

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:		
<p>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.</p> <p>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.</p>		
Learning Objectives	Session outline	Evaluation of Learners progress
<p>Compare the features of different habitats</p> <p>Be able to survey habitats using a range of techniques</p> <p>Create a food web</p> <p>Explain the importance of biodiversity</p>	<p>Students will survey a range of habitats depending on the site chosen from grasslands, ponds, woodlands and hedgerow.</p> <p>Activities</p> <p>Discussion about the ecosystems and adaptations of the different species by constructing a food web.</p> <p>Surveying Habitat 1: Grassland</p> <ul style="list-style-type: none"> -Record species diversity by using quadrats to survey the species of flora and fauna and gather data from a specific area. -Create food chains / webs out of the species found in this habitat. <p>Surveying Habitat 2: Pond</p> <ul style="list-style-type: none"> -Measure the species of pond invertebrates and pond plants by taking part in a pond dip and water quality test. -Assess the water quality and clarity of the pond water -Create food chains / webs based on the species you found <p>Surveying Habitat 3: Woodland/ Hedgerow/ Stump garden</p> <ul style="list-style-type: none"> -Record species diversity by creating a transect and counting the species of plants, insects, trees, and birds within 2 metres of the line. -Create a food chain out of the species found for this habitat 	<p>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>
Pre Visit activities	Post Visit activities	Relevant activity risk assessments

<p>Explore examples of adaption and evolution Identify common bird species and their key features</p>	<p>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.</p>	<ul style="list-style-type: none">• LLNR site risk assessment• TPT-OL-008 Guided Walks• TPT-OL-002 Bug hunting• TPT-OL-010 Pond Dipping
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