Session title	Pond Explorers and Minibeast Safari
Key Question	How are invertebrates adapted to life in water and on land?
Session description	Dip our ponds and explore our grassland habitat. How do these habitats compare? Which invertebrates live in each and how have they evolved different adaptations to suit their habitat? Who eats who in pond and grassland food chains?
Key Stage suitability	Key Stage 2
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 1 ▪ I can explore the environment, make observations and communicate my ideas. Progression step 2 ▪ I can recognise that what I do, and the things I use, can have an impact on my environment and on living things. ▪ I can explore relationships between living things, their habitats and their life cycles. Progression step 3 ▪ I can understand how my actions and the actions of others impact on the environment and living things. The world around us is full of living things which depend on each other for survival Progression step 1 ▪ I can recognise that plants and animals are living things which grow. Progression step 2 ▪ I can recognise that what I do, and the things I use, can have an impact on my environment and on living things. ▪ I can explore relationships between living things, their habitats and their life cycles. Progression step 3 ▪ I can describe how living things compete for specific resources and depend on each other for survival. ▪ I can describe the features of organisms and recognise how they allow them to live, grow and reproduce for survival in their environment. ▪ I can explain the role of different organs and systems that enable plants and animals to live and grow. ▪ I can identify the threats to the development and health of organisms and recognise some natural defences, preventions and treatments. Humanities Our natural world is diverse and dynamic, influenced by processes and human actions Progression step 1 ▪ I am beginning to recognise the effects that I have on the natural world. ▪ I have first-hand experience of the natural world and am beginning to recognise places which are familiar to me. Progression step 2 ▪ I can describe how people and the natural world may impact on each other. ▪ I can recognise the distinct physical features of places, environments and landscapes in my locality and in Wales, as well as in the wider world. ▪ I can describe how and where some places and environments are similar, and others are different.

<table>
<tr><td></td><td colspan="2">
I can recognise the distinctive features of places, environments and landforms, and how these may change.
Progression step 3
I can describe and give simple explanations about the impact of human actions on the natural world in the past and present.
I can give simple descriptions of the processes that lead to change in the natural world.
Informed, self-aware citizens engage with the challenges and opportunities that face humanity, and are able to take considered and ethical action
Progression step 2
I am beginning to appreciate and care for living things and my own environment.
Progression step 3
I can understand the consequences of my actions and the actions of others, and how these affect local, national and global issues.
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<tr><td rowspan="2">Learning outcomes</td><td>Most learners</td><td>More able learners</td></tr>
<tr><td>will be able to name at least ten 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 one invertebrate is adapted to survive in its habitat.</td><td>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.</td></tr>
<tr><td>Key vocabulary</td><td colspan="2">Invertebrate
Habitat
Microhabitat
Larva
Lifecycle
Insect
Arachnid
Antennae
Camouflage
Carnivore
Herbivore
Detritivore
Adaptations
Exoskeleton
Chrysalis
Thorax
Abdomen
Tentacle
Ecosystem
Mollusc
Crustacean
Gastropod
Ecology
Spiracles
Exuvia</td></tr>
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Session Outline	Time
Introduction	5 mins
Learners are introduced to the centre, staff and volunteers running the session and the key question, explaining what we will be focusing on today.	
Activity 1: Which invertebrates live in a wetland?	5 mins
Prediction Stage – Learners predict what creatures they think we will find in a grassland habitat and a pond. Learners discuss whether there will be similar creatures living in both habitats or if they will be completely different.	
Activity 2: Minibeast hunt	15 mins
Learners hunt for minibeasts in the designated habitat collecting examples of each species using a pot and paintbrush.	
Activity 3: Pond Dipping	15 mins
Using nets, learners will dip in our purpose-built ponds to discover as many different species as possible.	
Activity 4: Observation and Identification	15 mins

Learners will identify the creatures using an ID chart. Learners will then observe some of the species more closely under a microscope and learn more about them.	
Plenary	5 mins
Learners will review what they have learnt and ask any further questions.	