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me OUTSIDE here!



Creative STAR
Learning Ltd

Exploring Water Outside



Ideas, suggestions and things to consider

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COVID 19 UPDATE : This document was created prior to COVID-19 pandemic. The fast-paced changes to local and national guidance means that **you will need to double check at your own setting, local and national level what is okay and not okay to do or have outside.** Much of what is suggested can be easily adapted with a little bit of creativity and imagination. Also many things can be mitigated by handwashing before and after an activity such as water play. The issue seems to be cross-infection risks in water trays (tables). Either ensure each child has their own water supply and/or keep to flowing water experiences where the water can drain away. There is no guidance about puddles or playing in the rain or visiting ponds, streams, etc in your local area, so enjoy what you can do safely and with care, rather than focusing on what you can't.

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Introduction

Water play works well in lots of outdoor spaces. It provides a sensory experience all year round and the learning happens across all curriculum areas, beyond the narrow changes of state in science or investigating the weather. Make the most of naturally forming puddles, nearby gentle streams and other water forms that are suitable for your children to access. The experiences of water can stimulate language, foster communication, aid physical and social development and help children thrive outside... it can indeed be water of life!

Water is a daily feature of many nurseries indoors, yet outside the experiences can be considerably diverse and different. The reasons for this are mainly around the interplay between water and other elements, e.g.

- The weather. Water changes state with the outside temperatures. This comes in a variety of forms outside: rain, snow, ice, puddles providing endless diversity even in an artificial space.
- The seasons. Experiencing warm water on cold days and vice versa can stimulate curiosity. Looking at the weather linked to the seasons.
- Other media. Mixing water with mud, sand, adding plant material, etc.
- The larger space: Water can be positioned high up in a canister, low down in a splash pool, move through guttering and so on. Outside the movement and flow of water can be explored in depth. Transporting water is a key experience.
- Exploring experiences of water beyond your outdoor space such as ponds, the sea, a local stream or river. This can help children make sense of our world and develop the conceptual understanding needed for understanding texts and vice versa.
- The opportunity for bigger, better, wetter and messier experiences than can happen inside.
- There are important messages to be had through our use of water and how to use this precious resource sustainably.
- Wild water experiences that improve the biodiversity of your outdoor space and make it all the better for learning, play and wildlife.
- Connections need to be made between our need for water as well as non-human species: plants and animals – that water is essential, life-giving and part of the natural world.



Sustainable and safe routines around water

Water is a precious resource. 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 and make it safe. Most of the water in the world is saline and not suitable for drinking.

Children do not usually ask about where water comes from and often assume there are unlimited amounts of water available.

- Using a picture book can help explain some of the more complex ideas
- Draw children's attention to where water comes from within the outdoor space. For example, you may have an outdoor tap or bring out canisters of water to use. When it is raining, help children follow the path of a raindrop onto the ground or moving into a puddle or drain.

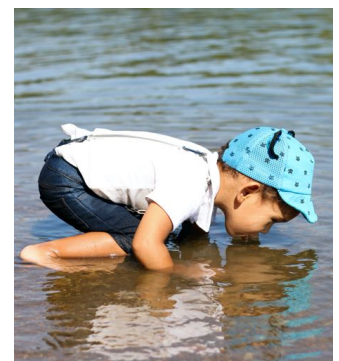


Positive ways to help save water and energy

- Teach children how to use water with care:
 - How to transport water without spilling any
 - How to turn a tap on and off and to ask for help if they cannot do this yet
 - Not leaving water to run whilst doing something else
- Have a finite amount of water available. For example, have 2 x 10 litre canisters of water available for a session and once it has gone, it has gone. Alternatively, work with your children to monitor the number of refills and try and reduce the amounts over several weeks until children have learned how to manage with less water
- At the end of each day, the water in trays and containers can be put in watering cans for watering plants rather than being poured down the drain
- Even in the winter, hot water is not always necessary. It is useful to observe evaporation on freezing days. Tepid water, slightly above air temperature is more than enough to provide the feeling of warmth.
- Collect rainwater in a water butt. Whilst many settings choose not to use this for water play, it is good for gardens and wildlife. Ensure the lid is secure and can't be accessed by a child. Check the water butt is safely positioned so it won't topple over.
- Attach rain chains to guttering to collect rain water <https://bit.ly/2SDlxfY>
- Have collection tubs and troughs at the foot of water walls so the water can be re-used within the children's play.
- Checkout the Eco Schools website – there's a focus on water <https://bit.ly/2ySzwHq>

Thinking about safety

- Look at the surfacing around your water zone. It is best to have a non-slippery surface. Bark or wood chips can be put down as measure to mitigate this.
- Do your children know how to be safe around water? How are you helping them learn this? What measures need to be taken by all staff to ensure the safety of children around water?
- Are your children suitably dressed for water play? They need wellies and waterproof outer layers.



Changes of state

Observing the changes of state from steam (gas) to water (liquid) to ice (solid) and this depends upon the temperature of water. Make the most of cold winter days to explore and investigate ice and snow. Winter naturally lends itself to exploring snow and ice. However undertaking similar activities on hot summer days can be a useful contrast.

- Have containers ready for children to fill with water and leave out overnight when you know the temperature is going to be below freezing.
- Putting hot (but not too hot) water outside in a bucket to observe the steam rise
- To find water which has frozen outside, such as puddles and to explore these – will they break if I poke them with a stick? What if I carefully stand on a puddle. Can I lift up ice?
- Watching ice left in the sun melt. How can this be monitored or measured?
- Watch a kettle boil. Watch what happens. Use the warm water to make a drink, under supervision. This can happen on a fire outside or use warm water from a flask
- Breathe on a window pane and see what happens. Breathe out through our mouths on cold, frosty mornings and watch our breath freeze. Can we make clouds with our breath?
- Pour a little hot (but not boiling) water on the ground on very cold days and watch what happens
- Let children freeze ice cubes and other interesting shapes. Pop these in two glasses, one filled with hot, the other with cold water and predict what happens.
- Create nature ice decorations. Freeze flowers, berries and plant material in ice with a loop of string. Hang up outside once frozen or add to a water tray to see what happens <https://bit.ly/2TdfPDI>
- Undertake experiments with rock salt scattered on ice cubes and a dash of food colouring. This is particularly effective when undertaken in a transparent tube/gutter pipe and the colours fall down the tube.
- Does ice always float? Is it possible to make it sink?
- Freeze water around a tea light so that the tea light is surrounded by ice. Colour the water and watch the tealight make the ice sparkle. Float on a shallow puddle or in a water tray on a dark day
- Put ice into the water tray and watch what happens to it during the course of a session. Have ice cubes in trays outside for a comparison. Which melts first and why?
- Does a big block of ice take longer to melt than an ice cube? What about freezing both?



Children often love the translucent properties of ice. There is also the need to explore how to shatter ice and accepting that once it breaks, it breaks. The sheets of puddle ice are perfect for this.

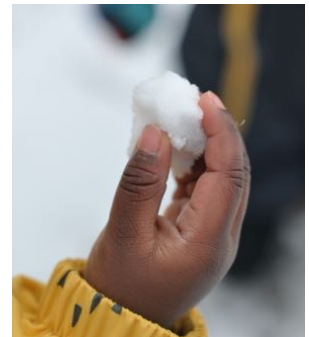
Exploring snowy conditions

As soon as snow and freezing temperatures are forecast, gather together resources and be prepared for some wonderful spontaneous. Think big, think miniature, think imagination and sheer creative manipulative play! The physical experiences help with developing muscles for mark making and the conditions underfoot can help with balance and co-ordination.

Get your resources ready-to-go in advance

You could do some extra freezing of water to make ice, if you are not sure it is going to be cold enough outside. Handling ice requires a lot of dexterity, bravery and determination. Useful resources include:

- Natural food colouring
- Warm water – good to have in an insulated canister with a tap so children can freely access it.
- Spray bottles
- Squeeze bottles (washing up liquid type)
- Range of paint brushes of different sizes
- Ice cubes and trays
- Acrylic mirrors
- Shallow baking trays, muffin trays and other containers likely to be found in a mud kitchen
- Salt in single pouring pots (but use with care as salt can damage plants)
- Felt tip pens, old card
- Syringes and pipettes in a range of sizes
- Ice scrapers – ask for donations and get a variety
- Stencils – use coloured water in bottle sprays to create patterns
- Little pieces of natural materials commonly found outside



Slush kitchens. Have bowls, containers and tools for mixing so children can make their own slush puppies, fried ice and enjoy slush and snow. Don't forget mixing rhymes such as: *Slush in the snow. Slush in the snow. Stir it. Scrape it. Mix it. Bake it. Slush in the snow. Slush in the snow.*

Make snowballs. Children have to scoop the snow and pack it into a ball which is wonderful hand, wrist and finger work. Throwing snowballs uses shoulder muscles and develops core body strength. Then there is the dexterity required to shake and remove the snow that ends up in all the collars and wrists and other cracks in one's clothing.

Play with syringes. They have a push/pull motion which is often easier for small hands than a spray bottle. This appeals to children and adults of all ages. Great for artwork in the snow, creating targets and a range of activities, especially when coloured water is available.

Printing and stencil work with a range of objects. Enjoy pressing containers, natural materials and any found items into the snow to see the imprint made. Can you guess which print matches which item? The reverse of this is to spray coloured water over the items and then remove them to see the outline left. Talk about the size of the objects and how much space they take up on the ground.

Freeze lolly sticks and ice cubes made with natural food colouring added to the water. These can be used outside on snow, or cream coloured cloths and towels to rub and see the colour leave a mark.

Leave mirror tiles in shallow water out overnight in frosty weather. Then wait and watch the effect as they melt. What happens when you move your finger over the melting surface?

Magic pictures. Make a picture using felt tip pens drawn on card or paper. As soon as it has been created, turn it upside down rub the picture into the snow. It should disappear, like magic!

Freeze coloured water in shallow baking trays. Using fine salt in a single hole pourer, use this to create patterns on the salt. Then watch the effect. Add coloured ice cubes to create a miniature ice world.

Take a stick for a walk on freshly fallen snow. Then retrace your steps and see if the patterns created tell the story of what the stick got up to. This works well, if children like the book [The Snowy Day](#) by Ezra Jack Keats using what Peter got up to as an inspiration.

Hold a mini curling competitions. You need a puddle with a smooth surface. Find some chuckies or wee pieces of gravel. Scratch a ring at one end and take turns to flick rocks into the circle. The person with the most nearest the centre wins. Another alternative it to hold a Subbuteo football match on ice with chuckies.



Snow and ice change the landscape. They make any space different and more exciting. Think about how you can offer outdoor experiences that support your children to explore and move and learn experientially about the properties of water.

Mark making with water

Use water to paint on walls, pavements and tarmac

- Use feathers collected on walks dipped in water.
- Add natural food colouring to the water, especially on snowy days.
- Add biodegradable washing up liquid for a bubbly effect. Use straws and blow to mark make over different surfaces.
- Set up a pendulum – mark making and the movement of water and pattern making all wrapped up
- Have a range of brushes and rollers available in a variety of containers.
- Show children how to wash windows correctly and carefully

Create water trails and patterns

- A milk bottle with a hole in the bottom where water can leak out. Children can transport these by holding.
- Attach to a piece of string or guy rope to a leaky milk bottle and hang up so it becomes a pendulum.
- Tape a leaky milk bottle to the back of a trike as a “leaky” exhaust.
- Use a hose and spray water to observe the patterns which can be made.
- Use watering cans to mark make... have different sizes or rosette. A cheap version can be to purchase a range of water rosettes that fit on bottles of water, or heat a needle over a match and then poke holes in the lids or bottoms of bottles
- Swirls and patterns in water with sticks. Look at the ripples of drops and how the water responds to the movements we make. Make disappearing messages or symbols by “writing” in the water.
- Dip rope and string into water and look for the patterns made when these are dragged along the ground. Is it possible to work out where a person has travelled to by following their thread?

Car washing

- Seek advice from car enthusiasts – children and adults - about the best ways to wash a car. Write this down or take notes during the interview. There may be parents or staff who really know their stuff.
- Find members of staff who are willing to have their car washed and make a list of cars to be washed.
- Make a photo checklist of materials needed for the job
- Note down any special requirements, e.g. wheels, mirrors, windows, number plate, doors to be washed.
- Make up a receipt for the car wash.
- Use a range of car washing tools: windscreen wiper rubber blades, cloths, sponges, tyre scrubbers.
- Wash tyres and look at the different prints made by the different tyres when rolled across the playground.
- Wash any bikes or trikes afterwards. Repeat the above process for looking after bicycles.



Investigating how water moves

The impact of gravity on water is significant and a source of fascination for many children.

- What shapes does water make? How can we find out?
- How does water move? Experiment through the use of downpipes, hoses and guttering to see the impact of gravity.
- Have ice cubes in water for using on guttering. Does ice float down on top of the water?
- Investigate where water moves to outside. Spill water on the ground and follow its path. Predict what will happen to it and where it will go before doing this. Afterwards, challenge children to see if they can do anything to change the natural flow of water. Compare this to measures taken in local communities, e.g. flood prevention approaches, the containment of river banks, etc.
- What is the longest guttering, hose piping, tubing that children can put together to make water flow across the outdoor space?
- Explore flow by creating little channels in mud or sand and gently pour water to observe how and where it flows. On grass or asphalt, try using tin foil to create little streams. This is a good collaborative project between nursery children and older buddies.

Gardening and sensory explorations of water

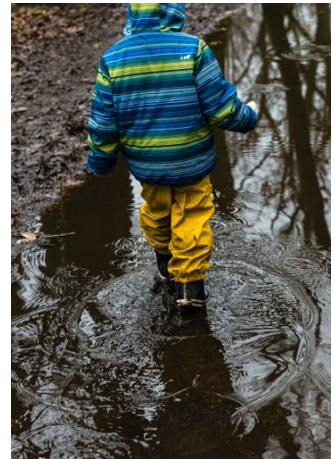
- Water plants using different sizes of watering cans and water bottles with rosette heads
- Add water to mud, sand or clay to make soup
- Paint with runny mud and clay
- Make rose perfume and other fragrances by crushing leaves, petals and flowers in a pestle and mortar and adding water
- Walk barefoot on grass and feel the dew. Wonder how the grass became so wet without raining. Good to do in late spring.
- Go searching for spider's webs, plants and other objects that hold dew.
- Will plants grow without water? How can we find out? How do plants grow in deserts?



This Czech nursery clearly values the act of watering – there are plenty of watering cans of different sizes. Why not put a call out for watering cans and enjoy comparing the range of sizes and shapes that are donated to your nursery?

Investigating puddles and still water

- Where do puddles form outside? Can children make them bigger or smaller somehow? On sunny days, draw chalk around the edge and watch the water disappear. Where does it go?
- Can we make puddles on different surfaces? Which works best?
- Which materials soak up water the best? Investigate with different materials outside, e.g. cloths, paper towels, sponges, etc.
- What happens when we brush a puddle?
- Swirl a stick around very quickly to make a whirlpool. Add a Lego man and see what happens...
- On a hot day, draw a line around the edge of a puddle on a hard surface with a stick or a piece of chalk. Go back a while later and see if the puddle has shrunk. If you do this every hour you can keep drawing around the puddles. Draw funky lines and patterns between the rings. If you only have puddles in natural places, then use pieces of string to mark the edges of the puddle. Decorate with natural materials lying nearby between the pieces of string. Does the size of the puddle affect the speed at which it shrinks? Is there anything you can do to speed up the process of evaporation?
- Invent a puddle song and dance to do around a puddle. For example “The Hokey Cokey” song where you put your right foot in, your right foot out, etc.
- Grab an umbrella and get those puddle dance routines and rain stomps perfected. Find out more about gumboot dancing.
- Try and splash all the water out of a puddle. How long does it take? What tactics work best?
- Drop a flat stone into a clear deep puddle or bucket of water. Watch it sink. Now find some smaller stones and see if you can get one to land perfectly on top. Is there any particular size or shape of stone which works best for this activity?
- Try finding ways of stepping through a puddle without your feet touching the water.
- Have a good sniff of a puddle. How can you describe its smell? Is it possible to change the smell of puddle water in some way using only natural materials?



The joy of riding a wheeled toy through a puddle – such a different sensation and a new challenge for some children.

Developing a water wall and water play areas

When creating water play features or space, look for where puddles form and the drainage of your outdoor space so that you don't inadvertently flood your cloakroom or create a major stream down an access path.

Water walls are a useful way of investigating the effect of gravity on water. Sadly, a lot of water walls are fixed affairs which do not enable children to move and manipulate the loose parts. Try to avoid this scenario other than for your youngest children. Why do fixed components limit children's play? What can you provide instead of this?

Wooden lattice water walls

Use wooden lattice and attached guttering, hoses, bottles etc. with Velcro or shockcord. Avoid cable ties as this makes the fixtures permanent. Cosy sell the beautiful child-friendly lattice <https://bit.ly/2EIQE7q>. However if you have to do, packaway play then flexible lattice is an option. Be aware these have little nails in them, so require daily checks and you may want to cover the sharp points with electrical tape or similar. It can be good to have a discussion about this with your children so they know and understand the hazard. This type of lattice may not be okay for very young children or those who may not see or understand the hazardous nature of the wee nails. An alternative is to make your own wooden A-frame or similar structure.

Pop up water walls

Children can make this with support from an adult. It is an ideal opportunity for them to use a mallet. In addition to the 1.2 x 1.8m tarp you need:

- 20 (or more) large snap 'n' tap eyelets <http://bit.ly/2U79POV>
- A lightweight mallet
- Pair of scissors
- Several black ball bungees <http://bit.ly/33gsQct>

Each child decides where they wish to place their eyelet. The flat part goes under the tarp. The curved part goes on top of the tarp and match up. Make a cross in the tarp with the scissors. The child then whacks the eyelet with the mallets until it clicks together. Trim the edges of the hole using the scissors.

Once you have twenty holes, the ball bungees can be threaded through some of the holes. These can be moved about as needed. Attach the tarp to a fence or between two posts and pop in some guttering, pipes and hoses into the ball bungees. Remember to put buckets or planters below the guttering to catch the water for re-use.



Pallet water walls

Use pallets. By drilling holes in the centre of each piece guttering you can make a “seesaw” type of wall. These need to be secured either firmly to a robust fence or wall or use fence posts sunk into the ground to hold it in position. Think about its placement on site carefully to avoid inadvertent access to roofs or whether it could be perceived as a fire risk if sited too close to a building. Check in advance with your manager or head teacher.



Water on wheels

Use a shopping trolley or cart on wheels with holes where tubing, funnels and hoses can be attached. This can be moved inside and out if you are setting up from scratch. Some children love transporting, so to being able to wheel a water feature around can be a huge hit in some settings!

Progression of experiences

- Ideally you want a mix which enables a progression of experiences and challenge.
- Begin with fixed simple walls for your youngest children
- Add in simple cause and effect items like the orange water holder in the photo below that has a simple up and down rod at the bottom that releases and blocks the water.
- Move on to seesaw guttering (where things are attached in the centre and can be wiggled)
- Introduce bungee cord to enable your children to add and remove items with ease
- Support you children to make from scratch once they are considerably older.

Remember that your idea of a wall and what is effective may be different from that of a child. They do not have the need for the ambitious constructions often seen online.

Have a look at this blog post that explains the thought and intention behind the water play area in the photo below: <https://creativestarning.co.uk/developing-school-grounds-outdoor-spaces/developing-a-water-play-area/>



Tweak to transform the play that emerges

Once an area is created, simple tweaks can keep the play going and this can be done **with children's input**, e.g.

- Move the splash pools – where do your children think they should go?
- Change the materials – what would your children think would work?
- Change the size or number of the buckets – do your children need more or less buckets? What about the capacity of the buckets? Are other containers needed and if so which ones?
- Change the angle of the water ramp by moving it up and down the shelves. Can your children predict what will happen to the flow of water?
- Cover the ramp with bubble wrap? What else could work? Why could bubble wrap be so much fun.
- What little things can be added to the area? For example, what would happen if a giant sponge was added to a splash pool.
- Does the guttering have to go on the wall? Where else could it be used?
- Can we set up a pulley to transport water around this space – is a horizontal or vertical one the most fun?
- What about setting up a pendulum so we can swing water and watch the patterns made?
- What would happen if we used a tarp as a giant incline?

Providing sufficient water when you don't have an outside tap or water butt

- 10-litre canisters with a tap at the bottom are a good way to provide water. The trick is to hang them on a fence or secure them to a bench using super strong Velcro. This prevents them being moved and emptied. Many children enjoy learning how to control the flow of water and want to help fill them up in the morning.
- Larger canisters can be too heavy to lift and hang up.
- Warm water is more pleasant on cold days.
- Always have a bucket or container underneath the canister so that water is captured for re-use.



Splash pools



This is a quick approach to creating miniature pools for water play at ground levels using tarp and tyres. You can make single splash pools or put several together. They are generally quite challenging to tip over, so the water tends to stay put – unless it is pumped out. Have a look at this blog post for more information: <http://bit.ly/39R19CL>

Splash pools are a quick and cheap method of providing water for children to have personal experiences of water. They can play outside them, sit in them, stand in them and so the play possibilities are high. And at the end of the session, it is fun tipping them out by moving the tarp in different ways.



Water pumps and holders

Children enjoy the cause and effect of water pumps and this one is particularly efficient. The children have to work hard to get the water out, but it is immensely satisfying for them once they have got the hang of using one: <http://bit.ly/33iwwU9> . Another cheap resource that also helps young children explore water flow is a bucket water holder: <http://bit.ly/2qN1UeQ>

Water ramps and inclines

Guttering, hoses and pipes are well known approaches. Exploring different types of ramps and inclines adds to the variety and keeps the play going. Experiment with the following:

- Corrugated PVC plastic – both vertically and horizontally
- Waterproof materials including tarps – transparent ones are particularly interesting
- Putting a 10-litre water canister at the top of a slide – ensure that children can't slide down but the water flows instead – and put a planter at the bottom to catch the water for re-using.
- Rolling up a camping or yoga mat vertically and securing with Velcro to make a flexible large tube.
- Adding bubblewrap of different sizes to the above.



Homemade sprinklers and water fountains

Plastic soda/water bottles are useful for water play. With care, heat the sharp end of a needle. And poke it through the bottle top. Do this several times in each bottle top. Fill up with water and enjoy the squeazy water play. These bottles can also be inserted upside down into pot plants so they can be watered during the holidays. A posh version is a spa tap www.spatap.com which can also act as a pendulum

Add in pulleys

There is a joy to being able to move water up or down a vertical pulley or along a horizontal one... after all the worse thing that can happen is a soaking. In the background of this photos of a spa tap you can also see a pulley system ready for transporting water or anything else.

Dry Streams

Dry streams are structures that support water flow during wet weather or when water is allowed to trickle out at the top. They usually involve creating a stone and concrete structure – some are specifically designed to follow the natural flow of water through a space or to capture run off. Ideally they need stones within them so that children can use it like a real stream for altering and blocking the flow of water or for floating things down it. For more information, have a look at this blog post.

<https://creativestarning.co.uk/developing-school-grounds-outdoor-spaces/play-features-that-use-stones/>

Water for wildlife

Improving the biodiversity of your outdoor space is immensely important. An outdoor space that has abundant species of plants and other living things, is one that provides richer play and investigation opportunities for your children. It also is an active contribution to mitigating climate changes. Even a concrete jungle can be naturalised by creating habitats¹. Consult your local wildlife experts – countryside rangers, local wildlife education officers, parents who like getting outside and so on. Often grants² can be sourced for bigger projects, but most improvements cost little more than an investment of time and love.

Water features are an essential element of a biodiverse space. Birds and other animals will come and visit to drink and clean themselves. Water creatures will begin to populate ponds. Wetlands are brilliant for plant life. Below are some options to consider that will make a positive difference. These have been extracted from Aberdeen City's *Mud, Mess and Magic: A Guide to Naturalising your Outdoor Space on a Shoestring* document.

Please remember you need a maintenance calendar for your outdoor space and that most of the jobs can be undertaken with children during the time they are in your nursery. Start small and grow your experience, year-on-year.



Wild water sources

This section considers natural sources of water, that are replenished by rain rather than from a tap. Whilst tap water may be the main source of water for play purposes, wildlife needs natural or wild water sources that are free from chlorine and other additives that are used to make water safe for people to drink.

Examples include:

- Bird baths
- Puddles
- Water butts

Learning, play and wildlife value

Water play is an essential feature of a natural play space. Children value water for investigating and exploring. They can also experience the delight of watching birds drink and bathe. During the winter months, children can witness changes of state and how water can appear in different forms. Birds and other wildlife need rainwater to survive. It is important for drinking and bathing.

Possible starting points for children

- Children notice birds in or near their outdoor space drinking and bathing in puddles and other water sources.
- Children enjoying puddle play and looking for puddles outside.
- Children wondering how birds live and what they need in order to survive.

¹ RSPB and other wildlife reserves often have features displayed that will work in urban environments and concrete jungles. Have a look at this blog post: <https://creativestarning.co.uk/developing-school-grounds-outdoor-spaces/a-wonderful-wildlife-garden/> for doable examples and this one about a healthy, natural bird feeding area <https://creativestarning.co.uk/developing-school-grounds-outdoor-spaces/a-bird-feeding-garden/>

² Creative STAR have a grant page which we try to keep reasonably up-to-date <https://creativestarning.co.uk/grants-outdoor-learning-and-play/>

What can we do to safely create more wild water sources in our outdoor space?

Bird baths

Birds need large shallow dishes for bathing and drinking – the equivalent of a fake puddle. These can be raised above ground level and situated in places where children won't accidentally trip and fall in. Make sure children are involved in creating them so they understand they are for wildlife and not for water play. In this situation provide a small world water play so that children can enjoy a similar experience.

Remember to top up regularly with a little water especially in hot weather and to break up any ice that forms during cold weather.



Puddles

In an outdoor space, the birds will soon learn to stay away when children are playing in the puddles. It's a shared space!

Water butts

Water butts and rain chains enable you to collect rain water for gardening and wildlife. Even a piece of guttering attached to a small shed will provide a water source. Whilst we may appear to live in a wet climate, human consumption of water puts pressure on the wider ecosystems to cope with our demand. Using more rain water and less tap water can help. If your children have daily access to a water butt, then it's unlikely to become stagnant. If your setting closes for a few weeks, then you can always empty and clean the water butt prior to the children using it again.

More information

The RSPB have instructions about making a bird bath and how to add a water butt on their website <https://www.rspb.org.uk>

Bog garden, marsh or wetland area

A bog garden is a wet wildlife area. It is a complement to a pond or a useful habitat in its own right. It provides a diversity of species that rely on wet, damp conditions.

Learning and play value

- It is a chance for children to experience a wider range of flowers and plants as well as the creatures that need this habitat. There are many plants which thrive in a wet area. Bees, butterflies and even a dragonfly may visit.
- Provide a range of magnifying glasses to look closely.
- Have sketch paper and pens, pencils or crayons for drawing what they can see.
- A few seats nearby may be useful for children to sit on to simply watch and enjoy what is happening in the bog garden.

Possible starting points for children

- Noticing there is a patch of mud that doesn't dry up and that's getting bigger!
- Seeing wetland areas when out and about on a walk.
- A prolonged bout of rain that's created lots of wet places in your outdoor space.

Creating a bog garden

- It is particularly good if you have a naturally occurring damp, wet or waterlogged place. Another option when creating a dry stream is to place a bog garden where rainwater can flow into it (tap water isn't good for wildlife). Have a look when it is raining heavily and find the places where the water gathers. Or look during the summer months and see which places never seem to dry out.
- Don't put a bog garden where children love to play, such as in a favourite mud patch or puddle. It is better that the bog garden is left alone to allow wildlife to flourish. However, if you have a growing wet muddy area, then planting up around the edges to prevent further growth and concentrate the children's play can be helpful.
- If you have an old pond which leaks, then making a bog garden is a good alternative to filling it in with soil.
- If you have mainly asphalt or wet pour surfacing, then make one in a raised bed or container.

What plants grow in a bog garden

Moisture loving plants include: Marsh Marigold, Common Valerian, Ragged Robin, Cuckoo Flower, Great Willowherb, Purple Loosestrife, Snake's Head Fritillary, Bog Bean, Globe Flower, Oxlip, Primrose, Meadowsweet, Marsh St. John's Wort, Marsh Betony, Marsh Cinquefoil, Lady's Smock, Hemp Agrimony, Creeping Jenny, Fleabane.

Time of year to create

Winter or spring - plant up in late April through May unless you are using container plants. Look at planting in groups of each variety but allow them to intermingle as they grow.

Maintenance needs

- **Winter or early spring:** General winter clearance which involves removing dead matter and putting it on the compost heap.
- **Summer:** Thinning any plant that is beginning to dominate the area. This involves pulling out the plant and putting on the compost heap or replanting elsewhere. It's worth letting parents and staff know if you have spare plants.

More information

- The Gardener's World have a step-by-step guide <https://bit.ly/2G32tYO> as do the RHS <https://bit.ly/2Pm7Em1>
- Plantlife have produced a Scottish leaflet that can be downloaded <https://bit.ly/2KXYOFF>

Ponds

A pond could be one of the best ways to encourage biodiversity in your setting. Ponds provide spawning grounds for amphibians - great natural pest controllers. Insects such as dragonflies and damselflies have their larval stages in ponds and countless other animals live out their whole lives in our ponds.

Learning, play and wildlife value

The educational value of ponds is considerable. The abundance of life that relies on ponds either as part of its lifecycle or as an essential source of water during hot dry weather means that there will always be something to see. There is a whole world of pond life waiting to be discovered during the warmer months of the year. Many different invertebrates live in ponds and this can help create a thriving wildlife

community. As a general rule, the bigger the pond, the better its wildlife and learning value. However, in many outdoor areas there may only be space for a mini pond.

Possible starting points for children

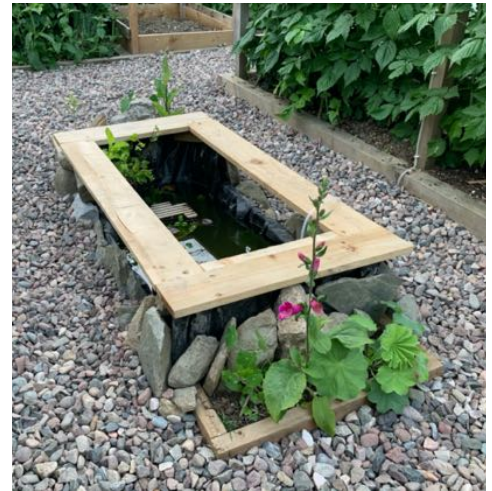
- Children finding a frog!
- Observing ducks and other birds that live on or near water.
- Visiting a local pond and observing creatures that live there.

What can we do to safely create a pond our outdoor space?

It is best to start small with a mini pond and to grow your pond with experience, wisdom and hindsight gained from managing it and supervising children around its use.

Go for a pond in a raised bed. It means that children will not accidentally trip and fall into it, even if it limits the access of wildlife.

Put a grid over the top. The children can help make this from willow so that they realise it will not hold their weight and should not be climbed upon. Seek advice from a wildlife professional about the correct size of the gaps as otherwise access could be limited for birds and mammals and can also trap them underneath.



If you are worried about supervision and access to the pond, it can be put in a place where it is fenced off and children can only access it with an adult present. Remember to put holes in the fence at the bottom to allow wildlife to enter and leave.

Ponds require oxygen so that the water does not become stagnant. You can install simple pump systems and with small ponds solar powered options are available. Having oxygenating plants growing in your pond can also help. Do not stock fish in a pond unless it's big enough, deep enough and you know how to properly care for their needs. Instead, visit the ponds in your local neighbourhood. Ponds also require an annual clear out. The debris from plant life that accumulates can be composted.

More information

- Froglife and several other wildlife organisations have excellent free resources online relating to pond creation, management and the benefits for wildlife.
- Creative STAR website has a pond post with lots of examples of school and nursery ponds: <http://bit.ly/2OVkIXE>



Exploring water beyond your outdoor space

Make the most parents, visitors and external providers

- Parents could be invited to add a comments or do a quick video interviews to talk about water is used at their place of work and how they value water.
- SEPA – Scottish Environmental Protection Agency <http://www.sepa.org.uk> is a useful starting point for seeing the range of activities which go into looking after water supplies.
- If you can find a plumber or person who works at a local sewage works or someone who knows about drains... these people can come and talk to any interested children. What is even more fun, is asking them to play with the children, e.g. to help set up a tap at the water play area and so on. Then it's hands on learning.

What water when

Encourage parents and carers to undertake water-based activities and investigations at home. You children and their families could keep a record of what water experiences happen in a typical day, e.g. tooth brushing, drinking water at meal times, bath time, watering plants, going swimming, etc. Talk about how much water has been used and its purpose, so that children realise how essential water is e.g.

- We wash our hands to keep them clean
- We water plants because they need water to stay alive
- We go swimming because it's fun.

Water experiences in your local area

Getting children out and about helps extend their conceptual knowledge, vocabulary, understanding of the world around them and much more! A child who has never seen the sea or a big river is missing out on core experiences. There is so much to be explore about water beyond your gate. Furthermore, parents can accompany children and learn about what's in their locality and can also advise you about places to go and things to do.

What happens to water when it rains?

Go for a water walk and look at where water can be found in the local area. This is the start of understanding how water moves through our ecosystems. This is especially good on a wet day where water can be seen pouring down pipes and into drains, exploring puddles and wondering where water ends up.

Look for evidence of water control measures outside. Good examples include guttering, drains, channels, flood protection measures, the landscaping at the seaside such as sea defence measures, etc.

If you are fortunate enough to have a stream or river within walking distance, then looking at the speed of the water flow and the volume of water during wet and dry times can be helpful. Remember to observe safely from a distance during flood conditions or if water is rising quickly.



Puddle jumping walks

- This is great to do during wet, rainy and dreich weather. It changes how children perceive inclement days.
- Think about the route which will provide you with the most puddles to jump in or over.
- Consider the clothes and footwear you will need to wear.
- At each puddle you encounter, decide whether you are going to: Jump over it; wade or splash through it; do something else
- Make a note of your decisions and which worked best. Become an expert in puddle jumping.
- Another challenge is to find lots of different sorts of puddles and to explore them.
- Your children make wish to take a measuring stick to check the depth
- Observe where puddles form and why?
- Look at the different sizes and shapes of puddles. If there are puddles close to each other then take photos so that afterwards you can discuss the similarities and differences between the puddles.
- There's no need to rush this experience. You may get no further than the puddle just outside your nursery. It works equally well to explore your school grounds if you are part of a school.

The state of water

It can be interesting to find and investigate examples of water in different states outside. Have a look for:

- Frost in the winter
- Condensation gathering on windows
- The water vapour of our breath on cold days outside
- Snow piled on top of vehicles
- Icicles hanging from roofs and gutters
- Ice-covered puddles... will they crack if we walk on them?

Compare and contrast this with what you find in your outdoor space or even inside!

Feed the ducks and other bird life at local ponds

- What food is okay for birds to eat? Check the RSPB website to find out more, as bread is not good for birds.
- Which birds are the greediest?
- How are waterfowl adapted to live on or near water?
- In spring time and early summer, enjoy looking out for ducklings.
- In winter, watch how bird cope with the ice.



Water life

It can be really interesting for children to look at and discover the animals which live in the water. It helps them learn about aquatic habitats and the variety and characteristics of creatures that live in or close to water. Your local wildlife organisation or countryside ranger team may be able assist you with this activity, if booked in advance. The times to pond or stream dip are between late May and late September.

However, it is important that you fully consider the welfare of the animals. The RSPCA has fieldwork guidance that should be followed: <http://bit.ly/2OA3IXb> This includes:

- Stress and injury that can result from mishandling and capture method of the animals.
- Stress to the animals of being removed from their habitat and placed in an unfamiliar environment.
- Disruption caused to the habitat and the animals in it.

Discovering frog, toad or newt spawn

In springtime, being able to see frogspawn is exciting as it changes week on week even before tadpoles emerge. It is important that your children learn to leave it alone and avoid water activity in the vicinity. Encourage your children to take photos and enjoy seeing the spawn develop through weekly visits. It could be a good stimulus to create a miniature pond or wetland habitat in your outdoor space.

Search out little streams

Little brooks or streams are places that can keep children occupied for hours. Think of the hours you may have spent as a child trying to dam a stream and channel the flow of water, with no other resources other than the stones nearby.

Exploring and playing in streams can help children learn water safety prior to experiencing bigger volumes or flows of water. You must ensure that you undertake a risk benefit assessment for all aspects of stream use, including the possible ecological impact of your time in or near the water as well as ensuring the children's safety and wellbeing. You will need to get to know your local stream intimately so you can read its state and when it's okay to access a stream, where and how.



Visit a local swimming pool

- The totality of the experience from arrival, using the lockers, accessing the pool and getting changed are practical life skills for children to learn, aside from learning how to swim and be safe around water. Not all children have this experience, owing to costs, accessibility, cultural beliefs and confidence of a parent.
- Your local swimming pool may have specific slots for local schools and early years settings where the public are not present. Check as this can be great if you have a session where you want to use it to engage your parents and have a different social experience.
- This activity is normally classed as adventurous. You must follow your school and local authority guidelines regarding ratios, risk assessments and expectations. Initially it can seem off-putting if the paperwork is extensive, but once it's all in place and you become familiar with the expectations, then it's worth it. You do not need to take a huge number of children all in one go. Find out which parents are interested and up for accompanying their child. It's an opportunity to develop friendships between families too.

Beach visits

If you are lucky enough to live within walking distance or a short journey using local transport, then make the most of this special place. The sights, smells, sounds, feeling and overall experience of a beach is like nothing else. Ideally if you can set up weekly sessions at your local beach, then you are giving children a chance to connect to the landscape and develop a sense of identity that can last a lifetime.

- Check with your local authority around visits to the beach. You may have to undertake training particularly around working with groups at the edge of water.
- If you lack confidence, then look for Beach School, coastal training or other forms of professional development. Understanding how tides work, what rip currents look like and being able to read your local beach and weather conditions help ensure your beach visits are as safe as necessary. Every beach is different and you need to get to know your one intimately.



Resources for exploring water

- This is not an exhaustive list but serves to illustrate why a careful choice of resources can lift the learning which takes place.
- As much as possible, re-use and re-cycle resources. Ask children and their families for donations. Look in charity shops. Ask local businesses. Have fun gathering.
- Think about the accessibility of the resources by children and staff. They need to be placed so that children can easily find them and return them independently after use.
- Listen to and involve your children in discussions about resourcing your water play. They may have some great ideas.
- Less can be more. Think of the hours of fun you may have had playing at a stream with only rocks to move about!

WHAT RESOURCE	WHY
Tuff tray	<ul style="list-style-type: none"> • It's a fake puddle and useful if you don't get much puddling in your outdoor space. Treat as a normal puddle. • Used for shallow water experiences such as wet small world play with the addition of stones, etc. • Put on table for middle level shallow water experience • Create hole for water flowing experiments in one. Make the hole the same size as a universal plug, so you can stop the flow if needed.
Plastic window box	<ul style="list-style-type: none"> • Collects water from a water wall for re-use – fits tight against a fence • Open-ended and easily moved around by children so water play can become more interesting.
Buckets: ranges of sizes	<ul style="list-style-type: none"> • Variety of sizes for collecting water, e.g. from a tap • Useful for transporting, tipping and pouring • Have a big dustbin or similar for transporting water and emptying into this container • Hoofproof buckets are particularly robust and also have small cuboid ones.
Tarp: range of sizes and colours. Transparent is useful but more expensive	<ul style="list-style-type: none"> • Water slides (larger the better) • Tarp and tyre splash pools https://bit.ly/2EoAgaN • For fake rock pools and puddles - put things underneath, around the edges, etc.- an extension of splash pools • Creating portable water walls (with rivets & ball bungees) • Hang at an incline for water to run down (especially transparent tarp). Good as a den on a rainy day or to observe frost on a winter day • Use like a parachute for water games https://bit.ly/2GSMjAV • Put at stretch or mid-height a tarp with rivets in the centre to channel water – tarp water fall • Create a hammock like set up on a slight incline to watch water flow at mid-height

<p>Paddling pools</p>	<ul style="list-style-type: none"> • Barefoot experiences • Immersive play • Big water experience • Links to home experience for some children
<p>Corrugated plastic sheeting (sand down the ends and duct tape)</p>	<ul style="list-style-type: none"> • Water flow down channels: racing little floating objects • Add bubblewrap to change the surface
<p>Water tray</p>	<ul style="list-style-type: none"> • Large experience for containing water. Put at different heights for added value and provide resources that invite transporting between the trays.

WHAT RESOURCE	WHY
<p>Moveable tiered trolley</p>	<ul style="list-style-type: none"> • So there is a moveable water station. Great for those setting up from scratch daily or who have children who like and need to move things about.
<p>Selection of ice cube trays, muffin tins and bricklaying moulds</p>	<ul style="list-style-type: none"> • Experiences arrays, counting and investigating 3D sculptures • Imprints and shapes left in the sand. • Exploring the concept of miniature • Putting outside filled with water when the temperatures drop below freezing
<p>Unwanted plastic boxes of different sorts from 50ml to 1.5l</p>	<ul style="list-style-type: none"> • Exploring capacity: comparing different sizes • Developing concept of conservation of volume • Does the shape of the container affect the amount of water it holds?
<p>A variety of 1 litre containers Have transparent ones and mark with a permanent marker pen the line to represent half the capacity.</p>	<ul style="list-style-type: none"> • Exploring conservation of volume • To begin to learn the concept of “half”
<p>Leave the labels on the containers so that children can find see how capacity is written (NB do you want healthy eating examples?)</p>	<ul style="list-style-type: none"> • Environmental print – letters, words, branding, logos • Experience of big numbers in a real life context.
<p>A thermometer</p>	<ul style="list-style-type: none"> • To measure and see temperature changes in combination with being able to feel the difference between warm, cold and freezing
<ul style="list-style-type: none"> • Range of guttering: lengths, colours, 	<ul style="list-style-type: none"> • Exploring the flow of water, problem-solving, thinking critically, investigations.

widths (be aware that bamboo guttering will need drying off and storing in a shed) • Guttering stands	<ul style="list-style-type: none"> • Useful for setting up channels and runways of water
Different sizes of: <ul style="list-style-type: none"> • Funnels • Hoses • Sieves and colanders 	<ul style="list-style-type: none"> • Pattern making including imprints • Exploring diameter, width and length • Filling, emptying, channelling the flow of water • Links with mark making • Creating water walls
Wheels: can be <ul style="list-style-type: none"> • Little plastic waterwheels • Bicycle wheels • Tyres Salad spinners A whisk	<ul style="list-style-type: none"> • Exploring rotation and the spray of water • Imprint: cause and effect of tyres dipped in water and rolled • Exploring bubble making
Water pumps – 3 types: hand held, the type you can attach to a wall or a big water barrel pump	<ul style="list-style-type: none"> • Exploring gravity and how water flows • Vertical transportation of water
Archimedes screw	<ul style="list-style-type: none"> • Exploring rotation and helical symmetry (a rotation plus a translation up or down the screw bit) • Transportation of water through turning mechanism
Ice cream scoops Different sizes of spoons	<ul style="list-style-type: none"> • Moving water and manipulating it in different ways
Range of brushes and rollers of different heights, widths, purposes	<ul style="list-style-type: none"> • Recording ideas, writing 'symbols' and mark making • Patterns, cause and effect
Rope, pulleys and hooks	<ul style="list-style-type: none"> • Exploring mass, height and scale • Transporting water up and down or across an outdoor space • Don't forget about pendulums and hanging a bottle of water up to be swung and to see the patterns that are made
Mirrors and mirror tiles (lightweight plastic or acrylic ones)	<ul style="list-style-type: none"> • Reflection and symmetry: put in the bottom of trays covered with water, e.g. a tuff tray • Exploring how water distorts images

<p>Car washing equipment:</p> <ul style="list-style-type: none"> • Brushes • Clothes • Sponges, • Scrubbers • Bucket 	<ul style="list-style-type: none"> • To experience washing bikes, trikes, and other wheeled toys • To wash a real car – it’s a brilliant experience for children. Follow it up with going to a garage to experience the car washing facilities there.
<p>General washing equipment including:</p> <ul style="list-style-type: none"> • A range scrubbers and brushes • An old washboard, if you can find one • A mud daddy³ or similar 	<ul style="list-style-type: none"> • To wash doll’s clothes, pans and pots from role play areas, etc. • To scrub down outdoor clothing that is muddy whilst children are wearing it (they clean themselves using the mud daddy and scrubbers) • Integrate into cleaning routines for outdoor equipment • Use biodegradable washing up liquid
<p>Water wall attachments</p>	<ul style="list-style-type: none"> • Velcro, shockcord, ball bungees and other fasteners to put up and take down items on a water wall.

Water features that provide a range of experiences

Feature	WHY
Puddle	<ul style="list-style-type: none"> • Exploring concept of width and depth (can I stand in it? Can I jump across it? Etc.) • How to make a splash with a stone or other object
Dry stream	<ul style="list-style-type: none"> • Exploring the flow of water and interplay with loose stones • Damming water and changing the flow • Experiencing impact of rain in the outdoor space
A real stream or run-off channels within your outdoor space	<ul style="list-style-type: none"> • Variety of sizes for collecting water, e.g. from a tap • Useful for transporting, tipping and pouring • Damming water and changing the flow
A pond	<ul style="list-style-type: none"> • Wildlife watching • Caring for plants and animals that live there or who visit
A bird bath	<ul style="list-style-type: none"> • Watching wildlife and learning about how to care for birds
Wetland area	<ul style="list-style-type: none"> • For the range of plants and insects that enrich the play, learning and wildlife value of your outdoor space.
Drains	<ul style="list-style-type: none"> • Wondering where water goes
Water wall	<ul style="list-style-type: none"> • Flow of water: building and creating on a vertical surface rather than horizontal, cause and effect

³ Mud daddy is a commercial brand of pet hoses that are brilliant for children to use. Not cheap but very absorbing and great for scrubbing down outdoor clothes prior to removal www.muddaddy.co.uk

Developing your water play

The process of development is standard across all zones and aspects of outdoor provision. The cycle below is kindly adapted from ones suggested by Julie Mountain of Play Learning Life⁴, the International School Grounds Alliance⁵ and Learning through Landscapes⁶. All of these organisations have great resources and lots of experience at supporting schools and early learning and childcare settings to develop their outdoor provision.



1. Baseline - where you are now?

This involves observing children play and considering the 5Rs: routines, resources, rights of a child, responsibilities of adults and re-imagining the outdoor space.

2. Vision – Where do you want to be?

Develop a vision of what water experience could be like. Re-imagine the space. Re-think the responsibilities of adults. Consult and involve all your stakeholders in this, especially the children. This includes thinking about what the impact or outcome will be.

3. Plan – How will you get there?

Create an action plan: who, what, when, possible problems and solutions

4. Change – carry out the actions

Make the changes, get everyone involved

5. Observe the impact and celebrate the success

Re-photo, re-observe children using the space. Create a maintenance schedule and calendar to keep the area loved and cared for. Backlink routines, resources and approach to the curriculum.

⁴ <https://www.plloutdoors.org.uk>

⁵ <http://www.internationalschoolgrounds.org>

⁶ <https://www.ltl.org.uk>

Where are you now?

What are children’s experiences of water in your outdoor space and beyond: reflect upon current opportunities...

Evaluation	Comment, including evidence, where needed
<p>Does your water play embed the curriculum design principles? Have you provided sufficient challenge, breadth, depth, progression of experiences and learning, and personalisation and choice? Is the experience coherent and relevant for each and every child?</p>	
<p>Do you have a defined area or space for water play? If not, do you need one and where would be the best place if you do, bearing in mind you may need to experiment with what works best?</p> <p>Remember to consider the need for drainage. The best time to look is on a very wet day where you can see where water flows in your outdoor space. Find out where puddles always form.</p>	
<p>Look at the resources section in this handout and audit your current water resources.</p> <p>You may need a breadth and depth of diversity of resources. Conversely, see what happens when the minimum of resources are available – what is the impact on water play?</p> <p>Are there resources that you have elsewhere in your setting that you have not considered in relation to water play?</p>	
<p>What do children like doing with water outside? Undertake the Capturing the children’s experiences at the water zone activities to observe how your children are playing with water.</p> <p>Are you effectively covering the experience and outcome associated with water, including benchmarks?</p> <p>Is this deep play – are the children engaged and involved in their play here? Or do children visit briefly and move on again?</p> <p>Think about whether you need to do some specific observations using the Leuven’s Scale of wellbeing</p>	

<p>and involvement, especially for children who may not normally engage with water play or who you feel may benefit specifically from developing your water provision.</p>	
<p>What routines are in place around water in your outdoor space?</p> <p>Are the children able to collect and transport water they need outside?</p> <p>Are there any limitations and how can you overcome these?</p>	
<p>In what ways are literacy, numeracy and other areas of the curriculum embedded into the water experiences? Is your current offering repetitive or does the learning develop and extend over days in this part of your outdoor provision.</p>	
<p>In what ways do you facilitate off-site experiences of water, such as visits to a beach, exploring a gentle stream, visiting a river, finding out where puddles form and where rain falls and goes to?</p> <p>Natural experiences of water may benefit some of your children in particular. Can you think of any who may be particularly interested?</p>	
<p>What are children's experiences of water at home? Do you know? What support or guidance for parents do you provide on water play experiences?</p>	
<p>Why water? Why do we provide this for children? Reflect upon the purpose of water play.</p>	

Any other thoughts, feelings or reflections... write them down.

Capturing the children's experiences at the water zone

Set aside time to observe children outside to inform your planning. By doing this, you are ensuring children's opinions are being considered and acted up. You need to ensure that you undertake a range of approaches. The observations back up the discussions. It is not sufficient simply to have a quick discussion with a group of children. This will not give you a full picture of water play in your setting.

- Snapshot of play: Take a photo every every hour during the course of two or three days: who is at the water zone and what are they doing. Do this at clear time intervals, e.g. 9.00am, 10.30am, etc. Reflect on what you see. Is the area being well used? Are there gaps when children are not using it that have a pattern? You can repeat this after making the changes to compare how children are using the water.
- Asking a group of children to draw themselves at the water zone and scribe their experiences. Discuss what they like **to do** there?
- Creating a story book or floor book around how the provision is being developed.
- Undertake observations using the Leuven Scale of Involvement.
- Any other approaches you normally use to elicit the use of a zone or specific space outside.

If you have children who are very young and are not able to voice their opinions or you have children with EAL or ASN then it is still important to observe what they do with water outside. For example, does a child:

- Engage in repeated experiences of water, even when a range of options is offered?
- Avoid the water play and never chooses to go near it?
- When presented with a shallow bowl of warm water and cold water, express a preference?
- When provided with simple props for water play, do they use them? What do they most enjoy using?
- Enjoy puddles. This could be walking through them. Exploring how deep the puddles are, in relation to their wellies, using container for pouring and mixing activities or something else?



Involving parents and other stakeholders

Invite parents to a stay and play session and ask them to spend time at the water zone.

- What did they do?
- What did they think worked well at the water zone?
- What do they feel would be even better?
- If we had the best water play area in the world, what would it look like? What would children be doing there?

Put a notice on your parents' Facebook group or other social media outlet.

- Ask parents for their memories about playing in water. What did they enjoy as little children?
- Why do they think investigating and exploring water matters?
- What experiences of water play would they want for their children?

If social media is not an approach used in your setting, then ask an agreed number of parents directly. This could be at pick-up or drop off or by organising a brief meeting near to one of these times.

Juliet has a collection of water images that can be used for discussions with children and parents – please email her for these and provide an email address that will allow WeTransfer.com to be used (some councils block this process).

Warning – Avoid the Disney World Scenario

When discussing improvements with children, parents and other stakeholders, it is important to focus on experiences and what children like **to do** outside.

If you ask “what do you want” then most people respond by listing resources and you end up with everyone wishing it was a Disney or Water World theme park.

When someone asks the impossible such as “a water slide” based upon a visit to a swimming pool, there is no need to panic. Acknowledge the idea and wonder how we can create something similar with materials that we already have. For example, a tarpaulin pegged to the ground can provide a water slide

Creating a vision

By articulating what experiences children need around water, and talking about what is excellent water play everyone can develop their understanding of the benefits of water play.

- Use the ideas from your parents through the consultations already undertaken.
- Use the observations of children and also their ideas about water. Have they had a sufficiently broad experience of water? Perhaps a visit to a beach or river or other body of water is needed.
- What are children’s understanding of water? What do they need to know and understand about water?



Start collecting quotes, ideas for extending water play, useful information about water and photos. You can use a range of ways of documenting this, depending on the age of your children and the nature of your setting. For example, it could be:

- A large display board with information and children’s work posted at child’s height with information above for the adults.
- A story or book that captures the key thoughts. This could also be a digital version such as Book Creator.
- A slide show or PowerPoint display of ideas and possibilities
- A series of posters or sketchnotes.

Making a plan and implementing it!

This documentation can also include the plan of what you are going to do! As much as possible do this with your children during their sessions. Model the process of making changes and use the opportunity for the children to learn, e.g.

- Helping to find and sort resources – this is a data handling challenge
- Creating signage and the labelling of equipment and finding a place for it to be – this is functional writing.
- Organising the layout of a water area – problem solving, developing an understanding of space and shape.
- Designing and constructing semi-permanent features such as a water wall – technology
- Problem solving, e.g. if you are short on resources, what do they suggest or if the water is too heavy to carry from the sink to the water butt. Perhaps some children keep tipping water out or using it up too quickly. Children can often have suggestions that can be tried.
- What needs to be built into your maintenance plans and daily/weekly/monthly checks to keep the area as safe as necessary?
- What items will need cleaning and when – incorporating this into your cleaning schedules.

Reflecting on the process

- The implementation phase is often about trial and error and tweaking things until you have workable systems.
- As you develop the routines, ensure you reflect on the learning that is happening and backlink the core learning to your curriculum.
- A useful approach is to return to the original audit or assessment of where you are and see how much your answers and thoughts have changed.
- It is also useful to consider how much you have personally learned from the experience of improving your water play. We need to learn, grow and develop our professional practice as much as our children do.



The water wall in the photo is the original design at Fort William Stramash. The children have to climb up the back of the fence to reach the home-made bottle funnel. The orange and yellow plastic pieces are old marble runs. In the second version, more guttering was screwed on in the centre so all the pieces moved like seesaw. A more challenging water wall was created that still involved height at the other side of this play area. Have a look at this blog post: <https://creativestarning.co.uk/developing-school-grounds-outdoor-spaces/an-interactive-palette-play-station/>

Finally

Within this website and during any of my training sessions you will find lots of ideas and accompanying photos that contain elements of risk. It is important that you consider all the suggestions on a case-by-case basis to determine whether they are appropriate for the developmental age and learning needs of your children.

You also need to ensure that you are suitably competent and confident to ensure the routines, resources and environment are as safe as necessary. Remember to undertake a risk-benefit assessment for anything you feel needs it, be this using tools and ropes, experiencing fire, climbing trees and other experiences involving heights, moving heavy objects, working off-site, near water and so-on. Creative STAR Learning is all about enabling great outdoor practice but every educator and establishment needs to undertake this within a framework of safety.

Likewise it is important that wherever you are working you follow the land access laws of your country . Being respectful of others, leaving no trace of your presence and considering the impact of your practice on the environment are all part of your responsibilities as educators.

About Juliet

Juliet is an educational consultant who specialises in outdoor learning and play. Previously, she was the head teacher of three schools ranging in size from 6 to 277 pupils. Juliet has worked at a national level since 2008 writing case studies, documents and doing behind the scenes work to help shape strategy and support for schools and ELC establishments. This includes heading up the team that wrote the Education Scotland document, *Outdoor Learning: A Practical Guide for Scottish Teachers and Practitioners* (2011), co-authoring *Loose Parts Play – A Toolkit* (2016 & 2019) and being part of the Scottish Government strategy group that created *A Play Strategy for Scotland* (2013). Most recently, Juliet contributed to *Out to Play* (2018), a Scottish early years document supporting practitioners to develop off-site provision in local greenspace.



Juliet is in heavy demand world-wide for her practical training. Since 2008, she has been one of the key people behind the scenes that has worked with Scottish Forestry staff to develop the SQA Forest Kindergarten award.

She is the author of two award-winning and best-selling books: *Dirty Teaching: A Beginner's Guide to Learning Outdoors* (2014) and *Messy Maths: An Outdoor, Playful Approach for Early Years* (2017). Her website, Creative STAR Learning is a source of information and support with more than one million visitors in the past four years. Juliet continues to work directly with staff and children in many ELC settings in the North-East of Scotland looking at practical ways to achieve excellent outdoor practice.

Please get in touch if you wish to know more about the training and support she offers to ELC settings and primary schools. Email: info@creativestarning.co.uk

See you on the outside! - Juliet@CreativeSTAR