

EARLY LEVEL PEDAGOGY IN PRACTICE PAMPHLET

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Sand and Water Play

Sand and water play are viewed as core early years play provision. But do your sand and water areas provide sufficient challenge and varied learning opportunities?

Why Do Children Play with Sand and Water?

Sand and water is often described as sensory play. The different feel of the materials stimulates the nerve endings on the hands and provides sensory feedback, which for many children is an enjoyable sensation. This type of stimulation increases arousal in the brain and can aid concentration, which is one reason these are important materials to support learning.



Sand And Water Support Development and Learning in a Variety of Ways

Everyone working in your setting should know why sand and water are provided and understand the benefits of this type of play and its impact on learning. It is also important to consider your own role in supporting sand and water play.

Personal, Social and Emotional Development

- Sand and water can be soothing and relaxing. They can help a child to calm themselves.
- Children can play with or alongside other children.
- Sand and water are open ended and support play and learning at all ages (though extra care should be taken when using with babies and toddlers)

Physical development

- Develops fine motor movements
- Develops hand-eye co-ordination
- The weight of sand and water can help to strengthen muscles in the upper body and legs

Language development

- The open-ended nature of sand and water and the variety of resources that can be put with them, offers lots of opportunities for the adult to develop vocabulary.
- Early language – adults need to name objects and simple actions such as ‘splash’.
- Developing language - adults model increasingly specific language such as ‘full’, ‘empty’, ‘submerge’
- Talking well – adults offer opportunities for children to describe what they are doing and use planning and problem-solving skills

Literacy

- Sand and water can be used for mark making – i.e., sticks in shallow dry sand, brushes in water outside, making marks on a steamed up window
- They are malleable materials and can support children to represent their ideas and develop symbolic thinking
- Play can be linked to a variety of books.

Mathematics

- Resources such as bottles with lines on them, short and long sticks/straws, 5 ducks with numerals on their bases, different sizes of scoops and loose parts can support mathematical learning.
- The role of the adult is important helping children to see the mathematics within their play.
- Simple adult-initiated games may lead to children absorbing them into their self-initiated play.

Science

- Exploring the difference between dry sand and wet sand or of ice and water
- Measuring rainfall, noting where ice forms, watering plants
- Investigating how water flows, or how sand needs to be wet to form shapes

Expressive Arts

- Sand and water are creative materials and children are learning about using different media
- Sand and water may be used in small world or role play

What Are the Key Features of High-Quality Sand and Water Play Provision?



Interactions

"Enabling play pedagogy is a skilful job. Interactions are central and key to successful play pedagogy." Realising the Ambition, 2020:46

It is important that we interact with children in ways that will support their learning. This may involve playing alongside children, playing with them, offering ideas and suggestions, commenting, and engaging in sustained shared thinking.

Some questions to consider:

What strategies are adults using to draw children's attention to vocabulary and concepts including number, shape, size and measures? Are they modelling, commenting and questioning in a way that is scaffolding learning effectively?

- ⇒ Are the length and quality of interactions sufficient to allow children time to think, respond and comment?
- ⇒ Do children appear to enjoy and be challenged in their play?
- ⇒ Do children repeat actions, ideas or language that have been modelled or introduced by the adult?
- ⇒ How long are children spending engaged in their play?



Experiences

Every variation in how you provide sand and water has the potential to influence a child's play, thus encouraging them to develop new skills and ways of thinking.

Do children have access to both wet and dry sand? Is there an area that is large enough for them to get into? Can they feel the sand with their feet as well as with their hands?

It is important to consider the developmental needs of the children in your setting and how you might support children who do not enjoy this type of sensory play to extend their experiences.

Some questions to consider:

- ⇒ Why are sand and water being provided?

- ⇒ What are the intended benefits for individual children and groups of children?
- ⇒ Why have you organised the sand and water in this way?
- ⇒ What skills, knowledge or language are you hoping children might gain today?
- ⇒ Do you have a plan as to how you will use sand and water to support learning?
- ⇒ Is the sand and water play set up in ways that will help children to engage and learn from it? For example, is there enough water in the tray, and are the tools provided developmentally appropriate for the children?
- ⇒ Do children have sufficient time to explore during their play?



Spaces

Sand and water trays have their place but are just one way in which children can experience these materials. Think about how provision outdoors can be different to provision indoors. The ideal is to have a range of sand and water opportunities.

Carefully chosen resources can give children more challenge as well as help them see new play possibilities.

Audit resources regularly and check their condition. Prevent the build-up of too many 'samey' resources that take up space whilst not really earning their keep.

Observation is key to following children's interests and supporting and extending their play.

Potential resources (these are just for starters and are not comprehensive)

- Buckets, trugs and saucepans to experience sand and water at different depths
- Paddling pools, baby baths and large trays provide opportunities to experience sand and water with the whole or parts of the body.
- Different sizes of containers grouped together support exploration of different volumes.
- Channelling water and sand through chutes, gutters, sand timers etc to observe how they flow.
- Small quantities in trays, or containers alongside small-world play.
- Taps, water butts and water carriers with taps to explore and control the flow of water and fill containers such as watering cans and buckets.
- Opportunities to transport water and sand in different containers/carriers i.e., watering cans, wheelbarrows, buckets
- Spray bottles to spray and squirt things. These can also develop the muscles of the hand.

- Different sizes of scoops, spoons, spades provides opportunities to explore mathematical concepts of size and amount.
- Containers with different neck sizes to vary the level of challenge involved in filling and emptying.

Adapted from Penny Tassoni in *Nursery World*, September 2019

Self-Evaluation

It is important to self-evaluate your provision on an ongoing basis so that you can be sure that you are meeting the needs of all the children in your setting.

Some questions to consider from a child's perspective

- ⇒ Can I access the resources easily?
- ⇒ Do I have opportunities to use open ended and natural resources?
- ⇒ Are there resources to extend my learning in mathematical ideas and use related language, e.g., weight and measure, size, shape?
- ⇒ Do I have opportunities to explore and experiment with the different properties of sand and water: wet, dry, frozen, etc.?
- ⇒ Do I have access to wet sand, dry sand or both? Am I allowed to mix sand and water?
- ⇒ Can I access a variety of tools to help me with my exploring of sand and water, such as: scoops, spades, funnels, tubes, different sizes of containers, etc?
- ⇒ Are the resources suitable for the wet sand [moulding, patternmaking etc] or the dry sand [pouring, filling etc]?
- ⇒ Do I have opportunities for role play/storytelling at the sand and water trays?
- ⇒ Do I have an opportunity to talk to an adult about my experiments?
- ⇒ Does the adult inspire me to try new things?

Health & Safety

It is important to provide the right type of sand as some may not compact well for making sandcastles and builders sand can stain. If sand is too dusty then particles may be inhaled, so adequate ventilation is important.

Useful information for managing outdoor sand areas can be found on the Rospa website
<https://www.rospa.com/play-safety/advice/sand-play>

Water trays should be emptied and cleaned daily. It is particularly important to ensure that water is not allowed to collect and stagnate as this can create a legionella risk. Outdoor areas are at a higher risk of this as rainfall can collect in objects.

At the time of publication, current Scottish Government Guidance on reducing the risks from COVID-19 in Early Learning and Childcare Settings states:

"Water and playdough should be replaced daily or, if groups of children change during the day, on a sessional basis.

Sand need not be changed on a daily basis and standard cleaning and changing protocols should suffice if good hand hygiene is carried out prior to and following use of the sandpit. Standard cleaning and changing protocols should be implemented in the event of any visual contamination of the sandpit or its contents."

All Scottish Government COVID-19 guidance and supporting documents on reducing the risks from COVID-19 in Early Learning and Childcare Settings can be found [here](#).

Case Study One

Sand and Water Play at Woodlands Family Nurture Setting, Paxton Nursery & Methilhaven Care Home Nursery (Fife)

Context

We have 3 settings which support the learning of children from 2-5 years of age. Each setting is unique in terms of its physical location, building layout, number of staff and children. We have a shared Headteacher and Principal Teacher across all settings which supports us to ensure there is consistency of high-quality training, provision and interactions across all 3 settings. Our collaborative approach enables us to share learning between colleagues, across settings and cluster wide to identify and drive forward improvements which have a positive impact on our children and their families. As well as our Lead Officers, our staff also take on lead roles within their own settings and have the opportunity to work together with colleagues across the 3 settings to plan and implement initiatives which are part of our Improvement Plan.



We all join virtually to deliver some aspects of initial training which are relevant to all settings. It is important for us to deliver a shared message and promote the standard for each setting

to work within as they tailor initiatives to meet the needs of their own setting. All practitioners are valued in being part of the improvement journey.



What does Sand and Water play look like across our settings?

Our sand and water provisions are inviting and tempt curiosity and enquiry. We value the myriad of rich learning across the curriculum that can take place, which is why both are part of our core provision, and all playrooms have both sand and water on offer indoors at all times

throughout the session. Separate sand and water trays are age appropriately sized. Our youngest children often take comfort in exploring sand and water when they first come into our Early Entrants 2-year-old rooms as this is a rich sensory experience which they find therapeutic.

Both sand and water trays are located close to a water supply, to allow children to develop independence skills when filling and emptying the water tray and to encourage children to be able to add water to the sand when exploring its properties. Children are encouraged to use the mop beside the water tray and the brush and pan beside the sand to help clean up the spills that occur naturally as part of their exploration and discovery.



Quality resources are carefully selected to be enticing and allow for open-ended play. These are readily accessible to children. Sand tools tend to be wooden and include tools to move, scoop, manipulate and sculpt sand. There are different containers which allow children to explore capacity and moulding. Water tools tend to be made from stainless steel and encourage children to develop concepts of water movement including pouring, filling, emptying etc. There are a variety of containers, tubes, funnels and pipes to further support and challenge learning and skill development. We include resources that would be found in homes, such as metal colanders, ladles, different sized spoons, small teapots etc. We also

have a variety of open-ended resources such as shells, corks, stones etc which children can use to extend their play and learning.



Learning is limitless and is supported by the skilled interactions of our practitioners. We can pose open-ended questions to promote discovery learning and challenge cognitive understanding. We model language to extend vocabulary, support social skills and promote learning across the curriculum. Children have opportunities to make progress in their

learning, develop co-ordination, fine motor skills, be creative, use their imagination, problem solve and work together to name but a few!

As part of our daily responsive planning, practitioners record observations and interactions to support and extend learning through sand and water play. Children's voice is evident in our planning, and this is reflected in our next steps. We are skilled in recording observations of children to track progress across the curriculum. Resources are added to support and challenge specific learning targets identified through observations of children. In doing this, practitioners can scaffold learning by modelling, commenting and questioning to encourage children to discover and make connections.



We are fortunate to have large scale sand areas in some of our outdoor spaces. The learning here doesn't mirror the learning indoors. Instead, it offers children further opportunities to develop learning concepts and skills such as gross motor development, co-ordination and cooperation while they explore on a larger scale. The outdoor environment provides a natural opportunity to explore changes in properties of sand and water when they are affected by the weather. These opportunities occur naturally, and learning is supported by our skilled practitioners who inspire our children to take notice and ask questions about the world around them.

Jillian McIntosh (Principal Teacher) in consultation with Coral Muir (EYLO), Emma Jex (SEYO)

Case Study Two

Beanstalk Family Nurture Centre, Fergus Place & Aberdour Road Annex (Fife)

Context

Our service comprises of 2 separate buildings, one of which is well established within the local community and the other new build has only been in operation since August 2021. We have worked hard to ensure the core values, pedagogical approaches and ethos of Beanstalk is carried throughout all playrooms within our service.

To ensure our high standards and quality are maintained, the management team which comprises of Head Teacher, Principal Teacher, Depute Head of Centre, Early Years Lead Officer and 5 Seniors are committed and invested in the training and development of the staff team and environment. Staff skills and qualities are recognised as our most valuable resource for impacting on positive outcomes for children and families. Therefore, we regularly monitor practice, using environment rating tools and other key documentation to support reflective practice. A culture of self-evaluation and reflection within the staff is embedded through a coaching approach, regular opportunities for professional dialogue, regular staff development and training sessions and sharing practice across different settings (pre-Covid restrictions) for self & peer-evaluation. Staff have a clear understanding of our shared vision, values and aims which are regularly reviewed with all stakeholders.



What does Sand & Water look like across our setting both indoors and outdoors?

There is a child-led approach across our provision that nurtures curiosity, discovery and explorative opportunities throughout. Sand and water are key parts of our core provision given the rich learning opportunities they provide across the curriculum and are available in all playrooms and outdoor areas. Sand and water provisions are near each other and where possible to a water supply for ease of filling/emptying and to encourage experimentation between both materials to allow children to explore the differing properties of the sand when dry and wet.

The variety and accessibility of resources and how these are organised is key to ensuring independence and opportunities for problem solving, discovery and exploration. The use of open-ended resources such as different utensils along with natural materials such as shells, stones and sticks sparks children's imagination and creativity. Different sized/shaped wooden



and metal items are used as core provision for both sand and water play. We organise these resources carefully to promote mathematical concepts and allow for comparative mathematical language. Alongside open-ended resources, intentional promotion is used to highlight specific learning linking to children's interests or particular mathematical concepts e.g., Size, shape, volume, number etc.

Thought is given to the differences between the experiences we offer indoors in comparison to outdoors for both sand and water play. The outdoor area allows for sand and water opportunities to be experienced on a much larger scale and in a more natural environment. Children can access water from a variety of sources – tap, hose, water butt, puddles

etc. The different properties of water can be explored through the changing seasons and different weather. Water can be more safely and readily transported outdoors by children (although this is encouraged indoors, and mop/brushes are available to allow children to clean up after themselves). The sand tray outdoors is on a larger scale providing opportunities for children to immerse themselves in a fuller sensory experience and to develop their gross motor skills, co-ordination and co-operation skills. The larger scale allows for other resources to be offered which would not be suitable for the smaller scale sand tray e.g., large diggers, trucks, winches, pulleys etc. Sand and water experiences are observed carefully by staff and understood not to be static provisions but areas with vast opportunities for learning. Through quality interactions and sensitive interventions, staff will extend learning and interests of children while carefully observing what they are trying to do. Children's learning and skills developed at the sand and water are recorded within their own individual Personal Learning Journals. These PLJs are used to track children's learning and set targets for individuals to ensure progression in learning. Resources can be added to sand & water areas to support and challenge specific learning targets this will be recorded in the daily responsive planning. Children's interests and enquiries are at the heart of all planning, and this may be captured and further developed on a Learning Wall/ Floorbook to deepen their understanding.





An example of this in practice is depicted in the photograph of the “water wall” created by children. Children wanted to join the cascading water tray in our outdoor area to a “water wall” they had created using loose part materials to explore how the water would travel between them both and their challenge was how to connect them successfully together. The rich scientific and mathematical language and discussion this activity promoted allowed for meaningful learning and skill development. Children also developed their social skills through this activity and learned to work co-operatively, sharing ideas, making predictions, hypothesising and developing resilience to keep trying new ideas when things did not work out. Children experienced a sense of satisfaction and achievement by completing

a task together when they finally achieved their end result.

Diane Ballard (HT) in consultation with Vicki Thomson (DHoC) & Yolanda Pearson (EYLO)

Feedback

We are committed to supporting pedagogy in practice and would appreciate you taking just a couple of minutes to complete the feedback form on the link below. This also provides you with the opportunity to tell us which other areas you would like us to address in future pamphlets. By completing this form, you will help us provide you with the information you really want. Many thanks in anticipation. <https://forms.office.com/r/r851rRzYKv>

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