



Section 6

Embedding care for our outdoor spaces into our experiences

6.13 Water in our outdoor space

Why this matters

- Water is precious. To make it safe to drink and use, it has been processed. Before it returns to a river or other water source, it is processed again, to remove effluent.
- Using lots of water puts pressure on our watershed and the habitats upstream from where we live, affecting wildlife and farming.
- By increasing the amount of rainfall our site can hold through planting and using water storage features we lessen the impact of high rainfall and reduce flash flooding. The flow of storm water can be part of a rainy play experience.
- When using paint, detergents and bubble liquid, ensure these are biodegradable and non-toxic.

Building upon prior learning

A group of children are often found where water exists! Observe their interactions with water, the environment and each other. It's the starting point for sustainable thinking and acting.

Children often assume there is unlimited amounts of water, and so awareness-raising is needed. With interested children, consider:

- What water can be found and where in our outdoor space?
- What sort of water features are children drawn to? Which are left alone, unnoticed or ignored?
- Who or what else needs water in our outdoor space?
- How do other species use water?
- Do we have any creatures that are living in water, e.g. in a pond?

- Where does water go?
- On a rainy day, what happens to water landing in our outdoor space?
- Do we have features or places where water is soaked up by plants or trees?

Use the above to document children's understanding and interest. They can be involved in taking photos, creating drawings and thinking about their own need for water as well as other species.

Reflective thoughts

- What's the range of water experiences all our children access? Is this sufficient to develop their conceptual understanding of water as an element and as ecosystems such as ponds, streams and the sea that need cared for?
- What messages are we giving about water and its value? Is this a human-orientated message or more universal to include all species?
- Do our children have opportunities to broaden their experiences such as paddling, canoeing, learning to swim and to learn how to be in and around water? How can these be offered safely and in line with local and national guidance? Get further advice from your local authority outdoor education team.



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Using less water

I wonder how we can use less water.

Could we:

- 🗨️ Carry and transport water without spilling any. What advice can we give each other?
- 🗨️ Learn how to turn a tap on and off.
- 🗨️ Monitor our usage outside? For example, by using canisters of water.
- 🗨️ Use the leftover water in our trays and containers for watering plants.
- 🗨️ Have collection tubs at the foot of water walls to re-use the water.
- 🗨️ Collect rainwater in a water butt. Ensure the lid is secure and can't be accessed by a child. Position and secure it safely. Empty and clean if the water becomes stagnant.
- 🗨️ Attach rain chains to guttering to collect rainwater. Search online for creative examples.
- 🗨️ Ensure our drains, pipes and guttering on our buildings are kept free from debris.
- 🗨️ Small scale solar fountains re-use water and fascinate many children.

Storm water management

During and after heavy rain or snowmelt, surface water increases. Outdoor spaces that absorb runoff help reduce flash flooding. There are small-scale ways of holding and using rainwater and purifying the runoff such as:

- Rain gardens - dips containing bog plants or ones that can tolerate damp conditions. They collect and filter runoff, absorbing up to 30% more than a lawn. Use native plants and pollinators as a wildlife habitat.
- A **living roof** grown on the top of sheds or shelters.
- Living walls cover a wall with growing plants. Pockets of soil or plant pots are used all the way up.
- Planting trees, ground cover vegetation and vertical planting on fences and walls.
- Removing the asphalt and replacing with more absorbent surfaces. Only do this with landowner permission.



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Water for wildlife

Wildlife needs natural sources of water (not from a tap). We can offer:

- Flat, shallow dishes for bird baths – empty and clean regularly.
- Small ponds and wetland areas. These can be in raised beds on asphalt. Adding stick and pond plants enable wildlife to climb in and out of the pond.



Find out more

- **Out to Play** Section 6.4.7
- SEPA – **Scottish Environmental Protection Agency** is a useful starting point for a range of activities about looking after water supplies
- Bird baths and water butts – check out the **RSPB website**
- Establishing wetlands - **Gardener's World** and the **Royal Horticultural Society** have a step-by-step guides
- **Plantlife**
- **Eco Schools Scotland**
- **International School Grounds Alliance** have water conservation and quality explorations for all ages
- **World Water Day** is 22 March, every year

6.14 Inland water margins

See also the **6.16 Beach visits**

Why this matters

Ponds, streams, rivers and lochs are part of our natural heritage. Think of the hours of fun to be had playing beside a burn: damming its flow, skimming stones and messing about.

There are invasive aquatic plants and animals that spread easily. If you enter water or go pond or stream dipping then do the following:

- **Check** your equipment and clothing after leaving the water for mud, aquatic animals or plant material. Remove anything you find and leave it at the site.
- **Clean** everything thoroughly as soon as you can, paying attention to nets, boots, and areas that are damp and hard to access. Use hot water if possible.
- **Dry** everything thoroughly before using elsewhere. Some invasive plants and animals can survive for two weeks in damp conditions.
- **Check-Clean-Dry: Stop the Spread.**

Building on prior learning

- Find out who knows about and has experience of playing in or near water locally.
- Children may also have relatives who fish, undertake water sports, go wild swimming or who spend family time together near a lake, stream or beach.