

Part 1.



Source: own image (2022).

Part 2.

This photograph is a small outdoor area that provides children with real learning experiences through play, they could delve into the mud kitchen, use their senses at the herbs, learn about living things investigating the bug house, what and become knowledgeable about the world they live in through living organisms and the connections between plants and their life cycle, insects, and their habitat, how they feed and live. The garden provides multifunctional learning and possibilities. The area is sustainable and able to develop over time.

The environment in the above photograph has many distinct aspects to support children's learning outcomes, especially maths and science. The mud kitchen in the top left corner of the photograph demonstrates bringing the indoors, outdoors where children have no restraints, able to investigate and be scientific in their learning about mathematical concepts. The mud kitchen gives children space and freedom to discover new mathematical concepts and language such as full/empty, texture, big/small. Practitioners support this learning by providing the resources to fill and extend children's curiosity, resources such as bowls, spoons, ladles, cutlery, mud, water, fruit, vegetables, jugs, herbs, scales, saucepans, utensils, chopping boards, colander, soil, leaves, acorns, twigs, conkers.

Incorporating loose parts into the mud kitchen provides maths development as children can use numbers, counting, quantity, problem solving, children are naturally good problem solvers.

Practitioners are there to facilitate and observe children's play, ensuring the plan rich, real experiences where children can experiment, discover, and grow. Using open ended questions to extend their language skills and learn about the world in which they live. practitioners are being enabling adults fulfilling children's inquisitive minds as children learn through experience.



Source: Own image (2022).

The top right of this photograph shows a small herb garden of sage, mint, lavender, rosemary, and chives. This area of the garden encourages the children to use their senses, it promotes scientific learning alongside holistic learning. The children have discovered the cycle of growing herbs, they understand they start off as a seed and grow into herbs, the herbs in the garden attract bees, the children are inquisitive and enjoy learning and looking for the bees, practitioners discuss with the children that the bees are in the garden at the herbs to take pollen to make honey, this then transistions into questions being asked “what is pollen?”, “what is honey?”, some children tell practitioners themselves or their mummy has honey, this can then be linked into circle time or snack time to give the children a taste of honey showing them and giving them an understanding that we need bees and plants to live. The children are

encouraged to use the herbs in their play, they use their senses and discuss smell, touch, as well as investigate the texture, and use mathematical concepts such as size and shape. Children have a responsibility to care for herbs ensuring they've enough water daily, this supports the children's multi-sensory learning through smell, touch, and looking, visually seeing the herbs and their growth. The herbs are often used at the mud kitchen, the children enjoy mixing the herbs with water, other natural resources and often describe their play as making a cake, making soup, or making a potion, it is then often offered to practitioners and the children make statements such as "smell it," or "it smells," the children when discussing the herbs ask questions about the size and shape of herbs, why they smell, why they smell different and the differences in colour. The children often want to take herbs home for their parents/parent as they have linked the herbs to flowers.



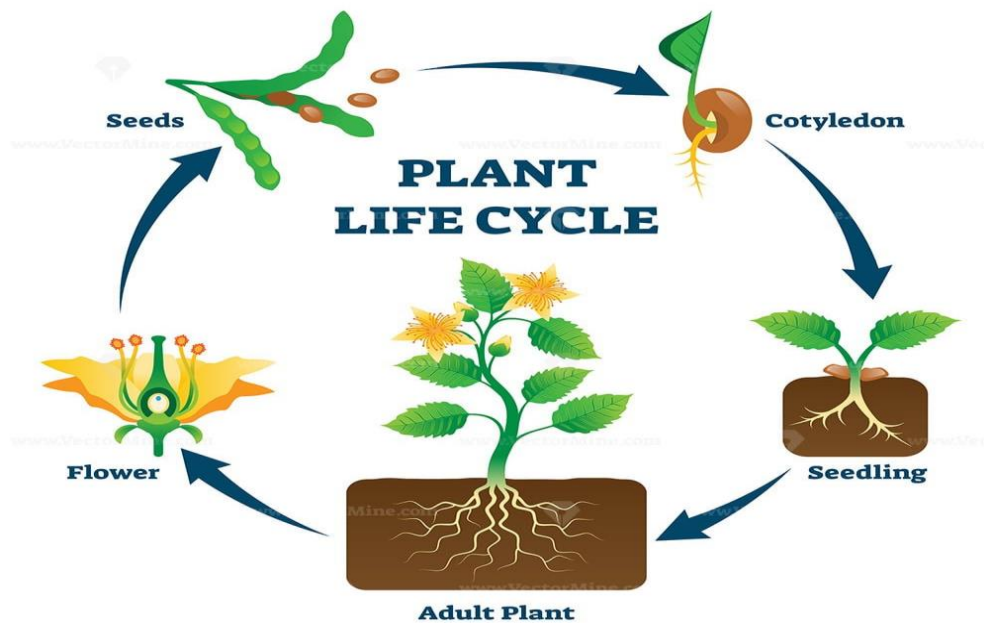
Source: Own image (2022).

Next, we look at the planting and growing area. Incorporating plants, planting, and growing permits the children to use their whole body, moving, bending, stretching, and using their senses, they can begin to understand cause and effect by learning plants need water, without it they will not grow or survive. As shown in the middle left of this photograph the children planted a pumpkin seed, nurtured, and fed it and watched it grow into a plant. Above on the wall they have planted strawberries and water them daily waiting eagerly to see a strawberry appear, by caring for the plants it gives the children a sense of responsibility and teaches them empathy for living things. The children have shown a keen interest in the things they have planted and grown, they have learnt about growth, shape, size, time, textures. They have

learnt about these concepts through planting the pumpkin seed and the practitioner explaining the growing process, and the children are able to anticipate what goes next. The children enjoy going into the garden to investigate the changes in their plants, we have also bought a variety of books about plants to link to their outdoor experiences, this gives the children to see visually on paper the life cycle of different plants. The books encourage language and discussion about plants and what they need to live. Connecting nature pedagogy encourages children to care for their environment, understand plants and their life cycle and living things through learning. This in turn builds on the children's confidence and self-esteem. Working with and playing in outdoor environments. Practitioner's need only to guide the children in their learning of the outdoor world as children are born scientists and take on the role with ease, practitioner can only observe and give resources and knowledge needed for the children to be keen gardeners.



Source: own image (2022).



Source: vectormine (2020).

Towards the bottom right of this picture stands a bug house which fill the children with wonder and curiosity. Bug houses give the children the opportunity to explore and investigate where bugs/insects live, they use magnifying glasses to get a closer look in the bug house without disturbing the bugs. The children learn about the design and structure of the bug house in addition to what creatures live in them. It gives the children an understanding of learning about bugs, mini beasts, and insects, they ask “what's that?” “what’s it doing?” furthermore they show excited emotions when they see the insects move using words such as ‘wriggle’, ‘fast’, and ‘moved’. It gives children new experiences, building vocabulary and more importantly creating the desire to care for living things.

The children’s interest and curiosity extend to unplanned, spontaneous play. They like to move objects and garden logs to look for bugs and insects, they use the garden to explore and extend their own learning. The children are confident enough in their knowledge and play to know if they move things in the garden, they will find living things. This gives practitioners the opportunity to extend the children’s learning by incorporating the weather in their discussion and by incorporating the outdoors into the children’s learning experiences.

Discussing the weather provides further opportunities to explore when wooden planters and logs are wet, or damp it becomes the best time to investigate and explore the garden for bugs and insects. Practitioners could extend the children's learning further by providing paper and

pencils for them to draw things they have found in the garden or bug house, take photos of the bugs and insects for the children to look back at or even practitioners to print out and use in and around the bug house.



Source: Own image (2022).

This outdoor area links to the new curriculum in Wales by supporting the children be capable learners and informed citizens, by practitioners giving the children the tools and teaching them the skills to be lifelong learners using an integrated approach allows the children to take learning about the outdoors, their environment, plants and living things doors extending their experiences and learning opportunities ensuring they have the best learning outcomes, Welsh Assembly Government (2022).

The outdoor garden area provides learning opportunity covering the five developmental pathways- Belonging, communication, exploration, physical and well-being. As a funded non-maintained flying start setting practitioners should follow the new curriculum in Wales when planning for the children ensuring inclusion for children of all abilities and ages, it links to the progression and development of the children, this allows them to be capable learners, maturing in their extension, knowledge and investigation of plants, life cycle and living things, Welsh Assembly Government (2022).

Part 4.

Practitioners who currently follow the foundation phase curriculum will understand the importance of outdoor play and how vital it is to implement play in the outdoors in equal measure to indoor play. When planning for children's learning and outcomes, the dual use of indoor and outdoor play opportunities allows for the use of open-ended questions alongside shared and sustained thinking. This approach actively supports children's outcomes when participating in outdoor learning (Welsh assembly Government, 2015).

The Flying Start programme, initiated by the Welsh Assembly Government, is built on the principles of valued learning experiences and opportunities that are available to children when they are able to utilise the outdoors. Flying Start have an open-door policy, adopted in all their settings, that allows children to take ownership of their choices, and take advantage of the free-flowing transition from the indoors to the outdoors and vice-versa (Welsh Assembly Government, 2019).

The new curriculum for Wales has also integrated the outdoors and learning, Welsh assembly Government (2022).

There are various studies that explore the importance of incorporating outdoor play in learning and goal setting for young children, with Greenaway (2005) stating that the outdoor environment is especially motivating for children and has a stimulating effect on their curiosity and sense of adventure.

This reinforces the works of Froebel (Tovey, 2017), who believed that children should be in tune with the world in which they live, and they can work towards achieving this by using the outdoor environment to overcome challenges, support exploration and experimentation, and build on their curiosity and sense of discovery.

This approach hinges on the role of well-trained adults being able to provide young children with meaningful daily outdoor experiences, that are planned based on the child's interests and educational needs. White (no date) is also an advocate of stimulating outdoor activities, that provide the child with holistic experiences that are child-directed and spontaneous.

The child-led activities that incorporate the outdoors should mirror the interest and enthusiasm shown by the practitioners in the planning; providing various tools, resources and space. This enables children to use the freedom in the setting to learn as they see appropriate, allowing for a versatile, multi-dimensional and multi-sensory environment which supports scientific and mathematical concepts.

Jensen and Bullard (2012) reiterate the beliefs of Tovey and White, when commenting on the exploration of different materials available to children when they are outdoors. Materials such as mud gives children the opportunity to learn about the elements and diversity of a malleable substance, providing children with endless possibilities. It is an open-ended material that allows children to use emerging educational skills such as science and emergent maths. Comparisons can be made; if a lot of water is added the mud is thinner, runny and not as solid. If little water is added it allows the mud to form into a clump, changing consistency and becoming more compact. The constant changes of state support children's curiosity and discovery, as they are not able to anticipate what happens next.

Mud kitchens provide children with the opportunities to develop their mathematical and scientific concepts. Mud kitchens can encourage mark-making opportunities using natural resources, this supports the principles of mathematical language, such as, 'high'. 'How long', 'big' and 'small'. Practitioners can follow the Children's lead and add resources such as weighing scales, pipettes, flowers, measuring jugs when the children are making their lotions and potions, this extends to scientific language and a learn opportunity how science works, Mountain (2020).

In addition to new and exciting materials such as mud, leaves, sticks that can facilitate learning, practitioners can support children's mathematical and scientific concepts through providing loose parts, which occur in the natural environment. Loose parts are transferrable, and moveable, children are able to construct, shape, mould and manipulate the loose parts. This supports the children's problem-solving skills, creativity and original ideas. Practitioners should use loose parts as an open-ended, accessible resource that encourages self-expression, communication and critical thinking. Practitioners can use observation to understand how children are able to learn using loose parts in their play, and how they can best support them to enhance their skills and learning outcomes (Rahardjo, 2019, pp 310-314). Although loose parts enable the children to develop their fine motor skills and manipulate a variety of resources there is also the added benefit of additional space in the outdoors for children to use

and develop their gross motor skills, investigating gravity, force and height by using body awareness. Proprioception helps children to use their whole body in the space around them. Understanding spatial awareness and using the materials available to them in the outdoor environment supports their coordination so they begin to use different body parts and move in different ways, this underpins physical development and movements, up and under, crawl and stretch, bend, step and climb, this links to scientific and mathematical concepts. **REF SWAY**
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Furthermore, these ideas support the works of Piaget and Montessori (cited in Aubrey and Riley, 2019), with Piaget suggesting that children learn best through first-hand experiences, using schemas to build upon already learned information that are reinforced and developed when they are able to interact with their surroundings. Practitioners are encouraged to follow Piaget's ideas and facilitate child-led play, building on the natural curiosity of children, and remembering the importance of children's independent exploration of the world (Aubrey and Riley, 2019; pp.42-46). Additionally, Montessori was convinced that a natural learning environment was paramount to children's learning, and that access to the outdoors without limitations was key to facilitating this. By giving children responsibility over elements of their own learning, and facilitating choice, both independence and confidence are established with practitioners only enabling the interactions, not modelling them (Aubrey and Riley, 2019, pp.26-29).

Reggio Emilia's approach is influenced by Vygotsky who claims children learn through their relationship with the environment. Her theory also links to Piaget's work stating children are capable learners who lead their own learning journeys. Moreover, Reggio Emilia suggests children need to make connections with their environment and ideas to enable them to have better learning outcomes and experiences when they actively participate in their development and learning. Practitioners can support and encourage children to be capable learning through observation of the child or children and plan for their interests. Communication between the practitioner and the child ensures the child feels respected and listened too, it promotes and facilitates child-led play. This stimulates the child's curiosity and discovery of their learning environment. Children are often able to reflect on their learning, this is known as experiential learning and by doing this guarantees positive learning opportunities, children and practitioners understand that the process of learning is more important than the end outcome.

Within education, research and curriculum it is highlighted the importance, benefits and opportunities of outdoor environments that provide young children. Sadly, children of today are not being given the chance and freedom to take risks, or experience adventure freely. This has been happening over many years. Adults and/or parents prefer to keep children at home, safe, restricting them from experiencing the outdoor environment in which they live. Children have less time to engage with their environment due to afterschool activities or clubs they are part of reducing any free time they may have. Parents do not wish for their children to be outside of the family home alone, consequently children are spending more time engaging in screen time. The digital and technological era have a significant impact on children's lives, putting limitations on the amount of time children spend outdoors.

Health and safety are huge barriers children are faced with. If children are not challenged or allowed to take risks, they are not able to problem solve or find solutions. They are not prepared for adult life and the problems they may not occur. Children are not growing up instilled with resilience due to the lack of risk opportunities they have faced. Children need to experience managed risks for them to be able to self-regulate their feelings. Taking risks allows them to reach goals, which helps them to build their confidence and self-esteem. They will feel safe and secure enough to make judgements on their own abilities and what they are capable of and build on their resilience, Gill (2007). Ernst and Tornabene (2012) also point out that adults or practitioners who may have had little or no outdoor experience would place caution on children being in outdoor environments. This creates a lack of positive experiences with outdoors for children. Practitioners should be well educated and trained regarding how beneficial the natural outdoor environment is, so that they are able to support the children in their learning. Practitioners need to be motivational and good role models to ensure children engage fully and to the best of their ability with the outdoors to give them the best experiences possible. Practitioners should also make sure the environment the children are connecting and learning with is safe and secure, managing the risks accordingly and removing any harmful substances or materials. Another barrier or limitation for children is having access to an outdoor area, whether that be at home or in setting, children are often not brought up in a home with a garden or outside area therefore on entering setting the child or children may need support developing their gross motor skills and knowledge of outdoor environments before they can extend their learning and become independent in their play and choices. If settings have no outdoor provision, they should plan for the children to experience

parks, woodlands, lakes or any outdoor environment near to the setting, doing this gives the children the opportunity to learn and understand the world in which they live, use their whole bodies, develop mathematical and scientific concepts, hear new sounds, feel new natural resources, mark make. Most importantly give the children the skills and tools needed later in life.

Reference list. Student:2111339 Module: ECEY5005

Aubrey, K and Riley, A (2019) *Understanding & using Educational Theories*. London: SAGE Publications.

Available at: <https://moodle.uwtsd.ac.uk/mod/url/view.php?id=364546&redirect=1>. (Accessed 01 October 2022).

Ernst, J and Tornabene, L (2012) Preservice early childhood educators' perceptions of outdoor settings as learning environments. Available at: [Course: Syndod a rhyfeddod - gwyddoniaeth, mathemateg a'r awyr agored/Awe and wonder - science, mathematics and the outdoors \(ECEY5005/C\) \(uwtsd.ac.uk\)](#). (Accessed 02 October 2022).

Gill, T (2007) *Nothing Ventured... Balancing risks and benefits in the outdoors*. Available at: [Course: Syndod a rhyfeddod - gwyddoniaeth, mathemateg a'r awyr agored/Awe and wonder - science, mathematics and the outdoors \(ECEY5005/C\) \(uwtsd.ac.uk\)](#) . (Accessed 02 October 2022).

Greenaway, R (2005) *What is outdoor learning*. Available at: [What is Outdoor Learning\(outdoor-learning-research.org\)](#). (Accessed 01 October 2022).

Jensen, J and Bullard, J (2012) *The mud centre: Recapturing childhood*. Available at: <https://moodle.uwtsd.ac.uk/mod/resource/view.php?id=362223&redirect=1>. (Accessed 01 October 2022).

Learning and Teaching Scotland (2006) Early Education Support. Reggio Emilia approach to early years education. Available at: [ELC35 ReggioAug06.pdf \(education.gov.scot\)](#). (Accessed 02 October 2022).

Mountain, J (2020) Nursery equipment: physical development- outdoor plot. Available at: [Nursery Equipment: Physical Development - Outdoor plot | Nursery World](#). (Accessed 02 October 2022).

Own image (2022) *Bug house* [Image]. Not published.

Own image (2022) *Garden*. [Image]. Not published.

Own image (2022) *Herbs* [Image]. Not published.

Own image (2022) *Mud kitchen* [Image]. Not published.

Own image (2022) *pumpkin and strawberry plants* [Image]. Not published.

Rahardjo, M (2019) 'Jurnal Pendidikan Usia Dini' How to use loose parts in STEAM? Early childhood Educators focus group discussion in Indonesia. Available at: <https://moodle.uwtsd.ac.uk/mod/url/view.php?id=362723&redirect=1>. (Accessed 01 October 2022).

Tovey, H (2017) A Froebelian approach, *Outdoor play and exploration*. Available at: [Layout 1 \(froebel.org.uk\)](http://froebel.org.uk). (Accessed 01 October 2022).

Vectormine (2020) *Plant life cycle vector illustration* [Image] Available at: original.jpg (1000×1000) (selzstatic.com). (Accessed: 26 September 2022).

Welsh assembly Government (2015) *Foundation phase framework*. Available at: [foundation-phase-framework.pdf \(gov.wales\)](http://foundation-phase-framework.pdf.gov.wales). (Accessed 01 October 2022).

Welsh assembly Government (2019) Flying start childcare: Guidance. Available at: [Flying Start childcare: guidance \(gov.wales\)](http://flying-start-childcare-guidance.gov.wales). (Accessed 01 October 2022).

Welsh Assembly Government (2022) *A curriculum for funded non-maintained nursery settings*. Available at: [Curriculum for funded non-maintained nursery settings - Hwb \(gov.wales\)](http://Curriculum for funded non-maintained nursery settings - Hwb (gov.wales)). (Accessed 28 September 2022).

Welsh Assembly Government (2022) *Curriculum for Wales*. Available at: [Curriculum for Wales - Hwb \(gov.wales\)](http://Curriculum for Wales - Hwb (gov.wales)). (Accessed 28 September 2022).

Welsh assembly Government (2022) *curriculum for Wales*. Available at: [Curriculum for Wales - Hwb \(gov.wales\)](http://Curriculum for Wales - Hwb (gov.wales)). (Accessed 01 October 2022).

White, J (date unknown) *Early Years Outdoors Vision and values for outdoor play*. Available at: <https://moodle.uwtsd.ac.uk/mod/resource/view.php?id=362222&redirect=1>. (Accessed 01 October 2022).