

Session title	Pond Explorers	
Key question	How do organisms depend on each other and on their environment in a wetland ecosystem?	
Session description	With purpose-built raised ponds and specialist equipment, including electronic microscope and screen, WWT Martin Mere is one of the best places in the country to come pond dipping. In this session, students explore the interdependence of living things, including how organisms are linked through food webs.	
Key Stage	KS3	
Duration	1 hour	

Curriculum links	KS3 Science - Recognise the interdependence of organisms in an ecosystem, including food webs and insect-pollinated crops. - Understand how organisms affect, and are affected by, their environment, including the accumulation of toxic materials.		
Learning outcomes	Most learners will...	More able learners will...	
	be able to observe and describe an animal's structure in order to identify and classify it be able to describe how an animal's structure affects its adaptations for survival be able to describe how environments can change and pose dangers to living things, e.g. water pollution, and one way that we can measure it	be able to describe a wetland food web and identify herbivores, carnivores, omnivores and detritivores be able to describe two or more types of life cycle: ('complete' metamorphosis, e.g. midge, 'incomplete' metamorphosis e.g. water boatman, or no metamorphosis e.g. snails).	
Key vocabulary	Identify Species Environment Adaptation Prey Food web Pollution Exoskeleton Metamorphosis	Group Habitat Wetland Producer Predator Herbivore Invertebrate Endoskeleton Evolution	Classify Micro-habitat Survive Consumer Food chain Carnivore Vertebrate Life cycle Natural selection

Session Outline	Time
Introduction	5 mins
Learners are given a brief intro to WWT Martin Mere and are introduced to the key question.	
Activity 1: Observation	5 mins
Learners look in the ponds and are encouraged to think about what they see.	
Activity 2: Pond dipping activity	15 mins
Learners pond dip, using the equipment safely (as demonstrated by the leader).	
Activity 3: Follow-up activities in pavilion classroom	20 mins

Learners use our ID charts and pond 'ready-reckoners' to identify the animals in their trays. Learners view the animals on the screen and the session leader reinforces the ID Learners draw and name two or more animals on A5 card. Learners annotate their drawings and use our 'pond ready-reckoners' to annotate their drawings with appropriate adaptations and trophic levels for their animals.	
Activity 4. The food web.	10 mins
Food web activity, in either one or two groups, to reinforce the following themes: - how the animals are adapted to survive in the wetland environment. - how selected animals from their catch fit together into a food web. - the threats to pond creatures - how a change in the environment or in one species can affect all the animals in the food web	
Plenary	5 mins
Learners are invited to ask any further questions.	