

Session title	Invertebrate Safari	
Key question	How are invertebrates adapted to their habitat?	
Session description	Find and identify a range of invertebrates in our grassland. How have they evolved to survive in this habitat and how are they dependent on each other and their environment?	
Key Stage suitability	KS3	
Duration	1 hour	

Curriculum links	Curriculum for Wales Science and Technology Being curious and searching for answers is essential to understanding and predicting phenomena Progression step 4 - I can explain how the impact of our actions contribute to the changes in the environment and biodiversity. Progression step 5 - I can evaluate contemporary issues that affect the planet and biodiversity. The world around us is full of living things which depend on each other for survival Progression step 4 - I can describe the interdependence of organisms in ecosystems and explain how this affects their chances of survival. - I can explain how reproduction, mutations and the environment can lead to variation and adaptations within organisms which can affect their chances of survival. - I can explain the threats to the development and health of organisms and describe how the effects of these are reduced by natural defences, preventions and treatments. Progression step 5 - I can explain how variation of organisms within a changing environment leads to natural selection which drives evolution. - I can explain how biological processes and control mechanisms enable organisms to function, develop, reproduce and survive. - I can evaluate the factors which affect the development and health of organisms. - I can explain how prevention and treatment can support natural defence systems and enhance the health of organisms. Humanities Our natural world is diverse and dynamic, influenced by processes and human actions Progression step 4 - I can understand and explain how human actions affect the physical processes that shape places, spaces, environments and landforms over time. - I can describe and explain the distinctive features of places, spaces and landscapes at a variety of scales, in my locality and in Wales, as well as in the wider world, along with the processes at work in them. - I can describe and explain why spatial patterns of places, environments and landforms may change over time in my locality and in Wales, as well as in the wider world. - I can describe and explain how places, spaces, environments and landforms have changed over time and outline the processes that cause these changes in the natural world. Progression step 5 - I can explain and analyse the wide range of interrelationships and interdependencies between the human actions and physical processes that shape places, spaces, environments and landforms over time.
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	- I can give comprehensive explanations for the distinctive features of places, spaces and landscapes at a variety of scales in my locality and in Wales, as well as in the wider world, along with the processes at work in them. - I can give comprehensive explanations for the spatial patterns of places, environments and landforms at a range of scales and predict how patterns and trends may continue or change in the future in my locality and in Wales, as well as in the wider world. - I can give comprehensive explanations and analysis of how and why places, spaces, environments and landforms have changed over time.		
Learning outcomes	Most learners	More able learners	
	will be able to name at least fifteen invertebrates found in wetland habitats. will be able to identify at least four habitats, and three microhabitats, where invertebrates are found. will be able to explain how at least 3 invertebrates are adapted to survive in its habitat.	will be able to explain the similarities and differences between the adaptations of two related invertebrates that live in different habitats. will be able to name two invertebrates that live in different habitats during different parts of their lifecycle.	
Key vocabulary	Invertebrate Habitat Microhabitat Larva Lifecycle Insect Arachnid Antennae	Herbivore Detritivore Adaptations Exoskeleton Chrysalis Thorax Abdomen Camouflage	Ecosystem Mollusc Crustacean Gastropod Ecology Spiracles Exuvia Carnivore

Session Outline	Time
Learners are introduced to the centre, staff and volunteers running the session and the key question, explaining what we will be focusing on today.	5 mins
Activity 1: Which invertebrates live in this habitat?	
Prediction Stage – learners predict what invertebrates they think we will find in this habitat and begin to discuss why this is a suitable environment.	10 mins
Activity 2: Invertebrate hunt	
Learners hunt for invertebrates in the grassland area, collecting and sorting the invertebrates using the specified criteria.	15 mins
Activity 3: Identification	
Learners identify the invertebrates using an ID chart, including attempting to identify specific differences within a species e.g. common woodlouse and a pill woodlouse. Using a microscope, learners discuss how these invertebrates are adapted to their habitat.	15 mins
Activity 4: Wildflower meadow (in Summer)	
Learners visit the wildflower meadow to record different species of flying invertebrates. Learners discuss how these invertebrates are adapted to their habitat.	10 mins
Plenary	
Learners review what they have learnt and ask any further questions.	5 mins