pupils will be able to name a variety of minibeasts, and have used a simple key to identify them.</p> <p>All pupils will learn the name of two different habitats pond and woodland or meadow.</p>			

All pupils will predict which habitat one creature lives in.
 Some pupils will understand that creatures are specially adapted for their habitat.
 Some pupils will understand that the minibeasts are either herbivores, carnivores or detritivores and be able to name some.

Starter

Welcome, and introductions.
 Introduce the word 'habitat' and explain we have three main different habitats at Sutton Ecology centre; pond, meadow and woodland.

Introduction

Timings	Student Activity
20mins	<p>Minibeast identification and habitat.</p> <p>Each pupil will be given a plastic toy minibeast to identify, aided by discussion with their fellow pupils and asking the course leader where uncertain. They will then need to decide which habitat they think it is suited to; pond, meadow or woodland. The course leader will go through the minibeasts and habitats chosen to confirm whether correct and to discuss their adaptations to their habitat.</p>
10mins	Pupils to use toilet facilities prior to outdoor activities

Main Activities

Timings	Student activity
45mins	<p>Minibeast explorers – meadow or woodland (depending on weather and season)</p> <p>With a bug pot and brush, we investigate the meadow/ woodland areas of the Ecology centre to find a variety of minibeasts for each habitat. Pupils will need to investigate different micro-habitats to search for minibeasts; e.g. under stones, logs, leaves, in grasses. Return to groups and use worksheet to help identify minibeasts, marking a tally to record the numbers of each minibeast found (for each group)</p> <p>The tallies recorded for the habitat can then be discussed, was it the animals we predicted?</p> <p>Discuss the conditions in different habitats and micro-habitats and how the conditions affect the number and types of plants and animals that live there. e.g. why might we find grasshoppers in the meadow rather than the woodland? Mention camouflage.</p> <p>Results can be further investigated in follow up sessions back at school.</p>
30mins	<p>Pond dipping</p> <p>Each pupil will have at least one turn using the nets to dip for pond creatures, emptying them into trays of pond water where they will be able to observe them more closely. Creatures can be transferred to an observation tank for closer inspection and keys are available to aid identification. Worksheets are also available to record findings such as tallies for each type of pond creature found.</p>

Plenary (10mins)

Recap the variety of creatures found in the habitats. Back at the centre, wash hands & use toilet facilities.

Extension work

Draw a picture of a pond minibeast.

Baby animals: imagine you are a baby animal just been born: a caterpillar just hatched, a tadpole has emerged from its egg within the frog spawn. What can you see, smell, hear?
 How big are you?

Pre-course preparation work suggestions

Go on a minibeast hunt in the school grounds. Discuss what other minibeasts pupils might have seen at home, in the garden or on the way to school. Are there any minibeasts that they hope they might see at the Ecology Centre? (this may lead on to a discussion to establish prior knowledge of the subject and what pupils would like to find out).

Research lesson (homework/groupwork in school) – give each child/group a different invertebrate that will be found at the Ecology Centre. Children research what it eats, what it is eaten by (put it in to food chains), habitat, adaptations, life cycle, etc. Make a fact file.

Further Work (post course) suggestions

Produce a class bar graph from the tally results from each habitat.

Write formal thank you letters, recalling what you did and did not enjoy about the day.

Categorise minibeasts in different ways: number of legs, colour, size etc.

Focus on the life cycle of some of the creatures found.

Alternatives (field sites and wet weather)

This session is not translatable inside, and therefore will go ahead in wet weather.

The introduction and plenary can be done inside if the weather is wet or too cold/windy.

The session will be cancelled only due to severe weather warning such as flooding, high winds and stormy weather.

Opportunities for evaluation

Teacher evaluation: Photograph pupils in action for evidence, observation throughout the session, assess understanding post session through activities and questioning. By providing appropriate level of adult/child ration to ensure pupils are kept 'on task'.

Leader evaluation: The session leader will assess progress throughout the day by open ended questioning and plenary session. Through observation, the session leader will ensure that all pupils are engaged in learning and complete the tasks required.

Resources

Minibeast identification and tally worksheets for Meadow, Woodland and Pond habitats

Clipboards, pencils

Bug pots, brushes, 'Slime pots', plastic spoons, larger minibeast cage

Sweep nets, cotton squares

Water tray, Observation tank, pond dipping net, magnifying glass, plastic spoons, pond creatures key

Key H&S

Sutton Ecology Centre provide one Education Officer for your group. Schools must provide a suitable number of adults to ensure pupils safety and engagement in the tasks.

Dress and prepare for the outdoors. Long trousers due to tall grass, brambles and nettles.

Sensible footwear in all weather conditions.

Waterproofs in wet weather. Sunhats, suntan lotion and water bottles in hot sunny weather.

All pupils and teachers should wash their hands prior to leaving the site or eating.

Teachers should arrange a pre-visit to discuss specific health & safety requirements to generate their own risk assessments.

Course leaders: Site check and dangerous litter pick. Health & Safety talks when appropriate.