

Session Outline

KS3 & 4: Inspiring Ecosystems

This outline is a general guide for what to expect during your session with us. Activities and session structure may vary depending on weather conditions and other circumstances.

National Curriculum links:

KS3 - Relationships in an ecosystem - the interdependence of organisms in an ecosystem, including food webs and insect pollinated crops. How organisms affect, and are affected by, their environment, including the accumulation of toxic materials. Genetics and evolution - changes in the environment may leave individuals within a species, and some entire species, less well adapted to compete successfully and reproduce, which in turn may lead to extinction. The importance of maintaining biodiversity and the use of gene banks to preserve hereditary material.

KS4 - Living organisms may form populations of single species, communities of many species and ecosystems, interacting with each other, with the environment and with humans in many different ways. Living organisms are interdependent and show adaptations to their environment. Methods of identifying species and measuring distribution, frequency and abundance of species within a habitat.

Learning Objectives	Session outline	Evaluation of Learners progress
Compare the features of different habitats Be able to survey habitats using a range of techniques Create a food web Explain the importance of biodiversity	<p>Students will survey a range of habitats depending on the site chosen from grasslands, ponds, woodlands and hedgerow.</p> <p>Activities – Chosen from below. Depending on time of year/location. Please let us know at the time of booking if you would like a specific focus from the options below.</p> <p>Food Webs – Students create food chains which develop into a food web. Discussion about the ecosystems and adaptations of the different species and what happens if a species becomes endangered or extinct. Discuss what changes in the environment may leave species less well adapted to compete successfully for resources such as food, water and mates.</p> <p>Surveying Habitats – depending on your requirements and the session location; can include grassland, ponds, woodlands, hedgerow.</p> <ul style="list-style-type: none"> -Record species diversity by using quadrats, transects, pond dipping to survey the species of flora and fauna and gather data from a specific area. - Discussion around biodiversity and factors affecting species population -Create food chains / webs out of the species found in this habitat. 	To include: Discussion with students before, during and after the visit. Completion of tasks, photographs which you may take for post visit discussions, displays and activities.

	<p>Guided Walk through woodland – Students find planted items to demonstrate how organisms are affected by their environment. We will show what The Parks Trust have done to increase biodiversity across MK.</p> <p>Pollination – Hamper of pollinated foods to show importance of insects in our food supply. Play an insect pollination game to demonstrate how pollination works.</p>	
Pre Visit activities	Post Visit activities	Relevant activity risk assessments
Explore examples of adaption and evolution Identify common bird species and their key features	Further analysis of data collected at site. Conduct transect count on school site and compare data with parkland. Sharing knowledge gained with rest of school e.g display Build a food web.	Generic Risk Assessment for Schools and Youth Community Groups