



Herts and Middlesex



Wildlife Watch

Pond Dipping

Background information

Pond dipping is a great way to get children thinking about the diversity of life and to understand what goes on in one ecosystem, in this case a pond or river. It allows you to see the range of life under the water which you don't normally get to see. It also offers the chance to try out invertebrate sampling techniques while understanding the need to treat these creatures with care.

Activity objectives

This activity teaches children how to find, identify and record a variety of invertebrates.

Pond dipping is a good activity for all ages and can be adapted depending on the age group or key stage. For younger children and KS1, they don't need to identify what they catch – it is just fun to look at all the creatures in the pond. Older children and KS2 can follow the identification keys and can even invent their own.

What you will need

1. Somewhere to pond/river dip!
 2. Wellies – if you are going river dipping!
 3. Fine mesh pond nets – one per group.
 4. White trays – one per group.
 5. Magnifying pots or clear plastic pots and magnifying glasses.
 6. Plastic spoons.
 7. A small plastic aquarium (optional).
 8. Minibeast keys (e.g. "Freshwater Name Trail" fold-out chart from the Field Studies Council).
 9. Worksheets to record your findings (see additional sheet 5a) or notebooks.
 10. Antibacterial hand gel or soapy water/paper towels for hand washing.
- ** See links overleaf for details on where you can buy the kit.



Now turn over...



for further instructions!



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How to pond dip

1. Split the class into small groups and give them each a net, tray, magnifying glasses, pots, plastic spoons, a minibeast key and worksheet.
2. Explain what everything is, how to use it and what they are aiming to find. Also explain the importance of returning everything they catch back to where they found it.
3. Carefully fill the white tray half full with clear water from the pond, ready to put your findings in.
4. Gently move the net through the water without hitting the bottom – to avoid a net full of pond sludge!
5. Place the net into the tray and turn it inside out to allow the creatures to swim out.
6. See what you have caught and identify them using the minibeast key, recording them on the worksheet.
7. Try sweeping the net at different depths and in different parts of the pond to get a range of minibeasts.
8. To get a better look, carefully transfer the minibeasts using the plastic spoons into a magnifying pot or clear plastic pot and use a magnifying glass.
 - ** Make sure the pots are half filled with water first!
9. If you want to hold onto some creatures for longer, fill your aquarium half full with pond water, put in a bit of vegetation and some stones for cover and transfer them in.
 - ** Make sure this is kept out of the sun and don't leave the minibeasts in there for too long before returning them to the pond.
10. Once the groups have identified what they have caught, carefully return all the minibeasts back into the pond.
 - ** Be very careful when moving the minibeasts! Some of them are quite delicate so need to be looked after gently.

How to river dip

1. Once you have found a safe, shallow and accessible river, wade in wearing wellies to about ankle deep.
2. Get the children to work in pairs – one gently stirring up the gravel and stones using their feet, with the other holding the net vertically in the water downstream to catch the minibeasts dislodged from the bottom.
3. Follow the same process of identifying them in the tray and pots before returning them to the river.



Where to buy your pond dipping kit

www.nhbs.com

www.gbnets-uk.com

www.field-studies-council.org/publications





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Pond Dipping

Points to consider for working safely and responsibly continued...

On the day:

- Check the area again on the day of the activity to make sure there have been no changes or new hazards.
- Do a safety talk and demonstration for both children and assisting adults before the activity starts – this should set boundaries and ensure safe use of equipment.
- Make sure health and safety measures are in place.
- Monitor the activity as it takes place to ensure that it continues to run safely.
- Ask the children not to pick creatures up out of the water by hand and warn them to avoid hand to mouth contact.
- Make sure that the children wash their hands immediately after the activity and before eating or drinking.
- Explain that animals (including invertebrates) should be treated humanely and handled carefully.
- Ensure that animals taken from the wild are returned to the place from which they were taken.



Information for Teachers

National Curriculum Links – Science

KS1 POS Observe closely using simple equipment. Identify and classify. Gather and record data to help answer questions (use simple features to compare living things, decide how to sort them into groups, collect and record simple data, talk about what they have found).

Y1 POS Identify and name a variety of common animals, identify as carnivores, herbivores, omnivores. Describe and compare the structure of common animals (use the local environment to answer questions about animals and their habitats).

Y2 POS Explore and compare the differences between things that are living, dead and have never been alive. Describe how different habitats provide for the basic needs of animals and plants and how they depend on each other. Identify and name a variety of plants and animals and their habitats. Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain. Notice that animals have offspring which grow into adults.

Lower KS2 POS Make systematic and careful observations, take accurate measurements, record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Report on findings (talk about criteria for grouping and classification).

Y3 POS Animals need the right amount of nutrition, they cannot make their own food, they get nutrition from what they eat.

Y4 POS Recognise that living things can be grouped in different ways. Explore the use of classification keys to group, identify and name a variety of living things in their local and wider environment. Construct and interpret a variety of food chains, identifying producers, predators and prey.

Upper KS2 POS Record data using classification keys.

Y5 POS Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. Describe the life process of reproduction in some plants and animals.

Y6 POS Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics (use keys to identify some plants and animals in the immediate environment). Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.