

I confirm that I have not presented any AI generated text as my own work

ECEY5005

2305639

Word Count: 3798

Awe and Wonder: An exploration into nutrition in the wild



I confirm that I have not presented any AI generated text as my own work

ECEY5005

2305639

Word Count: 3798

Contents

Part 1: A woodland area.....	3
Part 2: How could the environment be used to develop science and math concepts?	4
Part 3: Risk Benefit Assessment.....	9
Part 4: How can adults support the level of engagement children have with Maths and Science outdoors?	13
Reference List:	19

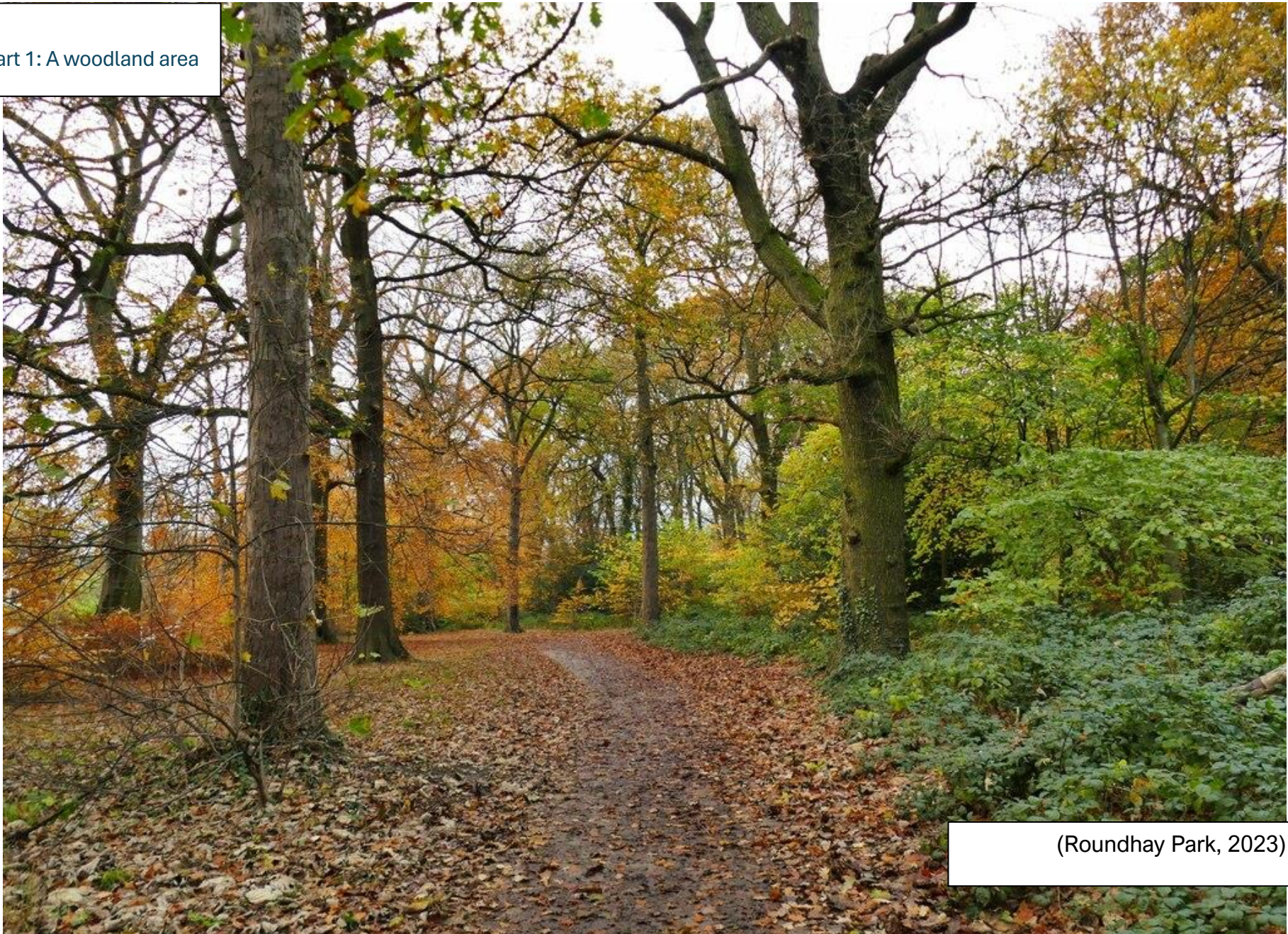
I confirm that I have not presented any AI generated text as my own work

ECEY5005

2305639

Word Count: 3798

Part 1: A woodland area

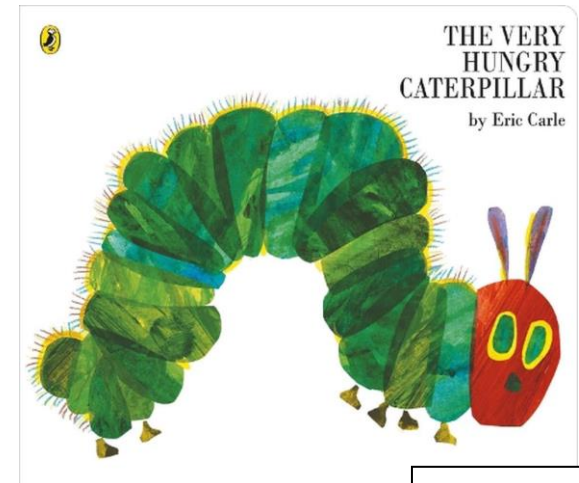


(Roundhay Park, 2023)

Part 2: How could the environment be used to develop science and math concepts?

This is an extract from Miss Brooks' year 2 floor book illustrating the importance of science and maths concepts outside of the classroom.

We begin our walk to the woodland area discussing our book of the week which happened to be 'The Very Hungry Caterpillar'. The children were interested about what bugs eat. Child A said "I think bugs eat what we eat! They like pizza and cake like me." However, Child B argued that " bugs can't eat like us because they don't have shops! Where do they get the food from though Miss Brooks?"



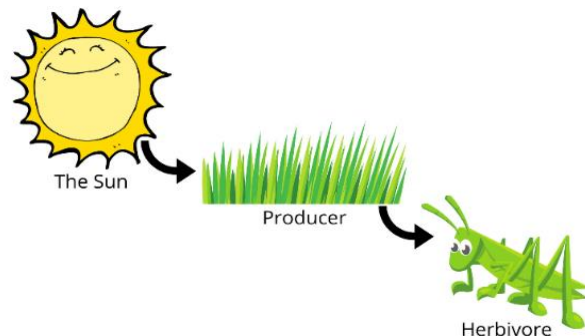
Carle, E (2011)

"That's a good question my little explorers!" said Miss Brooks. We began to discuss food sources and how bugs eat even if there aren't little shops for them. Then we arrived at the woods, and I told the children that there are hundreds if not thousands of different species who live in our woodland area. The children named some bugs such as beetles, butterflies, centipedes and grasshoppers, discussing the different properties they possess such as legs, wings and antennae. Linking to progression step one of mathematics and numeracy 'the number system is used to represent and compare relationships between numbers and quantities' (Welsh Government 2020).

“So, my little explorers today we will be learning a little bit about natural materials and food chains because you are so keen to learn about what different creatures eat” explained Miss Brooks.

Miss Brooks stated that “food chains in woodlands illustrate how energy and nutrients flow from one organism to another. An organism is any living thing such as you and me, grass and trees. There's producers which are plants such as shrubs, trees, and grasses which use sunlight to produce energy through photosynthesis.”

“Who can say that big word?” asked Miss Brooks.



Child C answered “pho-to-syn-the-sis”

“Well done! Imagine if plants had a magical kitchen inside them. This kitchen can make food just like how you might use a recipe to make a yummy dish. But instead of using a stove, plants use sunlight! Plants love the sun! They soak up sunlight with their leaves. Think of the leaves as solar panels that catch sunlight. Plants also need water just like us, but they don't have cups, they drink up through their roots from the ground. Plants breathe in a special gas from the air called carbon dioxide. You can't

Tree Huggin' Mom (2021)

see it, but it's there! When plants have sunlight, water, and carbon dioxide, they mix these ingredients together in their magical kitchen. The plant's leaves are like tiny chefs that make this special recipe. Plants make their own food called glucose. It's like a sweet treat for them that helps them grow big and strong. Plants also make oxygen, which is a gas that we breathe to stay alive. So, plants are like superheroes because they help us breathe” exclaimed Miss Brooks. This illustrates a clear

link to progression step one of science and technology ‘the world around us is full of living things which depend on each other for survival’(Welsh Government 2020).

Child B laughed and exclaimed “that’s amazing Miss. Brooks I can’t believe that plants are so important for us! But what do the bugs eat?”

“ I will tell you right now my super investigator! In nature, a primary consumer is an animal that eats plants. It’s like the first customer at a picnic table, munching on all the yummy fruits and veggies. In our book we learned that the very hungry caterpillar loved a juicy big leaf, didn’t we?” asked Miss Brooks.

Child F replied shyly “ yes, he ate lots of different foods in the book, but he had a bad belly. The caterpillar needed to eat something healthy and that’s why he needed a big leaf”

“You are absolutely right! If we ate sweets and chocolate all the time, we would have a bad belly! A caterpillar needs lots of leaves to grow because they give it energy, just like how you need a good meal to play and learn. After eating enough leaves and growing strong, the caterpillar gets ready for a big change. It will turn into a cocoon also known as a chrysalis and then, after some time, become a big, beautiful butterfly!” Illustrating a link to progression step one of mathematics and numeracy ‘geometry focuses on relationships involving shape, space and position, and measurement focuses on quantifying phenomena in the physical world’.

Child E screamed “ I love butterflies !”

“Me too! Caterpillars are important for a few reasons! By eating leaves, caterpillars help plants stay healthy. If they didn’t munch on leaves, plants might get too crowded or go rotten! It is also important for the caterpillar to get big and strong because caterpillars

are food for other animals like spiders and bigger insects. So, they help make sure the whole food chain works well. Then there's secondary consumers like birds who eat caterpillars, gaining energy from the insects they consume. And finally tertiary consumers which might be a Hawk. Hawks might prey on birds, representing a higher level in the food chain. But today we will focus on the producers and primary consumers!"

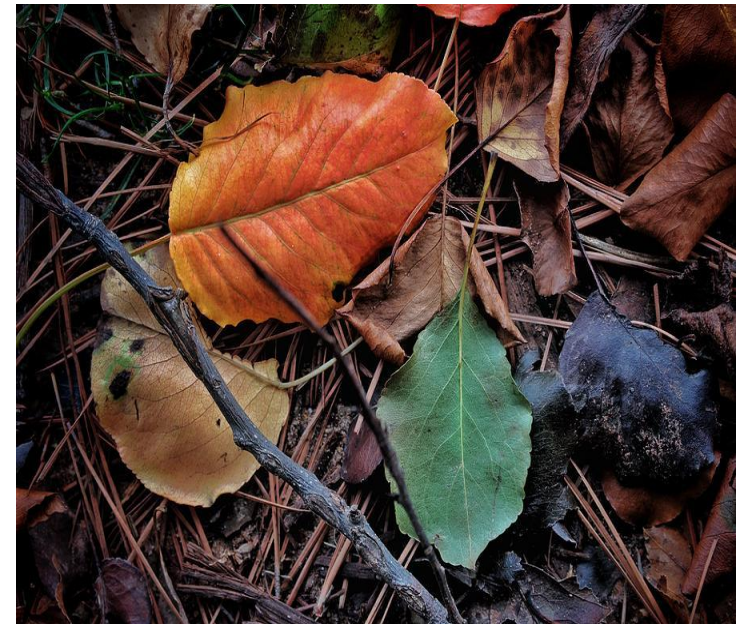
"I want you, my little explorers, to go and find me a producer! I am going to give you ten minutes to go and find as many producers as possible. Here are some bags for you to use to collect your materials ! Remember the golden rules little friends, stay relatively close to me or Mrs Briggs and go and have fun!" said Miss Brooks. Demonstrating a clear link to progression step 2 of science and technology 'being curious and searching for answers is essential to understanding and predicting phenomena' (Welsh Government 2020).

(10 minutes later)

"So, what have we collected explorers?" asked Miss Brooks.

Child D answered " I found some grass! I know it's a producer because the bugs eat and then my favourite bird, the robin, eats the bugs."

"Wonderful exploring little friend! Grass is definitely a producer! Did anyone else find something different?" Questioned Miss Brooks.



“I collected some coloured leaves; this is a big green one, and the other is a small brown one. The caterpillar will probably like the green one because it is bigger and looks juicier!” answered child F.

Buchanan, B (2015)



“Amazing work little investigator! Look children can you all see that the green leaf is bigger? Leaves can be all shapes, sizes and colours” explained Miss Brooks.

Child A came running over exclaiming “ I have found a very long stick! It must be bigger than 20cm because it is bigger than my arm and when I measured my arm last week in maths it was 20cm.” Linking to progression step one of mathematics and numeracy ‘statistics represent data, probability models chance, and both support informed inferences and decisions’.

(The children neared closer to filling their bags with a variety of natural materials.)

Finally, Miss Brooks and the children put all the natural materials back and made

little houses and beds for the bugs using sticks, leaves and pinecones. They said goodbye to the bugs and thanked them for letting

Splitcoaststampers (2024)

them borrow their producers for the morning. Everyone went back to school and the children, still full of excitement, decided to make thankyou cards for their new little bug friends.

Part 3: Risk Benefit Assessment

Location / Activity:	Woodland Area	Date:	05/09/2024
Assessor:	Charis Brooks	Review date:	

Experience exploring outdoor space in photograph	How will young people BENEFIT from this activity?	Hazards and associated risks	Who is at risk?	PRECAUTIONS in place to reduce the risk of injury	Overall risk after precautions RATING: L/M/H
Walking on uneven ground	- Navigating uneven surfaces challenges balance and coordination, which can strengthen the muscles responsible for stabilizing the body. This can help improve overall stability and reduce the risk of falls. - Walking on challenging surfaces, triggers the release of endorphins, which can enhance your mood and provide a sense of well-being. - Stimulate cognitive processes such as focus, spatial awareness, and problem-solving, which can be beneficial for brain health.	- Uneven surfaces can have hidden dips, rocks, or roots that might cause someone to trip and fall. - Navigating uneven terrain requires different muscles to work harder to maintain balance, which can lead to muscle fatigue or strain. - If a fall occurs there is a higher risk of cuts and abrasions becoming infected,	The Children and staff	- Wear appropriate footwear with good traction. - Stay alert of surroundings and watch where you step. - Use walking poles or sticks if needed for added stability. - Whenever possible, stick to marked trails or paths that are designed to be safer for walking. - Ensure essentials such as a mobile phone, first aid kit, and water are packed.	L

		especially if the terrain is dirty or contains sharp objects.			
Weather conditions	- Sensory experience, feeling diverse climate conditions such as the wind, rain, and snow. - Learning about seasons and the changes that occur within the environment at different times of the year.	If the weather is warm: - Children are more susceptible to heat-related illnesses. - Prolonged exposure to the sun can cause sun burn - High temperatures can lead to dehydration. If the weather is wet and windy: - Wet surfaces can be slippery. - Being out in the rain can increase the risk of catching a cold or other illnesses. - Strong winds can cause debris to become airborne, posing a risk of injury.	The Children and staff	- Stay hydrated, wear light clothing, and take breaks in the shade. - Use sunscreen with a high SPF and ensure that children are dressed in protective clothing and hats. - Encourage frequent water intake. - Ensure children wear waterproof, slip-resistant footwear and be cautious around puddles and wet ground. - Ensure children are dressed in waterproof clothing to stay dry and warm. - Keep children away from areas where debris might be blown around.	L
Crossing the road	- Teaches the children road safety - For individuals successfully crossing a road can enhance a	Slippery surfaces due to rain, ice, or snow can increase the risk	The Children and staff	Always cross at marked crosswalks or pedestrian	

	sense of independence and self-efficacy. It builds confidence in their ability to navigate their environment safely. • Navigating road crossings helps individuals become more aware of traffic patterns and safety rules, improving their ability to make safe decisions in different traffic situations.	of slips and falls when crossing the road. • Reduced visibility during adverse weather conditions can also make crossing more dangerous. • Pedestrians who are not paying attention due to distractions like smartphones or earphones might not notice oncoming traffic or changes in traffic signals.		crossings where drivers expect to see pedestrians. • Wear bright or reflective clothing to be easily seen • Adhere to traffic lights and pedestrian signals. Wait for the "walk" signal before crossing and look both ways. • Exercise extra caution during poor weather conditions, ensuring that both you and drivers can see each other clearly. • Stay alert and avoid using smartphones or other distractions while crossing the road.	
Collecting natural materials	• Developing curiosity • Natural materials are important elements of imaginative play • Exploring natural materials enhances a child's vocabulary. They may discover that a leaf feels crunchy, or a stick feels prickly	• Children could have a misconception about natural materials and collect items such as rubbish and unnatural materials. • Irritable and poisonous plants such as stinging nettles could cause	The children	• Make children and staff aware of the dangers of poisonous plants and ensure that there are no severe threats present. • Always supervise children while they are collecting natural materials. This helps ensure they stay safe from	

		rashes and infections if handled.		potential hazards and make appropriate choices about what to collect. Encourage children to wear appropriate clothing, such as long sleeves, long trousers, and gloves, to protect against scratches, insect bites, and potential contact with harmful plants.	
Children exploring in an open area	- Open areas provide ample space for running, climbing, jumping, and other forms of physical exercise. This helps children develop strength, coordination, and overall fitness. - Open spaces often present a variety of stimuli, this environment can spark curiosity and encourage imaginative play and problem-solving. - Open areas often provide opportunities for children to play with peers, collaborate in games, and develop social skills such as communication, cooperation, and conflict resolution.	- In some cases, children could have an allergic reaction to plants and animals who habituate the area. - Children may wander off and become lost - Unclean environment with sharp objects or animal faeces.	The Children and staff	- Ensure that the children have a clear sense of boundaries; where they can and cannot go without an adult. - Ensure staffing ratios are met to account for the safety of the children. - Survey the area beforehand to ensure it's a clean and suitable environment. - Ensure that children are aware of "stranger danger" and follow correct protocols when approached by a stranger.	L

Part 4: How can adults support the level of engagement children have with Maths and Science outdoors?

The Outdoor Teacher (2023) states that direct interaction with the outdoors, will cause a transformation of knowledge, skills, attitudes, and behaviours for the benefit of individuals, society, and the environment. Outdoor encounters with a purpose can serve as a spark for insightful and lasting learning. The Early Childhood Mathematics Group (2020) states that in early childhood education, fostering a deep engagement with mathematical and scientific concepts is essential for developing critical thinking, problem-solving skills, and a lifelong curiosity for learning. The next generation of childcare (2024) states that outdoor environments offer rich, hands-on experiences where children can explore these subjects in an engaging and dynamic way.

Furthermore, adults play a pivotal role in shaping how children interact with these concepts in natural settings (Sage Journals,2022). By providing guidance, creating stimulating environments, and encouraging inquiry-based learning, adults can significantly enhance children's understanding and interest in math and science (Ofsted, 2021). Part four will explore the various strategies and methods through which adults can support and enrich children's engagement with these subjects outdoors, drawing on educational theories and practical examples to highlight the importance of active, exploratory learning outdoors.

Piaget placed a heavy emphasis on the value of interactive and open learning environments with addition to active investigation. This kind of exploration is naturally encouraged by outside environments (Chand,2024). Children's mental models of the world, or schemas, are formed and refined through their interactions with nature, objects, and personal encounters. This could be learning

how shadows shift throughout the day can aid in their comprehension of time and geometry concepts (Educational Psychology, 2020). When examining curiosity in science and mathematics, especially in outdoor environments, Piaget's theory of cognitive development is pertinent (Lorina, 2020). Four phases of cognitive development were put forth by Piaget, and they represent the growing complexity of children's thinking. Piaget's theory of cognitive development emphasizes the value of active exploration and developmental phases in the learning process (Chand,2024). According to Piaget's "Preoperational stage," outdoor settings, which are full of opportunities for practical experiences and applications in everyday life, fit in well with these ideas and encourage curiosity and a deeper comprehension of science and mathematics (Libre Texts, no date). The key role of the adult should entail observing, supporting and extending play with key language and terminology but not intervening unless necessary (Froebel trust, no date).

According to UNICEF (2022) the United Convention Rights of a Child (UNCRC), recognizes the right to play as one of the basic rights of children. As stated in Article 31 children have the right "to rest and leisure, to engage in play and recreational activities appropriate to the age of the child." It is up to adults to protect and support this right for children. Early Education (2023) states that outdoor environments play a crucial role in early childhood education, offering numerous benefits for children's physical, cognitive, emotional, and social development. In the context of early years education in Wales, outdoor learning aligns with the principles of holistic development, experiential learning, and fostering a deep connection with nature (Welsh Government,2023). This approach is grounded in educational theories and frameworks, including the Foundation Phase in Wales, which emphasizes child-led, play-based learning. Adults can help children develop their outdoor play and intelligence by encouraging them to collect natural materials (Wilson,2007).

Welsh Government (2008) stipulates that outdoor learning is not simply moving a lesson outside nor is it play time. The foundation phase and outdoors are inseparable for one to thrive the other must be accounted for. The Foundation Phase environment must encourage freedom and curiosity, with a stronger focus on utilising the outside environment as a resource for children's learning, according to the current framework for children's learning in Wales for children ages three to seven. The Foundation Phase trial settings and schools have taught that the more an adult observes their children learning outside, the more they desire to spend time outside with them (Welsh Government, 2008).

In addition to this, it is crucial to foster children's innate curiosity and promote a hands-on learning approach by supporting mathematical and scientific concepts outdoors (The Early Childhood Mathematics Group, 2020). Adults, such as parents, teachers, or caregivers, play a crucial part in helping this kind of learning by establishing stimulating surroundings, leading investigations, and promoting critical thinking. Birth to five matters (2021) states that curiosity stimulates children to express their imaginations while causing them to explore and wonder, connect new things, and ask new questions. It is the spark that ignites motivation and engagement. Curiosity stimulates play and inquiry and serves as a catalyst for their inherent drive and involvement in the world around them. Adults may feel perhaps that children are wasting valuable learning time during creative play (Wilson, 2007). However, The Early Years Network (2023) states that outdoor learning offers potential for all areas of learning. Additionally, these are not provided through a range of 'activities' but through engaging experiences and adults who link with areas of knowledge to assist the child's learning but not disrupt (Froebel trust, no date). Therefore, the adult should offer opportunities for children to choose their own learning through ample resources and freedom (Birth to five matters, no date).

Play Scotland (no date) states that Nicholson's Theory of Loose Parts highlights the idea that flexible, open-ended materials—referred to as "loose parts" can significantly enhance children's play and learning experiences, particularly in outdoor environments.

These materials, which are not fixed or structured in specific ways, allow children to manipulate, combine, and use them creatively, fostering deeper engagement with concepts in math and science (The education hub, 2020). Loose parts could include natural items like stones, sticks, leaves, or man-made objects like ropes, buckets, and pipes (Popupadventureplay,2015).

Furthermore, Children can see and interact with tangible objects in a rich and meaningful way when they are outdoors. For example, tracking a plant's growth or looking for patterns in its fallen leaves might pique their interest and assist them in practically applying mathematical principles (Ojose, no date, and Anderson, 1990). Therefore, taking over a child-initiated activity does not give children a positive message. While the adult can introduce some resources and ideas, the child should be allowed to remain in a position of independence while learning about math and science outdoors (Wilson,2007).

Engaging in outdoor activities frequently tests children's existing frameworks and forces them to adapt their comprehension. For instance, studying the effects of various soil types on plant development might help children comprehend biological and mathematical concepts better and revise what they already know (Gradini, 2013). Lefa (no date) and Mwamwenda (2009) asserts that using Piaget's theory in the classroom is quite feasible. According to Piaget's idea cited in Care Learning (2024), a curriculum that helps children understand concepts and logical sequences will aid in their cognitive growth. Children already have a key sense of awe and wonder but need an adult to share the joy and excitement of their findings with stated Carson (1998) cited in (Froebel trust, no date). This shows that in line with the Welsh foundation phase adults should ensure that they have thought about the outdoors as an area of holistic learning and have enhanced provision and resources within these areas (Welsh Government, 2008).

According to Kernan (2010) Gibson's Affordance Theory also offers valuable insights into how adults can help children develop math and science skills in outdoor environments. "Affordances" are the opportunities or possibilities for action that the environment provides to an individual, depending on their capabilities and perception (Chemero,2024). Children must learn by taking risks to develop character and problem-solving skills. However, if an adult appears anxious or is constantly saying to children 'be careful'; 'don't do that', 'come down you'll fall', there is a danger that adults put their own anxiety and fears onto the child who is simply trying to play (Froebel trust, no date).

Essentially, an environment offers different affordances based on how a person interacts with and perceives the elements within it (Showing Theory to Know Theory, 2022). For children, these affordances can be manipulated by adults to facilitate learning, especially in areas like mathematics and science (Aziz and Said,2016). Moreover, Gibson's theory emphasizes the relational aspect of affordances and how an individual interacts with their environment based on their abilities (Kaaronen,2017). Adults play a key role in scaffolding children's interactions with the environment to ensure they notice and engage with the relevant affordances for math and science learning (Early years Alliance, 2019).

In applying Gibson's Affordance Theory to outdoor learning, adults can support children in developing math and science skills by creating an environment rich in affordances and guiding children's perception of these opportunities. Through scaffolding, expanding perception, and fostering independent exploration, adults can help children engage deeply with the mathematical and scientific concepts that nature offers. The role of the adult is not to direct but to facilitate discovery, ensuring that children are aware of and capable of taking full advantage of the affordances their outdoor environment provides (Pentagon Play, 2022).

I confirm that I have not presented any AI generated text as my own work

ECEY5005

2305639

Word Count: 3798

In conclusion adults play a vital role in encouraging mathematical and scientific exploration outdoors by creating environments for hands-on learning fostering holistic curiosities. Through the support and active participation of an adult children are aided in developing strong foundational skills in math and science, nurturing a lifelong interest in not only these subjects but the environment in which their interest was piqued.

Reference List:

Anderson, J. R. (1990). *Cognitive psychology and its implications* (3rd ed.). New York: Freeman.

Aziz, N.F and Said, I. (2016) *Outdoor Environments as Children's Play Spaces: Playground Affordances*. In: Evans, B., Horton, J., Skelton, T. (eds) *Play and Recreation, Health and Wellbeing*. Geographies of Children and Young People, vol 9. Springer, Singapore.

Birth to five matters (2021) *Curiosity*. Available at: [Curiosity-Bto5-2021.pdf \(birthto5matters.org.uk\)](#). Accessed: September 9th 2024

Birth to five matters (no date) *Learning environments*. Available at: [Learning environments – Birth To 5 Matters](#). Accessed: September 9th 2024

Buchanan, B (2015) *Sticks and Leaves*. Available at: [Sticks and Leaves Photograph by Buck Buchanan - Fine Art America](#). Accessed: September 3rd, 2024

Care Learning (2024) *What is Piaget's Theory of Cognitive Development?* Available at: [What Is Piaget's Theory Of Cognitive Development? - Care Learning](#). Accessed: September 12th 2024

Carle, E (2011) *The Very Hungry Caterpillar (Big Board Book)*. Available at: [The Very Hungry Caterpillar \(Big Board Book\) by Eric Carle, Hardcover, 9780141338484 | Buy online at The Nile](#). Accessed: September 3rd, 2024

Carson, R. (1998) *The Sense of Wonder* New York: Harper Collins

Chand (2024) *Constructivism in Education: Exploring the Contributions of Piaget, Vygotsky, and Bruner*. Available at: [\(PDF\)](#)
[Constructivism in Education: Exploring the Contributions of Piaget, Vygotsky, and Bruner \(researchgate.net\)](#). Accessed: September 9th 2024

Chemero, A (2024) *Affordances*. Available at: [Affordances · Open Encyclopedia of Cognitive Science \(mit.edu\)](#). Accessed: September 14th 2024

Early Education (2023) *Outdoor learning in the early years*. Available at: [Outdoor learning in the early years - Early Education \(early-education.org.uk\)](#). Accessed: September 9th 2024

Early years Alliance (2019) *National Week of Play: The role of the adult in learning through play*. Available at:

Educational Psychology (2020) *Psychological Constructivism: Piaget's Theories*. Available at: [Psychological Constructivism: Piaget's Theories – Educational Psychology \(sunycreate.cloud\)](#). Accessed: September 7th 2024

Froebel trust (no date) *Outdoor play and exploration*. Available at: [Layout 1 \(froebel.org.uk\)](#). Accessed: September 9th 2024

Gradini, E (2013) *Teaching Mathematics with Piaget's Theory*. Available at: [0954733c814fa7daee45f06752b59993cce1.pdf \(semanticscholar.org\)](#). Accessed: September 7th 2024

Kaaronen (2017) *Affording Sustainability: Adopting a Theory of Affordances as a Guiding Heuristic for Environmental Policy*. Available at: [Affording Sustainability: Adopting a Theory of Affordances as a Guiding Heuristic for Environmental Policy - PMC \(nih.gov\)](#). Accessed: September 13th 2024

Kernan (2010) Outdoor Affordances in Early Childhood Education and Care Settings: Adults' and Children's Perspectives. Available at: [Outdoor Affordances in Early Childhood Education and Care Settings: Adults' and Children's Perspectives on JSTOR](#). Accessed: September 9th 2024

Lefa (no date) *THE PIAGET THEORY OF COGNITIVE DEVELOPMENT :AN EDUCATIONAL IMPLICATIONS*. Available at: [\(PDF\) THE PIAGET THEORY OF COGNITIVE DEVELOPMENT :AN EDUCATIONAL IMPLICATIONS \(researchgate.net\)](#). Accessed: September 7th 2024

LibreTexts (no date) *3.6: Piaget's Theory of Cognitive Development*. Available at: [3.6: Piaget's Theory of Cognitive Development - Social Sci LibreTexts](#). Accessed: September 7th 2024

Lorina (2020) *Jean Piaget - Cognitive Development*. Available at: [Jean Piaget - Cognitive Development - Aussie Childcare Network](#). Accessed: September 7th 2024

Mwamwenda, T, S.2009. Educational Psychology .An African Perspective: (3rd ed.) Durban.Heinemann.

[National Week of Play: The role of the adult in learning through play | early years alliance \(eyalliance.org.uk\)](#). Accessed: September 9th 2024

Ofsted (2021) *Positive environments where children can flourish*. Available at: [Positive environments where children can flourish - GOV.UK \(www.gov.uk\)](#). Accessed: September 9th 2024

Ojose (no date) *Applying Piaget's Theory of Cognitive Development to Mathematics Instruction*. Available at: [Microsoft Word - v18n1_48pgs_pc_final.doc \(ed.gov\)](#). Accessed: September 7th 2024

Outdoor Teacher (2023) *What is Outdoor Learning and what are the Myths?* Available at: [What is Outdoor Learning? | Outdoor Learning Myth Guide \(theoutdoorteacher.com\)](#). Accessed: September 13th 2024

Pentagon Play (2022) *How adults can support their children in play*. Available at: [The Role of the Adult in Supporting Children's Play | Pentagon Play](#). Accessed: September 14th 2024

Play Scotland (no date) *Loose parts play*. Available at: [1-Loose-Parts-Play.pdf \(playscotland.org\)](#). Accessed: September 9th 2024

Popupadventureplay (2015) *Loose Parts Manual*. Available at: <https://www.popupadventureplay.org/wp-content/uploads/2019/08/Loose-Parts-Manual.pdf> . Accessed: September 14th 2024

Roundhay Park (2023) *Cycle path into Roundhay Park*. Available at: [Cycle path into Roundhay Park © Stephen Craven :: Geograph Britain and Ireland](#). Accessed: September 3rd, 2024

Sage Journals(2022) *Perspectives of play and play-based learning: What do adults think play is?* Available at: [Perspectives of play and play-based learning: What do adults think play is? - Karen McLean, Gillian Lake, Mary Wild, Ulla Licandro, Maria Evangelou, 2023 \(sagepub.com\)](#). Accessed: September 9th 2024

Showing Theory to Know Theory (2022) *Affordances*. Available at: [Affordances – Showing Theory to Know Theory \(pressbooks.pub\)](#). Accessed: September 14th 2024

The Early Childhood Mathematics Group (2020) *Early childhood mathematics pedagogy: exploration, apprenticeship & making sense*. Available at: [Early-Childhood-Mathematics-Pedagogy-illustrated-ECMG.pdf \(earlymaths.org\)](#). Accessed: September 9th 2024

I confirm that I have not presented any AI generated text as my own work

ECEY5005

2305639

Word Count: 3798

The Early Years Network (2023) *Embracing Nature & The Benefits of Outdoor Learning*. Available at: [Embracing Nature & The Benefits of Outdoor Learning | The Early Years Network](#). Accessed: September 10th 2024

The education hub (2020) *Materials for play: Why open-ended loose parts are important*. Available at: [Materials for play: Why open-ended loose parts are important - THE EDUCATION HUB](#). Accessed: September 9th 2024

The next generation of childcare (2024) *The importance of Outdoor Learning: How Nature Boosts Creativity and Learning in Children*. Available at: [The Importance of Outdoor Learning: How Nature Boosts Creativity and Learning in Children \(ngeducare.ca\)](#). Accessed: September 9th 2024

Tree Huggin' Mom (2021) *Food Chains for kids- The Circle of Life*. Available at: [Food Chains for Kids - The Circle of Life \(treehugginmom.com\)](#). Accessed: September 3rd, 2024

UNICEF (2022) *How we protect Children's rights with the UN Convention on the Rights of the Child*. Available at: [UN Convention on Rights of a Child \(UNCRC\) - UNICEF UK](#). Accessed: September 9th 2024

Welsh Government (2020) *AREA OF LEARNING AND EXPERIENCE Science and Technology*. Available at: [Descriptions of learning - Hwb \(gov.wales\)](#) Accessed: September 3rd 2024

Welsh Government (2023) *Early childhood play, learning and care in Wales*. Available at: [Early childhood play, learning and care in Wales - Hwb \(gov.wales\)](#). Accessed: September 9th 2024

Wilson, R (2007) *Nature and Young Children : Encouraging Creative Play and Learning in Natural Environments (1st ed.)* Routledge. London.