

# OUTDOOR AND ADVENTUROUS ACTIVITY: A CURRIUCLUM OVERVIEW



# The Redbridge Fishing Lakes and Conservation Well Being Project

*"As we begin to exit the pandemic and look to how we can build back better and greener, environmental science and geology will play a vital role in developing what our greener world will look like. But sadly, we are missing out on the potential of so many talented scientists, and risk further entrenching inequalities for the next generation if we do not act now to show everybody, no matter their background or gender, that science is for them"*

Ms Chi Onwurah -The UK Parliament's All-Party Parliamentary Group (APPG) on Diversity and Inclusion in Science, Technology, Engineering and Maths (STEM)

The World Bank's research, amongst others, evidences that work focussed on challenging inequalities needs to be priorities within our Early Education Settings and provisions. 2019 Early Years Foundation Stage Outcomes evidenced a range of 84% - 85% achievement in learning connected to "Understanding the World – The Natural World" Early Learning Goals. Deeper analysis evidences significant inequalities - Boys Ethnicity minority achievement was 47%; Girls/ Ethnicity minority - 63%. This data evidences with a growing concern related to low income and Ethnicity Minority families facing barriers/discrimination, which reduce their ability to engage in a range of nature, based, outdoor activities. (Research of Dr Anjana Khatwa)

99% of our Early Years Community would, in DFE terms, be categorised as Ethnicity Minority families. This project works to ensure that all our children could engage in high quality outdoor learning experiences focussed on Physical and Environmental Science.

This project further works on addressing a growing concern that the lasting impacts of COVID isolation has aggravated children's sense of biophobia – a fear of nature and the outdoors. A growing body of scientific literature shows how spending time outside has a positive effect on children's well-being, however, an increasing range of research argues that biophobia is a growing phenomenon that seems to be accumulative with urban development. That, biophobia is being reinforced and proliferated through society, which can have harmful consequences for children's physical and mental health. A child's progressively infrequent experiences with nature can lead to a feeling of disconnection.

Research has shown that children developing a reluctance to engage in The Outdoors are at greater risks of experiencing Increases in anxiety and depression at younger ages:

- Difficulties with emotional regulation and self-control
- Lack of socialization, sharing, and problem-solving skills
- Increased risk of obesity and Type II diabetes
- Vitamin D deficiency
- Higher stress levels
- Reduced creativity
- Lowered self-esteem

To reverse the cycle, research insists, education is essential. Children are especially impressionable and early exposure to nature in a safe environment, such as with a school, teacher or parent, could change their attitude. Creative solutions are necessary because as cities grow bigger and denser, accessing green space is becoming difficult for many, especially those in low-income communities (FSM) and Ethnicity minority families.

**Impacts:** The positive impacts of this work were confirmed when analysing the children's developmental progress and achievement in key identified areas, compared to both Local and national comparative data (see table)



## “This is how I walk in the woods”

Based on studies in London and the UK, there is a widely recognized decline in children's connection to nature, particularly in urban, socioeconomically disadvantaged areas like Redbridge. Research confirms this reduction impacts children's health, wellbeing, and educational outcomes, prompting various programs to re-engage young people with the natural world.

### Factors driving reduced nature connection

Multiple interconnected factors contribute to the decline in children's connection to nature in London and Redbridge.

- **Urbanisation and limited access to green space:** London has a high population density, and research shows that children in more urbanized areas are less connected to nature. In boroughs like Newham, for example, limited green space is a key barrier to accessing nature. A 2021 study in Nature Sustainability using data from London adolescents found that daily exposure to nearby woodlands was linked to better mental health outcomes, highlighting the importance of accessible green spaces in urban areas.
- **Socioeconomic deprivation:** A significant disparity exists in access to nature. Studies show that children and young people in more deprived areas are nine times less likely to have access to green spaces. For London's most disadvantaged communities, barriers include lack of green space and transport costs.
- **Increased screen time:** The rise of digital technology has led to increased screen time and sedentary behaviour among children, often taking the place of outdoor play.
- **Reduced outdoor play and mobility:** Children today spend less time playing outside without adult supervision than previous generations. Concerns over safety in urban environments, coupled with changes in transportation, have limited children's independent exploration of outdoor spaces.
- **Lack of teacher confidence and time:** A 2016 Natural England study found that teachers' lack of confidence in outdoor teaching was a significant barrier to outdoor learning in schools. Time constraints and lack of funding also limit schools' ability to offer regular outdoor learning.

### Research on consequences and benefits

The effects of reduced nature connection are a focus of research for several London-based organisations. (Team London, Redbridge Vision, Wildlife Trust, The Children and Nature Programme)

#### Cognitive and mental health benefits:

- A 2021 Imperial College London and UCL study of over 3,500 adolescents in London found that greater exposure to urban woodlands was associated with better cognitive development and a 16% lower risk of emotional and behavioural problems.
- The Mental Health Foundation and the London Wildlife Trust have also published research showing that engagement with nature significantly improves children's wellbeing and mental health.

#### Physical and social health improvements:

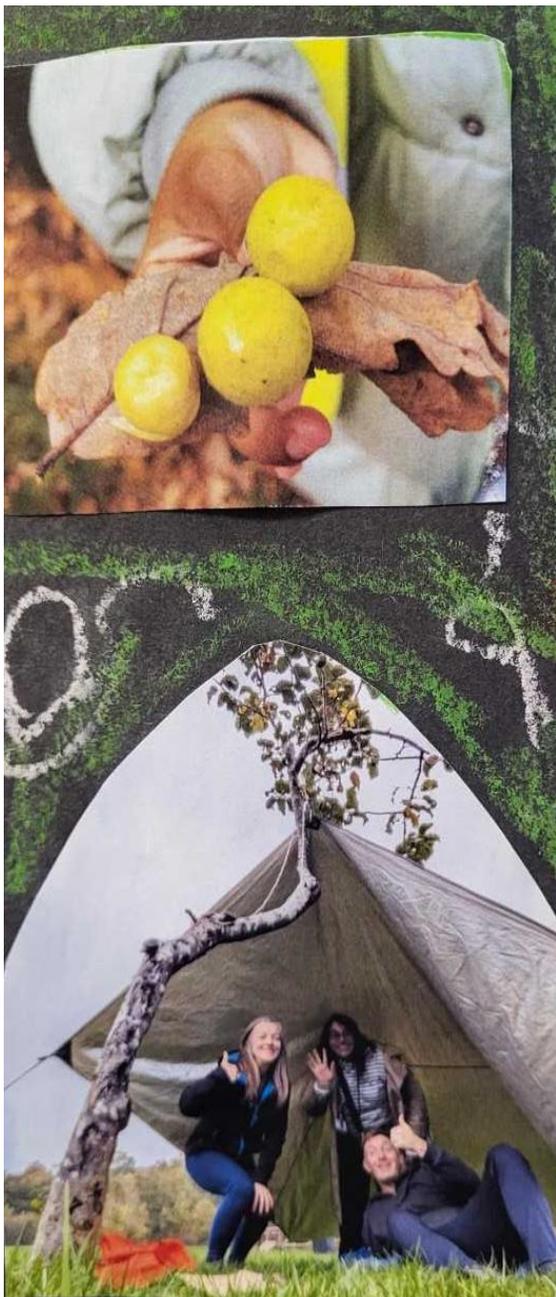
- The Royal Society for the Protection of Birds (RSPB) found a positive correlation between a child's connection to nature; over 90% of schools reported improvements in pupils' social skills, health, and wellbeing.
- Pro-environmental behaviour: Research suggests that children's time spent in nature is linked to positive attitudes about the environment later in life.
- Initiatives addressing the issue in London and Redbridge

### The need to be actively implementing programs to reverse the trend of declining nature connection.

Redbridge Council and its leisure trust, Vision RCL, run a nature conservation team that manages local open spaces and organises public events and school trips. Their Environmental Education program offers hands-on outdoor learning sessions at locations like Hainault Forest and Ray Park, however, staffing issues have caused interruptions to this programme.

In this work we focus on supporting teachers and practitioners from our school develop their confidence, skills and knowledge to run outdoor and adventurous learning experiences, centred on free play and nature connection. This work is delivered by professionally qualified nature therapists.





## “Permission to Play” Nature Connection

This work centres on creating protected time and space for the professional learning developing through our NIPA work with external experts, to become embedded into the daily practice of all our adults' supporting children across our Early Years Settings. This work looks to provide a safe and supportive space for Practitioners to develop their skills, knowledge, understanding and expertise in the delivery of Outdoor and Adventurous play opportunities, shared with them by our Nature Connection Therapist and Speech and Language Therapist.

Time and space for play and rehearsal is crucial; before expecting practitioners to instantly embed these approaches into our weekly practices across all areas of our Early Years provision. Professional development is essential to the early years curriculum because it ensures that educators are informed, skilled, and confident in implementing the most current, evidence-based practices. Since the earliest years of a child's life are a critical period for development, high-quality, continuous training directly enhances teaching quality and improves outcomes for children. The field of early childhood education constantly evolves with new research on child development and learning. Ongoing professional development (often called CPD, or Continuous Professional Development) allows practitioners to stay informed about the latest teaching strategies and educational standards. CPD strengthens an educator's confidence and expertise, empowering them to make informed professional judgments about a child's learning. This is crucial for explaining their approach to parents and other colleagues. (The importance of CPD in articulating the process of early childhood education, to drive quality and impact, Education Development Trust, Dubiel, J. 2024)

This work looks to support our Practitioners to identify ways in which their professional learning can form part of our sustainable provision. Providing time and space for them to explore how the strategies they learnt can be innovatively developed into practice – A “Permission to Play” in two senses:

- The adults having time and space to play with the children in a safe, enriching environment, trying out new strategies being learnt through our NIPA programme
- The children having protected time to play with our adults, experiencing high quality interactions centred on making relationships and language.

## Loose Parts and Outdoor Possibility Play

The late Anna Craft said that possibility thinking is moving from asking what something is, or does, to asking questions about what something might be or do or become. Possibility thinking is wondering, imagining, asking the question What if....?

Loose parts play involves providing young children with open-ended materials they can manipulate, move, and arrange in different ways. It's a flexible form of play that aligns with the Reggio Emilia philosophy, allowing students to build, create, and explore their learning environment in unique ways.

### The key benefits this kind of play:

- Encourages Creativity: Loose parts play allows children to transform objects into whatever they envision, nurturing creativity and encouraging them to think outside the box.
- Promotes Problem-Solving: Children engage in loose parts play to make structures taller, create bridges, and experiment with various combinations, fostering critical thinking and problem-solving skills.
- Develops Motor Skills: Manipulating loose parts of various sizes and shapes helps develop both fine and gross motor skills, contributing to physical development.
- Fosters Social and Emotional Development: Loose parts play often involves collaboration, which naturally encourages communication, negotiation roles, and language development.
- Supports Independence and Self-Confidence: Loose parts play helps children explore, observe, and engage with the world around them, strengthening their independence and sense of self.
- These benefits make loose parts play an essential component of early years pedagogy, providing children with the tools they need to thrive in a rapidly changing world.

### Understanding and recognising play cues and returns:

Adults can gain a better understanding of children's play by looking out for play cues and responding appropriately.

A play cue can be verbal, a gesture or an action and invites others to join the play. A response to a play cue creates a play frame. Children generally respond to each other's play cues naturally but for adults, understanding and recognising play cues is a useful skill to ensure we respond appropriately to children's play. A play cue is a hint or an invitation to someone to join in and play. Children communicate these invitations to play in different ways, sometimes verbally but often through gestures, posture or expressions.

The return is a positive and equally playful response to a recognised cue, which can also act as a further cue – an indication to take the play further. The frame can be:

- physical – a place or space, which could be as small as a cardboard box or as large as a playing field and which might be visibly indicated by mats, stones, rope, tyres, clothes, a hedge or fence, or a structure, platform, den, room or corridor.
- narrative – a new or a favourite storyline, a song or a piece of music, or a set of agreed rules. Any of these can give the reason for playing and hold the play together.
- emotional – when play is exploring a feeling such as fear, grief or triumph, so the props, the action, the place and the story can keep changing because it's the experience of the feeling that holds it all together.



# Pathways and Journeys

This form of play is central to supporting our children's need for exploration, mapping out an area in many ways, finding short cuts and secret routes, tunnels, knowing the local area, making one's mark in the landscape.

As adults we can support this play by helping children in map making both real and through digital devices, and, trail making with natural resources and props such as ropes, crates, spots or chalk.

Enabling children to decide what is an appropriate pathway/journey, within safe limits. Through these experiences we will:

- Enable children to explore and develop boundaries, safe limits,
- Support our children's self regulation in regards to what these are and how you judge
- We will steer clear of complex rules in favour of shared understanding and simple guidelines
- We will only organise when children want support.
- Avoid organising children's play

## We take a three-dimensional view of Journeys and Pathways

This means reviewing the environment to ensure a range of:

### "Levels"

- Going below ground level, e.g. by digging a hole or jumping in a puddle.
- Working at ground level: creating and building with sit-upons (crates, pallets, blocks) or pieces of fabric.
- Working at waist height – at a table or on a wall.
- Experiencing height, including stretching or stepping up to reach, e.g. to pour water down through a water wall, Objects hanging down – from a rope line, tree branches or constructions such as mobiles which involve building downwards, or a bottle of water that is hung on a string to create a pendulum.

### "Surfaces"

- Mixing horizontal and vertical, e.g. water in a bucket on the ground next to a water wall.
- Working on either side of a vertical palette or above or below a surface, e.g. under as well as on top of a bench or picnic table.
- Including slopes or inclines and thinking about how the angle can be changed, e.g. a water slide on the flat surface, to one on a gentle hill, or moving guttering up and down some steps.
- Changing the play surface: grass to tarmac or have different materials available



# Den Building

Building dens is a natural and important pastime in children's social and emotional development. Adults can support this form of play while respecting children's need for privacy.

**Our provision is guided by the work of Anne O'Connor: A Unique Child: Practice in pictures - Den Building**

## “Seeding”

We consider “seeding” play construction by setting out some elements of dens – such as pieces of fabric tied between trees – and leaving other materials out nearby. Children new to den building are likely to investigate these changes and adapt them.

## “Avoid Tidying Up”

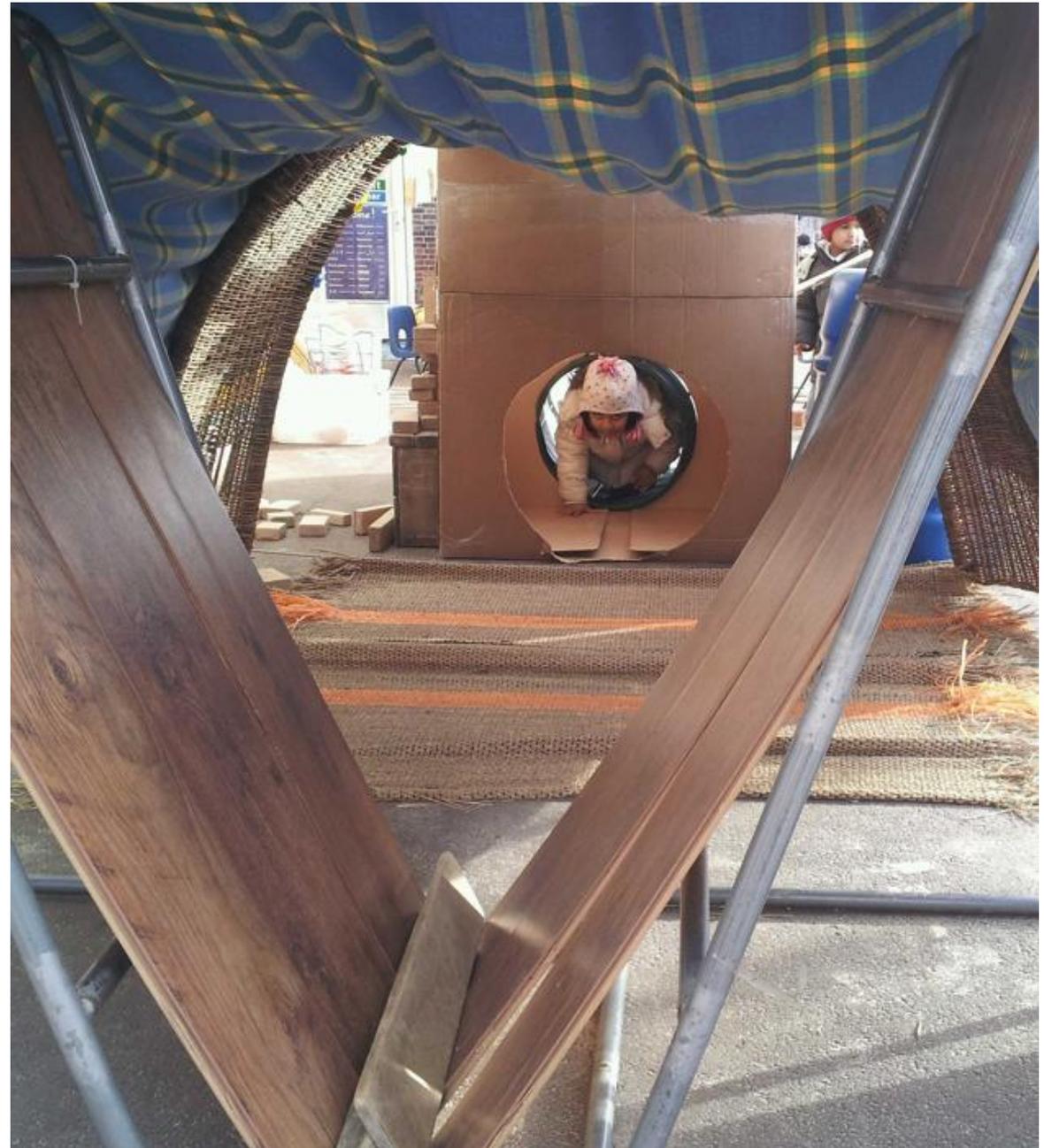
One common practice that can severely limit play construction is the habit of ‘tidying up’ play spaces at the end of the session/day. This means that children cannot enjoy play construction on a long-term basis, cannot slowly adapt or decorate their places, cannot establish complex narratives between their locations and others on site. By always dismantling play buildings at the end of the session/day, we are invalidating children’s material changes to the site and effectively saying that they have no permanent place and no value.

Adults ‘tidying up’ the space indicates their preference for ‘neatness’ – not the children’s. This practice ‘resets’ the site every day so that play construction needs to begin anew every time, with the knowledge that its survival is not determined by the child. When materials are left out, children regain control of them. Children learn that their buildings can stand, that their locations are of importance and that their destruction or abandonment is also part of the play cycle.

**In planning these opportunities, we carefully consider:**

- Sub-spaces suitable for den-building
- Materials with which environments can be adapted and built
- Materials and spaces in combinations accessible for all children, including those who are particularly young, particularly adept or with issues of physical mobility?
- Support regarding material concerns, e.g. help in construction if approached
- A spontaneous and flexible site where materials can be left out to allow buildings to survive the whole of the play cycle
- A non- or low-intervention play work style, waiting to be asked to join, rather than interrupting?

<https://islingtonplay.org.uk/wp-content/uploads/2017/09/den-booklet-web-version2.pdf>



## “This is how we walk in the woods” - Addressing The Invisible Dilemmas

475 of our Community have recently arrived from abroad and may not be entitled to access essential benefits and services due to not having either a, “Settled Status” or “Leave to remain” status.

Families living in our borough experience higher levels of the following “risk factors” compared to other London Borough’s:

- Child poverty (41%)
- Lower levels of affordable housing (past 3 years only 60 “affordable” homes built compared to 110/year across London)
- Pay inequality (2.78)
- Evictions (2.21)
- Rough sleeping (330)
- Families living on benefits (11.6%)
- Unemployment (5.4%).

The Institute of Education’s research indicates that children living in families facing two of these risk factors have worsening developmental outcomes, most notably in children’s language, speech and vocabulary development. With a 4.6-month gap in development now evident between disadvantaged children and their 3–5-year-old peers. The World Health Organisation has further identified that children facing such issues are at high risk of developing social and emotional issues, which in turn lead to an even greater negative impact on their long-term outcomes.

24.4 households within our community live in temporary accommodation - Private renting is the most insecure type of housing, with the continued existence of Section 21 ‘no fault’ eviction notices, which leaves many private renters under the constant threat of eviction. Private renting also remains the most unaffordable housing tenure, with private renters spending on average 40% of their income on rent. As families struggle to find an affordable place to live, or are unable to move within the social rented sector, they are forced to accept housing that isn’t suitable for the needs of them and their children.

Families in this situation are develop increases in anxiety and depression at younger ages: Difficulties with emotional regulation and self-control, Lack of socialization, sharing, and problem-solving skills, increased risk of obesity and Type II diabetes, Vitamin D deficiency, higher stress levels, reduced creativity, lowered self-esteem.

To reverse the cycle, research insists, education is essential. Children are especially impressionable and early exposure to nature in a safe environment, such as with a schoolteacher or parent, could support children’s needs. Creative solutions are necessary because as cities grow bigger and denser, accessing green space is becoming difficult for many, especially those in low-income communities (FSM) and Ethnicity minority families.

This provision continues on from the work developed with our younger children “How I walk in the woods” but focussed on our older KS1 and 2 children





## Orienteering

Orienteering in primary school offers significant benefits across physical, cognitive, and social development by engaging children in active, outdoor problem-solving. It is a cross-curricular activity that supports subjects like Physical Education (PE), Geography, and Mathematics.

### Key Benefits

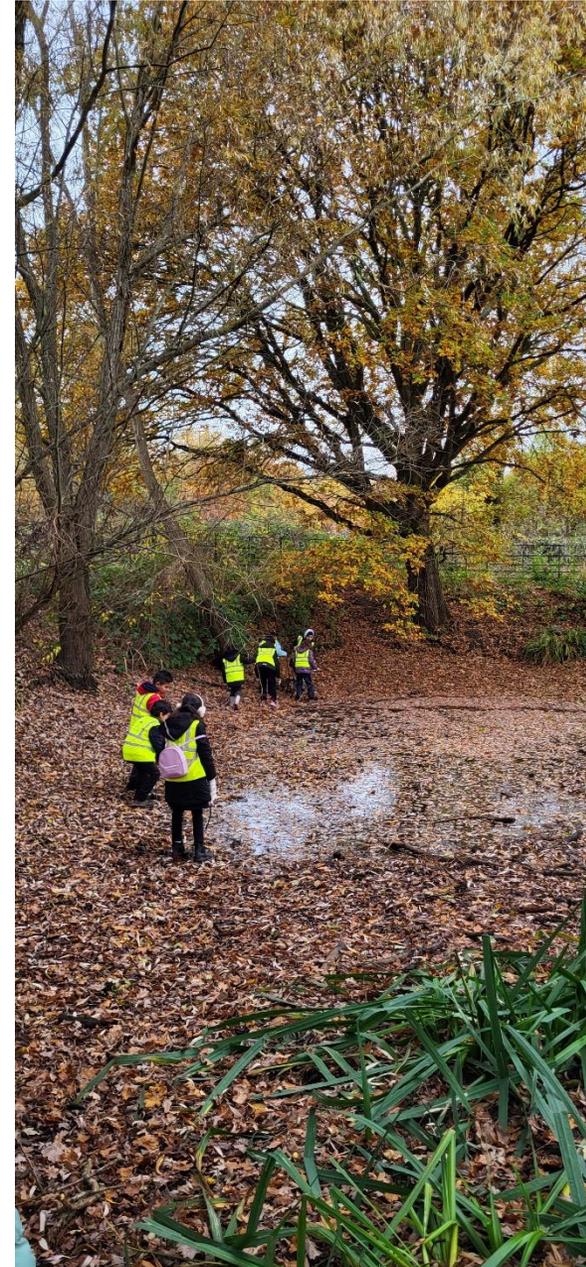
- **Physical Fitness and Health** Promotes long-term health habits by providing regular outdoor exercise and fresh air. It helps children build fitness, stamina, agility, and coordination, contributing to their overall physical development and supporting national curriculum requirements for PE.
- **Navigation and Problem-Solving Skills** Teaches essential map-reading and compass skills, including understanding symbols, keys, and orientating maps. Children develop their spatial awareness and critical thinking as they plan routes and make decisions to locate control points.
- **Academic and Cognitive Development** Physical activity boosts brain function, enhancing concentration, memory, and recall, which can improve academic performance across all subjects.
- **Personal and Social Skills** Fosters independence and self-reliance as children navigate courses and make choices on their own. When done in teams, it builds communication, collaboration, and leadership skills, and helps develop resilience and self-confidence.
- **Engagement and Motivation** Provides a fun and adventurous alternative to traditional sports, which can engage children who might not thrive in conventional PE settings. The sense of exploration and personal challenge makes learning enjoyable and encourages a positive attitude towards physical activity for life.

# Mapping activities

Mapping activities in primary school offer significant benefits, including the development of spatial awareness and critical thinking skills, enhanced language and vocabulary, and support for learning across the broader curriculum, especially in STEM subjects.

## Key Benefits

- **Development of Spatial Skills:** Maps allow pupils to visualize the world from a "bird's-eye view," helping them understand concepts like location, distance, scale, and orientation. This spatial thinking ability is a foundational skill and has been shown to correlate with improved achievement in mathematics and science.
- **Enhanced Language and Communication:** Engaging with maps, whether through talk, drawing, or using digital tools, provides opportunities for children to use and embed new vocabulary, such as positional and relational language (e.g., "next to," "north," "clockwise"). Maps also prompt discussion and conversation as children describe their local area, journeys, and real-world experiences.
- **Memory and Information Retention:** Maps act as visual learning tools, helping students to organize and synthesize large quantities of information. The combination of images, symbols, and labels facilitates better memory retention and recall of geographical information.
- **Critical Thinking and Enquiry:** Maps are powerful tools for critical thinking. Teachers can encourage pupils to analyse maps by asking questions about what they show, why patterns exist, and how different maps might tell different stories. This fosters a questioning approach and the development of enquiry skills.
- **Understanding the World and Sense of Place:** Mapping activities help children develop an appreciation for their local area and the wider world, fostering a sense of belonging and national identity. They provide a tangible way to connect abstract geographical concepts to real-world locations and processes, such as the impact of human activities on the environment.
- **Cross-Curricular Connections:** Geography is often described as an "umbrella" subject, and maps provide opportunities to link learning with history (tracing empires), science (distribution of ecosystems), and literacy (using maps for storytelling).
- **Engagement and Motivation:** Children are naturally curious about their surroundings, and using maps in both indoor and outdoor environments can engage their sense of wonder and adventure. Play-based activities, such as treasure hunts using a school plan, make learning enjoyable and help children concentrate and build resilience in problem-solving.
- **By progressively introducing maps from simple pictorial representations of familiar areas to more complex Ordnance Survey and digital maps, educators can align teaching with children's cognitive development, building their skills over time.**



## Bouldering: Stratford Climbing Centre and our own play space



Bouldering offers significant physical, mental, and social benefits for children, including improved strength, problem-solving abilities, self-confidence, and social skills.

### Physical Benefits

- **Full-Body Exercise:** Bouldering is a comprehensive workout that engages nearly every muscle group, building strength in the core, arms, legs, and hands.
- **Motor Skills Development:** The activity enhances both gross and fine motor skills, improving balance, agility, hand-eye coordination, and body awareness.
- **Physical Health:** Regular participation in bouldering helps to improve cardiovascular health, flexibility, endurance, and can contribute to managing a healthy weight and promoting better sleep.

### Mental and Emotional Benefits

- **Problem-Solving Skills:** Each climbing route is a "problem" to be solved, requiring children to think critically, plan their moves, and adapt their strategies to reach the top. This fosters cognitive development and is even linked to improved academic performance.
- **Confidence and Self-Esteem:** Successfully navigating a challenging route and overcoming the fear of heights provides a tremendous sense of accomplishment, which in turn boosts self-confidence and self-efficacy.
- **Resilience and Perseverance:** Falling is an inherent part of climbing. Learning to accept failure, try again, and manage frustration builds resilience and a positive attitude towards challenges.
- **Focus and Concentration:** Bouldering demands full focus and attention to hand and foot placements, helping children to develop mindfulness and the ability to concentrate amidst distractions.
- **Stress Relief:** The physical exertion and mental engagement help to relieve stress and anxiety, promoting overall mental well-being.

### Social Benefits

- **Communication Skills:** When climbing with a partner or group, children must communicate clearly to ensure safety and coordinate movements, which builds effective communication and listening skills.
- **Teamwork and Trust:** Children learn to trust their belay partners (if rope climbing) or spotters (if bouldering) and support fellow climbers, fostering teamwork and positive relationships.
- **Community and Social Interaction:** Bouldering gyms often have encouraging communities, providing an opportunity for children to make new friends with shared interests and develop a sense of belonging.
- **Responsibility:** Children learn the importance of using equipment correctly and following safety procedures, which teaches them responsibility for themselves and their peers.

## Mersea Island: Residential Visit

Mersea Island's unique physical features include its tidal nature, which allows it to be accessed on foot or by road from the British mainland, making it one of the few unbridged tidal islands. The island's saltmarshes and mudflats are important sanctuaries for wading and migratory birds, providing a rich habitat for various species. The intertidal zones and the Blackwater and Colne estuaries surrounding the island offer stunning views with rich educational and recreational opportunities for our children.

The aims of our Mersea Island Residential are:

- To engage our children in managed risks and challenging activities: Engaging in managed risks is crucial for children's development as it fosters essential life skills and promotes healthy physical, cognitive, and emotional growth. By allowing children to explore boundaries and challenges within a safe, supervised environment, they learn to assess risks, develop problem-solving skills, and build resilience, all of which are vital for their future well-being.
- To develop our children's resilience, maturity and sense of community: Resilience is the ability to do well despite challenges in life. It helps us adapt successfully and bounce back from adversity, failure, conflict and disappointment. When faced with challenges and difficulties, resilient children still experience anger, grief and pain. But they can function and recover. Resilient children also tend to persist in the face of a difficult task, know when to ask for help and are more able to tolerate failure. They can be confident in their own lovability and value too, which helps with good self-esteem. Developing a sense of community, belonging, will support our children build important positive relationship with both their peers and other adults in their school lives. This can help them develop better friendships and empathy and is linked to higher levels of educational achievement and self-esteem.
- To support our children in experiencing "The Wider world": Creative solutions to counter children's growing nature deficit are necessary, as cities grow bigger and denser, accessing nature is becoming difficult for many, especially those in low-income homes from ethnic minority communities. What used to be routine daily interactions with nature are disappearing, which is negatively affecting children's attention span, physical activity level and resilience to stress – not to mention the spiritual benefits of connecting with something larger than ourselves.



## Visits to Stubbers Adventure and Outdoor Activity Centre

Stubbers Activity Centre provides numerous benefits for children by offering an extensive range of over 35 outdoor activities across land, water, and air. These experiences help children develop core skills, build confidence, improve physical health, and foster a greater appreciation of nature.

### Key benefits include:

- **Skill Development:** Activities such as open canoeing, orienteering, and team challenges are designed to build essential skills like collaboration, communication, problem-solving, and leadership.
- **Physical Health and Fitness:** Children engage in a wide range of physical activities (climbing, paddleboarding, 4x4 driving, etc.) that help keep them active, build strength, stamina, and coordination, and encourage a healthy, active lifestyle away from screens.
- **Confidence and Independence:** By participating in "challenge by choice" activities and learning to identify and manage risks in a safe environment, children develop self-esteem, resilience, and independence.
- **Social Skills:** The centre offers an informal, exciting environment where kids can socialise, make new friends, and work together on team-based challenges, which helps them become more socially confident.
- **Connection with Nature:** Spending time in the 130-acre natural setting with lakes and woodlands helps children gain a sensory understanding of the world, fostering a valuable appreciation for the environment.
- **A Change of Scenery:** The outdoor setting provides a welcome change from the traditional classroom or home environment, which can re-energize children and make learning feel fun and adventurous.
- **Qualified Instruction:** All activities are led by qualified, enthusiastic instructors, ensuring a safe and positive experience while guiding children through new skills and challenges

