

## 2 – How do creatures live underwater?

### **Overview:**

Suitable for KS2 and KS3. Learners will explore the natural pond dipping area to discover what species live underwater, they'll use the nets and water scopes to be able collect their samples to put into the trays. We'll then use identification sheets to identify the species we've collected and chart up our finds. Using our microscope, learners will learn the different habitats that are found under the surface, learn how species survive and how they co-exist. From this we'll explore some of the marsh areas to see what species may prey on those who live underwater.

### **Learning objectives:**

- To learn about the different creatures that live underwater in a pond
- To appreciate and enjoy the creatures and ponds
- To understand why and how creatures have adaptations
- To understand that pond creatures are part of a bigger eco-system that includes plants, birds and others
- To understand how underwater pond creatures live and interact with each other

### **Learning outcomes:**

- All learners will be able to identify at least seven creatures that live underwater in the pond
- All learners will be able to use pond dipping equipment safely and effectively to catch pond creatures
- All learners will be able to name three adaptations that help an underwater pond creature to survive
- All learners will be able to explain how some creatures interact in a pond
- Some learners will be able to explain an adaptation that helps an underwater pond creature to survive
- Some learners will be able to explain a basic food chain for some of the creatures
- Some learners will be able to explain what makes good habitat in a pond

**Key Words:**

Essential	Additional
Habitat Pond Freshwater Surface Camouflage Prey Predator Adult Larvae life-cycle Food-chain	Co-exist Carnivore Herbivore Cannibal Metamorphosis Exuvae Gills Thorax Exuvae Enzyme

**Session Plan**

**Equipment:**

- Collection Trays
- Nets
- Water scope
- Bowls and spoons
- Identification charts
- Whiteboards, pens and erasers
- Life-cycle boards and Velcro creatures

5 minutes	Welcome learners, outlines of the session and what we are hoping to learn today
10 minutes	<i>Thinking</i> ; Learners will split into groups and use whiteboards to write down what they think live underwater in ponds. Report back
20 minutes	<i>Pond Dipping</i> ; Split learners into groups highlighting what we aim to do during pond dipping. Learners will collect their samples from the ponds.
5 minutes	<i>Collection</i> ; From their sample trays, learners will collect creatures using spoons and bowls.
10 minutes	<i>Identification</i> ; Learners will identify their species using charts and mark down how many of each species they have found.
10 minutes	<i>Life-cycles &amp; Food-chains</i> ; work out which species we think will be predators, and which would be prey. Are there any we found that seem like larvae? Learners will work out the categories on their boards before feeding back.
15 minutes	<i>Fact show</i> ; Heading inside to the microscope, staff will select popular species and highlight how these species live under the water.
20- 30 minutes	<i>Grounds</i> ; visit the grounds and using identification sheets, locate the different birds and wildlife that may feed on the creatures we found under water.
10 minutes	<i>Feedback</i> ; what species have we learnt about that have interested the learners, report back what they have learnt. Bring session to a close.