



Sourced: Ruth's Coastal walk (2022)

1 – The Sea and the rock pools.

Children love to explore in water. On a beach, there is plenty of opportunity to do this. Children can play within the many rock pools and discover different creatures, seaweed, shells, and different textures. Providing children have adequate supervision, they can really benefit from splashing in the sea and learning about water safety. There are many scientific benefits to children playing in the water, they can learn about forces from the waves, creatures, and their life on the beach. They can learn what items float or sink in the water by using experiments with different loose parts. They can learn the different textures of sand when wet and how water makes the sand heavier but lighter when dry. There are also many mathematical benefits to the children playing in water such as learning about temperature, the shape of different shells and stones that they may find. They could use measurements by seeing how much water is required to make sand the correct texture to create sandcastles. If using adult led loose parts – such as containers, they can learn about volume and depth. It is important that children learn water safety and the risks of water play. They gain valuable knowledge about looking after the planet from water play at the beach, they can be taught about how plastic can affect our Seaside. According to the Curriculum for Wales (2021) Playing in the sea and rock pools can meet many of their milestones such as mathematically discussing what is 'less than', 'more than' and 'the same as' within measurements. They can also form quantity using objects. They are also collecting data and investigating. It is also an idea to discuss time of when the tide is in and out, so they can begin to discuss and learn time which is also part of the Welsh Curriculum. Scientifically the Curriculum for Wales (2021) tells us how children should be aware of living creatures and how they live. They should also be able to communicate how forces can affect themselves and objects around them.

2 – The Sand and Sand dunes.

When playing in the sand, children get a feel of different textures where there is dry sand, wet sand, and sand full of pebbles. The sand dunes have lots of plants which are great for exploration and learning about different textures and creatures that may not be found on the beach. Children can be creative and become little scientists when on the sand, they can build and construct using the sand but also use loose parts which can be found all around them. Children can have races and roll down the sand dunes, they can play hide and seek (safely) where they can camouflage themselves within the sand dunes. There will be loose parts which are brought by adults such as buckets and shovels, but then there will be natural loose parts such as shells, stones, rocks, wood and recyclable items which children can play with also. These can really bring out their creative and theatrical side. Adults may bring flying objects such as kites, frisbees and balls which are all very beneficial to child's mathematical and scientific development. The Curriculum for Wales (2021) believe that mathematically children should be hitting targets such as counting, reciting, and writing numbers which can be done in the wet sand and through racing down the sand dunes. They should be able to count objects that they are able to and not able to touch, this is a great use of loose parts. They should be able to copy and extend patterns and compare different shapes which they have found. Scientifically Children should be able to show curiosity and ask questions, they can design and discuss what they are making. They can use simple tools to construct and deconstruct and explore different materials. All the above can be done through the use of loose parts found by children and also supplied by adults.

3 – The Salt house.

This Ancient monument is a great historical feature and one of a kind in this area. The Children will really enjoy learning all about the history of the ruins and the early salt-making process. It's an unusual building where children can explore, wander, and climb on lots of different levels. Full of potential risk but also full of many benefits and a potential area for lots of development. There are many scientific benefits to visiting the salt house as well as mathematical. Children can play games, climb, discover within the salt house. It has landscape views of the whole beach; this can be viewed from all directions and angles. The Curriculum for Wales (2021) encourages children to estimate and compare measurements, so children can discuss if parts of the salt house would be bigger than or smaller than something else. Incorporating history may be an interesting idea in seeing if children can estimate what would be older than or younger than the salt house. The Curriculum for Wales (2021) also wants to children to have the ability to compare different shape sizes and from looking at how the salt house was built, there are many different materials that they could use for this. They also like children to be able to investigate through imaginative play, an old building like this would be perfect to hit this target. Scientifically the curriculum for Wales (2021) believes there is an importance in children being able to explore, observe and communicate ideas. They should be able to explore different materials and use them. They should follow different instructions which is important when in an area like this. They should be able to communicate about forces, so dropping things from heights and discussing this would be beneficial to them in the salt house. There will also be living things within the salt house for the children to discover. There is plenty of scope for children to develop their knowledge and listening skills.

RISK BENEFIT ASSESSMENT

Location / Activity:	Beach	Date:	18/03/2022
Assessor:	Sarah Jones	Review date:	18/09/2022

ACTIVITY	How will young people BENEFIT from this activity?	Hazards and risks	Who is at risk?	PRECAUTIONS in place to reduce the risk of injury	Overall risk RATING: L/M/H
Paddling in sea or rockpools.	- Learning about sea creatures (using magnifying glasses and comparison with photographs) - Well-being and relaxation (feeling of the water and sand, sunshine) - Social skills (discussion with peers and adults) - Science knowledge such as forces, temperature, depth.	- Drown in water - Trip on rocks (can be slippery with seaweed and being wet) - Slip on seaweed - Creature bites/stings - Very cold water - Weather conditions	Everyone	Adults should be suitably noticeable and made known to children by wearing reflective vests. Children should have suitable clothing on. (Warm clothes, wellies, and spare clothes if cold). Buoyancy aids available always. Staff should be aware of allergies, swimming abilities if in sea and if any child is afraid. Depending on weather conditions, children and adults should have appropriate clothing on and sun cream for UV protection. There may be flags to go in between if sea is safe for children to enter.	High at start Medium After precautions.

ACTIVITY	How will young people BENEFIT from this activity?	Hazards and risks	Who is at risk?	PRECAUTIONS in place to reduce the risk of injury	Overall risk RATING: L/M/H
Use of flying objects	- Scientific benefits of force and gravity. (Using kites/frisbees and balls) - Fun activity - Social skills (working as a team) - Mathematical skills learning about height and size.	- Children running off and getting lost. - Open access (people on beach) - Dogs on beach. - Getting hit by flying object.	Everyone	We need to ensure children are aware of a safe meeting point (such as the lifeguard hut) if they get lost. Children as well as adults should be in reflective vests and suitable clothing. Children should be informed of risks prior to arrival. Ensure children are suitably supervised with an appropriate staff:child ratio.	Medium at start. Low After precautions.

ACTIVITY	How will young people BENEFIT from this activity?	Hazards and risks	Who is at risk?	PRECAUTIONS in place to reduce the risk of injury	Overall risk RATING: L/M/H
Climbing in Salt House	• Lots of history discussion about the salt house. • Exploration (wandering and looking closely at objects) • Fun climbing • Social and language skills • Landscape views (Children can see the whole beach from the salt house and can discuss) • Numeracy can be developed through counting • Scientifically children have ability to be on lots of different levels.	• Injury through falling when climbing • Old building could crumble away • Children could get lost • Open access for public • Not very accessible for additional needs (quite a far walk also)	Everyone	To avoid injury, children should be suitably supervised with a good adult:child ratio. The building should be checked over prior to entering. Staff and children to be suitably clothed (including footwear for climbing) but should have reflective vests to be seen. If additional needs attending, there is a ramp but would require one-to-one assistance.	Medium at start. Low After precautions.

ACTIVITY	How will young people BENEFIT from this activity?	Hazards and risks	Who is at risk?	PRECAUTIONS in place to reduce the risk of injury	Overall risk RATING: L/M/H
Play within the sand dunes	- Science development – learning about plants and different insects. Also, about gravity and forces if they choose to roll or run down. - Mathematical development – children will be working from all different heights and angles. - Social and language skills. (Working together and having races) - Lots of play opportunities such as hide and seek.	- Easy to hide, camouflage in long grass so easier to lose a child. - When hot there can be snakes. - Spiky plants - Sand dunes can be quite high, risk of falling - Weather conditions.	Everyone	To make it harder for children to “Camouflage”, Children must be wearing reflective clothing. And adults as well so that children can see them. Discuss with children the risks of the plants/animals. Suitable footwear for climbing. Depending on weather conditions, children and adults should have appropriate clothing on and sun cream for UV protection.	Medium at start. Low After precautions.

ACTIVITY	How will young people BENEFIT from this activity?	Hazards and risks	Who is at risk?	PRECAUTIONS in place to reduce the risk of injury	Overall risk RATING: L/M/H
Walking through the carpark	• Road safety knowledge (crossing the road, staying together, traffic lights, listening skills.) • Teamwork and language development • Awareness of the world around them. • Mathematically – children will benefit by having to walk in pairs. • Scientifically – children will see the movement of cars.	• Moving cars. • Open access for people, vehicles, and dogs. • Weather Conditions.	everyone	A road safety talk beforehand to ensure children are aware of the dangers of moving vehicles. Children should walk in pairs and hold hands. There should be the correct ratio of staff:children to ensure the safety of the children. Everyone should be wearing their reflective jackets. Depending on weather conditions, children and adults should have appropriate clothing on and sun cream for UV protection. Adults should have a whistle to make themselves heard.	Medium at start. Low After precautions.

ACTIVITY	How will young people BENEFIT from this activity?	Hazards and risks	Who is at risk?	PRECAUTIONS in place to reduce the risk of injury	Overall risk RATING: L/M/H
Finding loose parts to make objects	• Creativity (building, construction, use of imagination.) • Exploration. (Wandering around the area) • Knowledge of the world • Recycling (litter on the beach, discuss saving the planet and the importance of litter disposal.) • Discovering new materials. (Wood, water, plastic, grass, stones, shells.) • Lots of science and mathematics benefits	• Needles • Sharp objects • Dirty objects • Tripping over objects • Weather Conditions.	everyone	To ensure the safety of all children and adults, someone should collect the objects first and keep them all in a clean, tidy, and safe area. There should always be correct staff:child ratios for suitable supervision. The area should be checked over as much as possible before children are able to play there. If anything is missed, there should be bins available and a first aid box/first aider at all times. Depending on weather conditions, children and adults should have appropriate clothing on and sun cream for UV protection.	Medium at start. Low After precautions.

When supervising a group of children, the adult plays a huge part in their experience and what the children can gain from an activity. The adult is there to encourage, set boundaries, set goals and to ensure the child is always kept as safe as possible. Adults should risk assess but encourage children to take risks where possible so that the children can gain from taking the risks. Health and safety executive (2012) believe that If children are kept away from all possible dangers, they will not be able to learn about risks and how to prevent future injury. Welsh Government (2021) agree that There is a large importance on experiencing risk and foreseeing risks, because when a child is outside, they will grow in confidence and become resilient. Duglan (2015) also believes that by allowing children to assess their own risks and potential hazards, the adults will promote a culture of self-selected challenge. There is a lot of research that suggests this is beneficial, provided it is within safe supported play. Gill (N.D) backs this up by saying that for children to learn important lessons in the future, they need to learn from their mistakes. They may face challenges, but they will get so much out of it - such as learning about themselves and their capabilities. Sometimes the child and the adult need to think about what could go right and how the child will feel if it does go right, instead of worrying about what could go wrong. LtL (2022) confirms that to act safely themselves and with others, children need to be able to understand, recognise and manage risk. They should be prepared to make mistakes but also be able to feel content in knowing they are capable of overcoming risks. They should be allowed to push their limits and abilities to meet their own challenges. Froebel in Lilley (1967:126) encourages children to explore risk, those who do explore risk tend to be safer than those who steer clear from risk. By the child being aware of their own strength, ensures that they will go beyond their experience.

Adults should encourage children's engagement with activities, to do this they need to make activities exciting and fun. Outdoor play is a great example and opens the door to countless opportunities for children. (McLachlan, C., *et al*, 2010) quotes "Vygotsky's (1987) research has shown that scientific concepts prepare the structural formations necessary for the strengthening of everyday concepts. That is, the scientific concepts help children to make better sense of what they are experiencing in their everyday worlds." Tovey (n.d) discusses that using the outdoors for children's play, provides them with space for them to wonder, to be curious and to look after their health and well-being. Froebel believes that when children are outdoors exploring and playing, using activities such as gardening – They start to learn about nature and how to look after the world to benefit their futures. Outdoor spaces give children a chance to investigate and ask questions. (McCree, M *et al.*, 2018) advises the use of "playful, place based and nature-based, including scavenger hunts, wild art, basic whittling, creative crafts, shelter building, tree climbing, 'running around games', making bird boxes, foraging, conservation activities (coppicing), campfire cooking, willow sculpture, playing with mud and playing in a stream." Welsh Government (2019) think that seeing how living organisms grow and develop as well as reproduce, is beneficial for the children to be aware of the structures and functions of the living things. Welsh Government (2021) say that when a child uses their senses to smell, see, hear, and touch they can really gain a lot from being outdoors where it provides great opportunity to play and explore. When a child can connect and have an awareness within their environment, they tend to be empathetic towards the environment and know how much of an impact they can have on the world. Early years educator (2016) advises that for free and affordable places for activities, areas such as woods, coastlines and general wild spaces are inviting and highly recommended. LtL (2022) believe that it is vital that a child can experience the outdoors, children are different indoors. Outdoors is hugely engaging for a child its special and provides many learning opportunities. A Child will get to explore and have contact with all the seasons and elements of the world. This provides them with uncertainty, surprise and enjoyability. Thus, giving the child the need for that connection with the outdoors. My teaching Cupboard (2021) discuss how

Piaget's theory states that through experimentation and discussion/engaging with their surroundings, children can learn and develop. This means that children should have the ability to learn and develop through play. Piaget is a constructivism theorist, He believes that children look back on previous actions and learn from them, they are always learning new things, they learn new things based upon their current knowledge and they can change their current ideas when they learn new things. Piaget says that at the stage of egocentrism, children find it hard to gauge other people's perspectives. Even though they are continually learning and developing, children at this age tend to think in very concrete terms. Ernst *et al* (2012) says that A child should have the opportunity to creatively flourish, to show off their inventiveness and use their imagination. To provide outdoor play within a natural setting will provide the child with enriched learning. (Early years educator., 2016) quotes "The number of play affordances increases with the complexity of the environment. Flexible environments, such as wild spaces and woods, and spaces lacking a single-purpose dominant design function provide almost limitless play affordances, limited only by the child's imagination."

Within outdoor play, there is opportunity for children to find natural loose parts, but adults also play a part in this. They can encourage children to use the loose parts that are found and provide loose parts to get children engaged. Rahardjo (2019) teaches us that to encourage children's creativity, the use of loose parts can create many possibilities as they can be pulled apart and put back together in different ways, they are easily moved, built, changed and so on. Gull *et al* (2019) believes that the outdoors provides us with natural, recyclable materials which are known as loose parts, and they provide children with many ways in which to explore and learn. To teach children to be open-minded, it is a good idea to include loose parts in an activity. Robertson (2017) writes about how Nicholson's definition of loose parts goes beyond just materials that can be found lying around such as natural, junk or recycled items. These include ideas, gravity, music, concepts and so on. Nicholson views environmental education holistically. They are aware that humans play a part in the world, and they have created values, concepts, alternatives, and choices within this. Interestingly, the most vital loose parts are those that are everywhere in the wild, the country, the city, and the ghetto.

Adults play a big part in ensuring the children are aware of their surroundings and the damage people have on the planet. They can do this by providing adequate support and knowledge. Tovey (n.d) tells us that when a child has a want to learn about the natural world, and when they begin to explore the damages that people can do to the world, they will then want to look after the planet and ensure a safer future for themselves. To connect Science with the natural world, Kramer, and Rabe-Kleberg (2011) believe that children require playful hands-on experiences. Tuula (2020) advise that to encourage children to have an appreciation for nature, it is vital that they receive positive experience whilst they are still young. As an adult, there is a huge importance to give specific attention to the planet's organisms. This has been shown to enforce positive attitudes within the world as children get older. Welsh Government (2019) encourage to ensure children can grow to look after the planet effectively, they need to understand how to deal with challenges by learning about forces and energy. Gull *et al* (2019) discuss how there is a link between learning and fun when it comes to engaging with the environment for children. McLachlan *et al* (2010) believes that daily life experiences provide each child with everyday concepts. This provides development of scientific concepts in the context of school experiences. They also say that Vygotsky (1987) argued that what each child learns throughout their day and within all daily activities, set the foundations for learning scientific concepts. They publicised the importance of concept formation in Children being within two levels. These are the everyday level and the scientific 'schooled' level. According to research, Scientific concepts help children

to understand what they are doing in everyday worlds. It prepares the structural formations to strengthen everyday concepts. Early years educator (2016) say that Malaguzzi put sensory investigation in the middle. This let the child really get to know the area sensorily and teaches them multi-faceted thinking.

Adults will naturally observe on a day-to-day basis, but it is important to do so for effective development of the child. Schonberg (2013) discusses Piaget's thoughts on children at a young age are that they enjoy being involved in pretend/symbolic play. Piaget believed that there are obvious cognitive characteristics in children, they don't have the thought process for conservation. Centration is where a child can only focus on one thing at a time, and they regularly come to incorrect conclusions. To assess a child's conservation abilities, it may be a good idea to show them two glasses that are the same size with the same amount of water in, then transfer one into a longer thinner glass. The child will most likely say that there is more water in the longer thinner glass. Cherry (2021) believed that Lawrence Kohlberg's work was similar to Piaget's theory however it was more based on the discussion of how children gain moral reasoning. Sanders (2020) says Kohlberg's theory tends to look more at the cognitive side of development, where a child may be processing a thought, that is when they will decide if something is right or wrong. McLeod (2020) discusses how Piaget believed that Children's learning is preceded by their development, however Vygotsky argued that Learning is an important part of their development. Vygotsky believed that the way in which a child is brought up, shapes the child as to how and what they believe. Vygotsky believed that language and thinking start off separate until the age of three when they merge. Vygotsky thought that adults play a large part in a child's cognitive development. Vygotsky was aware of how children tend to be explorers; they like to discover things and develop as much as possible using their own abilities and learning. However, Vygotsky did emphasise that social contribution plays a larger part in a child's development. Vygotsky thought that children follow instructions from adults and then they internalize what they have learned to guide their own performance. Tovey (2016) says Froebel believed that Children, particularly the younger ones – tend to gain more through discussion and play. Play will encourage children to have fun, feel at peace, and generally benefit them. For a young child, play is meaningful and very important. One of the most important pieces to the Froebelian approach is the adult. They shape the feelings of the area; they encourage the relationships between children and enforce education. The adult's role is to teach. There must be a balanced, unbiased, decisive approach which is firm yet flexible. Early-education.org.uk (2022) also discuss that Froebel believed that Children tend to gain their knowledge of the world when they gain experiences daily. Froebel had strong opinions on the adults being able to understand the importance of observing in different ways and being aware of how children see their worlds. They should offer guided assistance with the child being free while considering a child's environment as to why they act the way they do. Froebel thinks that the adult should understand the child's emotions, relations, development, and ideas. The adult should be aware of when a child may need some time alone or need to be assisted with a more appropriate activity. Froebel was a strong believer in giving children an opportunity to form their own opinions, to make mistakes, to make choices, and to give support where needed. This is to ensure children get the best out of everything in the way that will help them learn. By doing so the adult will also learn from this. McCree *et al* (2018) states that "positive wellbeing outcomes and learning competencies may best be served through taking a scenic route, by not focusing on the goals for assessment but by engaging children restoratively in inhabiting living environments." Welsh Government (2019) say that for the world to gain intelligent, willing to learn adults: the child needs to look at what has been used previously within their mathematics and numeracy learning. This will assist with knowing how to better their performance. White (n.d) informs us that within the adult's role, it is important to be aware that young children react

differently within different areas and experiences. The adult should ensure that effective assessment and observation is carried out. Children should be kept safe but challenged.

Adults should recognise the benefits and what a child can gain educationally from the activities to assist the child to thrive. Welsh Government (2019) discuss how Mathematics – particularly numeracy enables people to assist with solving problems. Providing that mathematics and numeracy can be made positive and enjoyable for the children, this can ensure that they develop Mathematical resilience. The use of size and shape within the child's surroundings, can teach them about physics and mathematical shapes and angles. Schonberg (2013) writes about how Piaget discussed how a child's development can be a straightforward process, when a child shows ways of thinking which are more next stage development, they won't show patterns of the previous stage anymore. However, this is not always the case. Some children may excel in some areas such as the concrete operational stage today, but then show characteristics of the preoperational thought process tomorrow. Piaget's theory also does not consider other factors such as social, language and the environment which are important for development. Maynard *et al* (2013) believe that for children aged three to seven, the foundation phase for Wales recommends children have the facilities to learn through experiment and have a play-based approach. There should be outdoor activities which are child-initiated. Welsh Government (2021) say that children love to explore and find things out in a group as well as alone. They have a natural curiosity about their surroundings which makes them excellent problem solvers.

- Cherry, K., 2021. *Kohlberg's Theory of Moral Development*. [Blog] Very well mind, Available at: <<https://www.verywellmind.com/kohlbergs-theory-of-moral-development-2795071>> [Accessed 20 March 2022].
- Duglan, S., 2015. *Enabling Environments: Outdoors - In full swing*. Nursery World, [online] Available at: <<https://www.nurseryworld.co.uk/features/article/enabling-environments-outdoors-in-full-swing>> [Accessed 3 March 2022].
- Early-education.org.uk. 2022. *Friedrich Froebel – Early Education*. [online] Available at: <<https://early-education.org.uk/friedrich-froebel/>> [Accessed 20 March 2022].
- Early years educator. 2016. *Possibilities on offer*. [online] Available at: <<https://www.earlyyearseducator.co.uk/features/article/possibilities-on-offer>> [Accessed 3 March 2022].
- Gill, T., n.d. *Risk in play – possibilities and opportunities*. [Blog] Playful Childhoods, Available at: <<https://www.playfulchildhoods.wales/Blog/blog-risk-in-play-timgill>> [Accessed 3 March 2022].
- Gull, C., Bogunovich, J., Levenson Goldstein, S. and Rosengarten, T., 2019. *Definitions of Loose Parts in Early Childhood Outdoor Classrooms: A Scoping Review*. International Journal of Early Childhood Environmental Education, [online] 6(3), p.37. Available at: <<https://files.eric.ed.gov/fulltext/EJ1225658.pdf>> [Accessed 3 March 2022].
- Health and Safety Executive (2012) *Children's Play and Leisure – promoting a balanced approach*. Available at www.hse.gov.uk (Accessed 05/04/2016)
- Julie Ernst & Ladona Tornabene (2012): *Preservice early childhood educators' perceptions of outdoor settings as learning environments*, Environmental Education Research, DOI:10.1080/13504622.2011.640749
- Kramer, F., and U. Rabe-Kleberg. 2011. *Wissenschaftliche Untersuchungen zur Arbeit der Stiftung "Haus der kleinen Forscher"*. Accessed November 4, 2011. Accessed March 13, 2015. http://www.haus-der-kleinen-forscher.de/fileadmin/Redaktion/4_Ueber_Uns/Evaluation/Wiss.Schriftenreihe_2011_Band2.pdf.
- Lilley, I. (1967) *Friedrich Froebel: A Selection from his Writings*. Cambridge: Cambridge University Press
- LtL. 2022. *Outdoor Learning Publications: Learning through Landscapes*. [online] Available at: <<https://www.ltl.org.uk/publications/>> [Accessed 3 March 2022].
- McLachlan, C., Fleer, M. and Edwards, S., 2010. *Early childhood curriculum*. Cambridge.

McLeod, S., 2020. *Vygotsky's Sociocultural Theory of Cognitive Development*. Simply Psychology, [online] Available at: <<https://www.simplypsychology.org/vygotsky.html>> [Accessed 20 March 2022].

Mel McCree, Roger Cutting & Dean Sherwin (2018) *The Hare and the Tortoise go to Forest School*: taking the scenic route to academic attainment via emotional wellbeing outdoors, *Early Child Development and Care*, 188:7, 980-996, DOI:10.1080/03004430.2018.1446430

My teaching cupboard, 2021. *Stages of Development - Piaget*. Available at: <<https://www.myteachingcupboard.com/blog/stages-of-development-piaget>> [Accessed 20 March 2022].

Rahardjo, M., 2019. *How to use Loose-Parts in STEAM?* Early Childhood Educators Focus Group discussion in Indonesia. *JPUD - Jurnal Pendidikan Usia Dini*, 13(2), pp.310-326.

Robertson, J., 2017. *Simon Nicholson and The Theory of Loose Parts – 1 Million Thanks*. [Blog] Early years outdoors, Whole School, Available at: <<https://creativestartlearning.co.uk/early-years-outdoors/simon-nicholson-and-the-theory-of-loose-parts-1-million-thanks/>> [Accessed 3 March 2022].

Ruth's Coastal Walk (UK). 2022. *178 Oxwich to Port-Eynon*. [Photograph] Available at: <<https://coastalwalker.co.uk/2015/04/24/178-oxwich-to-port-eynon/>> [Accessed 25 March 2022].

Sanders, C., 2020. Encyclopedia Britannica. [Blog] *Lawrence Kohlberg's stages of moral development.*, Available at: <<https://www.britannica.com/science/Lawrence-Kohlbergs-stages-of-moral-development>> [Accessed 20 March 2022].

Schonberg, C., 2013. *Psychology Classics: Piaget's Stages of Cognitive Development*. [Blog] Psychology in action, Available at: <<https://www.psychologyinaction.org/psychology-in-action-1/2013/04/21/piagets-stages-of-cognitive-development>> [Accessed 20 March 2022].

Sutton, M. J. (2011). *In the hand and mind*: The intersection of loose parts and imagination in evocative settings for young children. *Children, Youth and Environments*, 21(2), 408-424.

Teresa Cremin, Esme Glauert, Anna Craft, Ashley Compton & Fani Stylianidou (2015) *Creative Little Scientists*: exploring pedagogical synergies between inquiry based and creative approaches in Early Years science, *Education 3-13*, 43:4, 404-419, DOI:10.1080/03004279.2015.1020655

Tovey, H (N.D) *A FROEBELIAN APPROACH* - Outdoor play and exploration. London: Routledge

Tovey, H., 2016. *Bringing the Froebel Approach to your Early Years Practice*. [online] Available at: <<https://www.taylorfrancis.com/books/mono/10.4324/9781315617190/bringing-froebel-approach-early-years-practice-helen-tovey>> [Accessed 20 March 2022].

Tuula H. Skarstein & Frode Skarstein (2020) Curious children and knowledgeable adults – early childhood student-teachers' species identification skills and their views on the importance of species knowledge, *International Journal of Science Education*, 42:2, 310-328, DOI: 10.1080/09500693.2019.1710782

Trisha Maynard , Jane Waters & Jennifer Clement (2013) *Child-initiated learning, the outdoor environment and the 'underachieving' child*, Early Years: An International Research Journal, 33:3, 212-225, DOI: 10.1080/09575146.2013.771152

Welsh Government, (2021). *A curriculum for funded non-maintained nursery settings*. Available at: <https://hwb.gov.wales/curriculum-for-wales/curriculum-for-funded-non-maintained-nursery-settings/> (Accessed: 14th March 2022)

Welsh Government, (2019). *Curriculum for Wales - Hwb*. Available at: <https://hwb.gov.wales/curriculum-for-wales/health-and-well-being/> (Accessed: 14th March 2022)

Welsh Government, (2021). *Curriculum for Wales - Hwb*. Available at: <https://hwb.gov.wales/curriculum-for-wales> (Accessed: 14th March 2022)