

Name of session	Habitat Explorer (classification and food chains)		
	Level: Lower KS2 Year3&4	Length of session: 2 hours	Available at: Sutton Ecology Centre
Curriculum Links			
Working Scientifically			
<ul style="list-style-type: none">Gathering, recording, classifying and presenting data in a variety of ways to help in answering questionsMaking systematic and careful observations using a range of equipment (video microscope, magnifying glasses)Recording findings using simple scientific language, drawings, bar charts and tables			
Living things and their habitats			
<ul style="list-style-type: none">Recognise that living things can be grouped in a variety of ways (vertebrates and invertebrates)Use classification keys to help identify and name a variety of living things in their local environment			
Animals			
<ul style="list-style-type: none">Construct and interpret a variety of food chains, identifying producers, predators and prey.			
Previous knowledge expected from students		Key concepts/key words	
To have seen the pictures of a woodland and meadow in different seasons and to predict which creatures might be found in different seasons.		Vertebrates, invertebrates, classification of animals, observation, identification, dichotomous key, food chain, producer, herbivore, carnivore, decomposer	
Learning objectives			
To be able to group woodland and meadow animals into vertebrates and invertebrates, and to begin to put them into further groups.			
To be able to use a dichotomous key to identify creatures.			
To learn about food chains and understand the terms producer, herbivore, carnivore and decomposer.			
To be able to construct a food chain.			
To be able to use a variety of equipment and methods to collect woodland and meadow creatures, identify and record what they found and observe their findings carefully to make a scientific drawing.			
Outcomes			
Pupils will be able to name a variety of vertebrates and invertebrates, some pupils will be able to group these further.			
All pupils will have used a dichotomous key to identify at least one creature.			
Pupils will have constructed and recorded a food chain based on the creatures they found.			
Pupils will have recorded the creatures found in their groups and all pupils will have made a scientific drawing based on close observation of one creature.			
Starter			
5 mins: what season is it? Which picture of the woodland and meadow habitat matches this season best? What do you think we might find? Which season would we find most different types of minibeasts?			
Introduction			
Timings	Student Activity		
20 mins	Pupils are given a picture of a woodland or meadow creature and are asked to predict which habitat it lives in, woodland or meadow? They then group the creatures into Vertebrate or Invertebrate. Then, can these be grouped further?		

Main Activities	
Timings	Student activity
10mins	Construct a food chain using terms producer, herbivore, carnivore, secondary carnivore and decomposer. Which are predators, which are prey?
30 mins	Investigating the meadow, using a variety of equipment and methods to collect invertebrates. . Using a dichotomous key, pupils are shown how to identify their creatures. They record what they found using a tally.
30mins	Investigating the woodland, using a variety of equipment and methods to collect invertebrates. Using a dichotomous key, pupils are shown how to identify their creatures. They record what they found using a tally.
15mins	Pupils concentrate on observing one creature closely and making a drawing of one creature, and label it. Can they predict, based on observations of its characteristics if it is a herbivore or carnivore?
Plenary	
10mins: Can you use the creature you have drawn in a food chain? Making a food web. Preparing to leave, washing hands etc.	
Extension work	
What is the longest food chain you can make? Can you make a food web?	
Pre-course preparation work suggestions	
Discussion to establish prior knowledge and what the children would like to find out. Quiz to revise key food chain vocabulary. Use a dichotomous key to identify pictures of organisms. Research lesson (homework/group work 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	
Explore reasons why the ecology centre woodland or meadow may change (drought due to climate change may effect the plants, pressure for more housing may mean it is built on, it could be polluted by vandals throwing rubbish or waste into the nature reserve, and what the effect would be on the habitat and the biodiversity. How will the biodiversity of the different habitats be effected in different seasons – look at the photographs of the habitats in different seasons, what changes are going on? (i.e. no leaves on trees or flowers in the meadow for invertebrates). How does temperature effect the animals living there? Writing formal letters, making suggestions for changes, improvements future uses of Sutton Ecology Centre.	
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, written work on worksheet: can they make accurate observation of their creature, 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 sessions. Through observation, the session leader will ensure that all pupils are engaged in learning and complete the tasks required.

Resources

Laminated pictures of different woodland and meadow creatures, with Velcro.

Labels for grouping: Vertebrate/Invertebrate, bird, amphibian, fish, mammals, snails, spiders and insects.

Food chain cards.

Updated worksheet to include food chain.

Updated worksheet for drawing picture of the creature?

Key H&S

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.