

Outdoor and Adventurous Activities

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This Chapter considers the role of Outdoor and Adventurous Activities in the Primary School. It is divided into two distinct sections.

The first section outlines a rationale for Outdoor and Adventurous Activities as an integral part of children's learning.

The second section looks at how schools can achieve this.

Introduction

The global COVID19 pandemic highlighted the importance of access to the outdoors and in particular green spaces (BMJ, 2020) compounding existing concerns in society about the lack of opportunities for children to roam and play in green spaces (Louv, 2005; Gill, 2007; API, 2019). The continuing developments in technology and the loss of green spaces available for children's play in both urban and rural areas inevitably means that children spend more of their leisure time on electronic games, in front of televisions and computer screens, as such growing up without the same opportunities for physical and free play that were experienced by past generations (Palmer, 2006; API, 2019). This has raised concerns about levels of sedentary behaviour in children (Gray et al., 2015). Allied to this is an increasing awareness of the outdoor environment as an integral and valued resource for children's learning and development (Louv, 2005; Waite, 2010; Wilson 2012), in particular the natural environment, where learning incorporates increased levels of physical activity (Dyment and Bell, 2008; Gray et al., 2015) improved motor development (Fjortoft, 2004, Goodway et al., 2019) and increased opportunities for developing creativity (Hyndman and Mahony 2018).

Outdoor and Adventurous Activities, a must for Physical Education

This section explores existing research and literature that create a strong rationale for Outdoor and Adventurous Activities being a part of all children's Physical Education and wider learning experiences. The field is extensive, and so for the purpose of this chapter, key themes that are particularly relevant to the primary school are considered under separate sub-headings. Although each aspect cannot be discussed in great depth, the aim of this chapter is to give the reader an understanding of the full potential of this area of the curriculum, and the possible consequences if pupils do not have opportunities for Outdoor and Adventurous Activities.

The outdoors for supporting early movement -link.

The importance of movement in Physical Education is obvious, but how that early physicality affects a child later in school, in physical education and all aspects of learning, is something that not all teachers are aware of. Early movement experiences are vital for brain development. It is the motor and sensory input experienced in early childhood that 'will 'mold' the neurons and interconnections to form sensory and motor processes' (Ayres, 2005 p 37).

The development of balance is particularly important, children need to develop good gravitational awareness in order to be able to sit, walk run and move with competence. This development of balance and postural control is supported by visual and motor systems. The training of these systems takes place gradually over at least 7 years, but also continues through puberty and beyond (Goddard Blythe, 2005). If this system does not have the necessary stimuli and experiences needed to mature, then children may have problems later in life. As Blythe and McGlown (1979) explain; 'Immature vestibular functioning is frequently found amongst children who have specific learning difficulties such as Dyslexia and Dyspraxia, problems of attention, language impairment, emotional problems (cited in Goddard Blythe, 2005 p17).

The increase in the number and variety of baby gadgets available for parents has meant that busy parents are able to entertain babies with relative ease. A baby may be in a car seat, bouncy chair or buggy for much of the day, with little chance for movement, and due to the seat design the baby is supported and has no need to develop core stability and balance. The baby can only interact with its immediate surroundings; opportunities to explore the world are extremely limited. The consequences of this are becoming evident in our schools, with young children unable to sit properly on chairs and lacking the strength and stability required to develop fine motor control.

Children need rich movement experiences, involving, crawling, climbing, swinging, balancing, and inverting the body to ensure maturation of the systems required throughout life. With increasing numbers of children struggling in schools due to poor concentration, a lack of co-ordination and balance, and delayed speech and language many pupils follow motor programmes as an intervention. These children often find Physical Education particularly challenging, often missing lessons with a note, forgetting kit, or are so slow changing that they miss much of the session. Ironically, these are the pupils that desperately need good movement experiences.

Outdoor play and adventure can be a means for all pupils to experience high levels of movement in a low stress, meaningful context. Giving pupils opportunities to use the outdoors as an integral part of their learning in natural settings in particular, results in improved motor development. The landscape provides dynamic and rough playscapes that challenge motor activity and obstacles that encourage a variety of bodily skills (Fjortoft, 2004). 'Outdoor playgrounds develop strength, flexibility and co-ordination due to the types of activities facilitated by play equipment such as climbing swinging and balancing' (Munoz, 2009 p11). The loose parts and variety of affordances offered in outdoor and natural settings give opportunities for rich complex movements that support not only balance, strength and co-ordination but also creativity and emotional regulation (Hyndman and Mahony, 2018; Fiskum and Jacobsen, 2013).

Waite (2010) highlights wider benefits suggesting learning outside the classroom enables observation of children's natural behaviour that is not tied to a particular learning outcome. Teachers have opportunities to view the holistic social and emotional aspects of learning that have long been linked with Outdoor Education. This holistic nature of learning in the outdoors gives young children, exploratory experiences in a meaningful context, enabling them to develop an understanding of the embodied self and creating 'opportunities to become risk literate and physically literate' (Maude, 2010, p 113).

Health and Well-being

The Covid-19 pandemic of 2020 magnified the crucial importance of physical activity in the maintenance of health and well-being (Lemmey, 2020) and research shows that learning in a natural environment incorporates increased levels of physical activity helping significantly towards children achieving their recommended daily activity levels (Gray, 2015). It also encourages greater levels of activity in girls than in normal schooling (Groves and McNish, 2008). However, it is not just physical health that is improved, contact with nature is also needed to maintain mental health. Louv (2005) highlights the increase in psychological and emotional problems in young children, who have reduced contact with natural environments. He goes so far as to identify this as 'Nature-deficit Disorder (which is) the human costs of alienation from nature, among them: diminished use of the senses, attention difficulties, and higher rates of physical and emotional illnesses' (Louv, 2005 p36). Regular interaction in nature is associated with overall general health and well being (Chawla 2015; White et al., 2019) and of particular relevance to a post pandemic world, increased immune regulation (Roslund et al., 2020).

In the report 'Natural Thinking', Bird (2007) also makes a strong case for the importance of engagement with nature linked to a variety of issues. He identifies evidence that suggests nature impacts positively on children's concentration, reducing levels of stress and aggression. It can be used to treat children with poor

self-discipline and ADHD (Attention Deficit Hyperactivity Disorder) as Louv (2005) describes the restorative quality of the environment as “Nature’s Ritalin” (p 105). More recently Bragg et al (2013) report on green outdoor spaces as ideal surroundings that leads to enhanced connectedness to nature.

Equal Opportunities

The use of Outdoor Education to engage disaffected pupils is widely acknowledged. There are those that would argue Outdoor and Adventure Activities should not be in the curriculum, that it is not a subject, or area of activity, but a way of experiencing learning and a means of personal growth. Perhaps this difference is a reason in itself to ensure all pupils can experience it. There is no doubt that for most schools the types of specialist experiences that outdoor centres can offer would be impossible and the unique value of a residential experience should not be replaced. With growing numbers of pupils experiencing regular Adventurous Activities and needing to extend these experiences beyond the school curriculum, the demand from schools for children to spend time (post pandemic) experiencing the unique learning opportunities that centres offer may even increase. Recognising the threat to LEA outdoor education centres UK Outdoors (2020) has emerged as a unifying voice to lobby the government to save outdoor education and ensure centres remain open to make their unique contribution the needs of children and schools

Physical Education in schools has long been dominated by sport and traditional games in particular (Kirk, 2010), and although what schools are able to offer is a ‘curriculum version’ of Outdoor and Adventurous Activities it is still a means to engage and motivate the many pupils for whom the traditional Physical Education experience lacks meaning. The unique nature of many of the challenges in Outdoor and Adventurous Activities mean that pupils of all abilities and disabilities are able to engage in the processes required for tasks. This gives an opportunity for those that are not ‘sporty’ to engage in physical activity and be successful, ‘key in becoming and remaining intrinsically motivated’ (Glover and Anderson, 2003, p11). Unfortunately,

it has all too often been an aspect that only takes place at a residential visit, or as occasional orienteering and problem solving around the school grounds (Williams and Wainwright, 2011).

In light of this and in response to the increase in Models Based Practice in Physical Education (Kirk, 2010; Casey, 2012) we have outlined a pedagogical model for outdoor and adventurous activities in Physical education (Williams and Wainwright, 2016a, 2016b; Williams and Wainwright, 2020). In this model we originally identified four key features that should be present in Outdoor and Adventurous, and this has since been developed to six. These key features are:

Mainly outdoors

Whilst we emphatically believe in the value of learning activities being located outdoors, we do not believe that you need to be outside every time an OAA lesson is planned. What matters most is that the appropriate location is chosen to support children's learning and sometimes this will mean that the class stay indoors (for example when planning an activity or using modern technologies), they make use of undercover areas linking classroom to outside areas, they visit the local indoor venues such as climbing walls or swimming pools or when the weather is so bad that it would be a health risk. Indoor experiences should not, however, constitute the main or most challenging locations for school focused OAA. Indoor locations simply cannot sustain the same progressive levels of challenge that are required to build skills, knowledge and confidence as can be achieved by being outdoors.

Experiential learning

Most commonly understood in practice as Plan-Do-Review, this is a familiar and trusted approach used by teachers throughout the world and supports pupils' direct involvement in all stages of the learning process. On a day-to-day level experiential learning requires pupils to develop the basic physical skills, techniques and knowledge in a range of OAA and take advantage of local opportunities that are immediately accessible and part of local popular culture. What matters in these

activities is that children are not only physically active in the experiences, but they also have a contribution to make to the planning and reviewing of their learning before and after the activities have finished. Adopting an experiential learning approach provides the best learning opportunities for children to become confident and competent in OAA and builds self-esteem and personal growth to lay the foundation for future lifelong activity (Blagrove, 2015; Bailey et al., 2009). At the same time active participation allows pupils to appreciate different movement forms not accessible in other areas of physical education due to the unique affordances offered by different outdoor locations (Sahram-Brymer et al., 2018). In so doing, it makes meaningful connections between what is learnt in physical education and what can be done as a recreational activity in the local community as part of a physical literacy journey throughout life (Whitehead 2013).

Challenge by Choice

Challenge by choice recognises the importance of pupils taking increasing responsibility for their own learning and is fundamental to all high-quality teaching. Challenge by choice is not an excuse to not take part. On the contrary it encourages pupils to be MORE active and engaged in their own learning with the support and encouragement of teachers and peers to challenge them to push through their perceived boundaries and achieve new learning. From the teacher's perspective allowing children more choice in their learning has emerged as a key principle upon which curriculum reform over the last 10 year is based, in particular in curriculum developments that aim to provide authentic autonomy supportive learning such as the New Curriculum for Wales (Welsh Government, 2020). Whilst Gould (2011) has elaborated on the necessity for children to be outside to learn likewise, challenge by choice in OAA also requires negotiation with parents who may be uncomfortable with the idea of their child getting dirty, cold, scratched, bruised or upset as part of the physical education experiences (Unicef, 2018)

Managed Risk

Outdoor play has also been linked to the development of children's understandings of risk (Frost, 2006 cited in Munoz, 2009). This is particularly of relevance in light of the much publicized 'cotton wool' society, where children who play in parks and outdoor spaces are usually under the supervision of their parents. Children become more dependent on this supervision and ironically, less careful (Walsh, 2004). A decrease in the amount of time children spend in free play, roaming woods and parks, results in a loss of opportunity for children to learn about risk and Gill (2007) suggests learning to be safe is about understanding risk. By seeking to protect children, parents are potentially putting them in more danger. Children inevitably seek adventure and challenge and if they have no sanctioned opportunities for this, they may seek out their own and be exposed to greater risk. Or, if as Mortlock (2009) suggests adventure in the natural environment has been replaced by adventure in the form of computer games, then children are not having the necessary real experiences from which to learn to make good judgments. Gill (2007) gives a further argument for exposing children to risk: '...that children build their characters through facing up to adverse circumstances' (p16).

Managed risk undoubtedly presents the greatest challenge for teachers delivering school-based OAA as it recognises there has to be an element of uncertainty over whether pupils can meet the challenge before them. Gill (2007) is one of many who have argued against the limiting impact of an increasingly risk-adverse and litigious society upon the education practices of schools, in which children are not encouraged to take risks or make decisions about personal safety because they have so little experience of the outdoors as a place to play and learn (Beames & Brown, 2016; Breivik, 2007; Priest, 1999). Recognising these limitations and the concerns of teachers themselves (Brown, 2006) Williams and Wainwright, (2016b) suggest that teachers focus on the social, emotional and psychological 'risks' that children face when they take part in OAA in and around the school. Such an approach aligns with a teacher's broader pastoral support for children to ensure they work within their abilities and outdoor skills but also make better use of local providers, develop

outreach relationships with an outdoor centre and prioritise professional development opportunities linked to adventurous activities in the curriculum.

Connection to Place

Self-evidently 'place' is all around us and we cannot go anywhere without being in a particular place. Connecting to Place means developing an increased understanding and awareness of the place where the outdoor activities occur. However, for far too long outdoor educators have been more concerned with developing children's outdoor activity skills than they have been on connecting them to the places (environments and locations) in which those experiences and that learning takes place. Loynes (1998) talked about the McDonaldisation of OAA in which 'Adventure in a Bun' activities could be experienced in 'Anywoods' (Baker, 2005). More valuable for learners is when aspects of the broader learning environment are explored such that history, culture, landscape, and ecology are brought to life to contextualise children's learning, knowledge, pride and identity with their local places. Place has a present, a past and a future and Beames (2006, 5) suggests a focus on place 'should be part of the learning experience that participants take away from their outdoor activities'.

Transformative Learning

Transformative learning is at the heart of what teacher's do. Not only do teacher's pass on important subject knowledge and skills but they also introduce and begin the process of engaging children with the harsher realities of life that they will have to meet as they grow older. Across the curriculum schools already do this in introducing children to issues of social justice, inclusion and poverty etc. In this respect OAA provides the perfect vehicle for children to learn more about the greatest threat they will face as they grow older that is climate change. OAA in and around the school grounds allow children to not only to learn through adventure but also to come face to face with the consequences of people's irresponsible behaviour. Environmental awareness has also long been associated with learning in the outdoors. At a time when the earth's resources are increasingly under pressure there has never been a

greater need to develop children's understanding of these issues, and to foster in them the desire to safeguard the environment. Responsible behaviour, environmental respect and adventurous outdoor learning go together. Children engaged and learning in the outdoors develop a greater connection with nature (Tunncliffe, 2008). This recognition is nothing new, and work by Steve Van Matre and Joseph Cornell in the 1970s focused on engaging young people with nature, through multi-sensory approaches to learning in the outdoors. More recently David Attenborough and Greta Thunberg have emerged on the world stage to as international advocates for governments to do much more to protect nature.

How does a school put this into practice?

This section will discuss practical issues for implementing Outdoor and Adventurous Activities in Physical Education and across the curriculum. Every school is unique, and one of the challenges for teachers is knowing what will work for their school. There is no easy one size fits all toolbox; every local area and community is different, with a variety of needs and expectations. The individual abilities of pupils, their readiness for activities and challenges, and their perceptions of adventure may be very different in each context.

In every school the grounds, facilities and range of staff expertise will be different. As well as considering the resources in the school, opportunities in the local community also need to be assessed. Parents, clubs and organisations may be able to support Outdoor and Adventurous Activities and offer extra-curricular opportunities. Three approaches provide the best way forward for teachers to increase OAA into the school day: zoning the local area; developing the school environment and using micro-adventures.

Zoning the local area

Bringing OAA into the school day can best be supported by adopting the ‘four zones of learning’ approach suggested by Beames, Higgins, and Nicol (2012). In this approach outdoor learning spaces are identified radiating outwards: from the school, to local neighbourhood, to day excursions or field trips further afield, and finally to residential outdoor centres. This is not to suggest that outdoor education centres have no role to play in a school-focused, models-based approach to OAA. Rather in this approach centres are used at the culmination of a young person’s learning (such as at the end of a key stage) that is made memorable because a stay at an outdoor education centre is aligned to and further progresses pupils’ formative school-based experiences of adventurous activities. Making full and better use of the many outdoor opportunities and facilities available in these different spaces greatly increases the range of experiences available for OAA and does not require the teacher to have specialist skills or knowledge. Crucially it also allows for OAA to be developed in schools that are located in heavily populated urban areas (Beedie, 1999) as well as improving school–community links.

Developing the School Environment

There is a growing focus on the design of children’s play spaces and the need to facilitate access to outdoor spaces where children can engage in outdoor activities (Munoz, 2009). Not only are the designs important, but the way in which schools use their grounds and access the local environment will impact on the quality and amount of outdoor learning available to the children. Many urban schools may not have access to the types of landscapes and wild places that Mortlock (2001) used for adventurous activities when working with children and this will generally remain the role of Outdoor Centres. However much of the research evidenced by Bird (2007) demonstrates the impact of nature to be so profound that even minimal exposure to nature can be beneficial (Taylor et al, 2001-Cited in Bird, 2007). Much can be done with limited space and Moore and Wong (1997, cited in Munoz, 2009) highlighted a wide range of benefits to pupils and staff resulting from the transformation of a tarmac yard into an ‘environmental yard’ (p15) with the addition of natural elements.

Key to the success of most school ground developments is the involvement of the pupils. School and class councils need to be consulted about the things they want in their school grounds. Children need to be observed to see how they play, the range of activities and areas and landscapes that they prefer.

Many books and websites are available to support and give ideas for school ground development such as the use of areas, zoning and resourcing outdoor spaces. (see useful references and resources)

Micro-adventures

According to Humphreys (2014, 14) a micro-adventure is an experience that is 'close to home: cheap, simple, short and very effective. It still captures the essence of big adventures: the challenge; the fun; the escapism; the learning, and the excitement. All of these things remain.' Micro-adventures offer teachers and children the best opportunity to bring OAA into the school day because fundamentally they are accessible and inclusive of everyone. No barriers of cost, equipment or access exist and perhaps most importantly they can be planned to fit into the structured timetable of the school day. Using micro-adventures as an approach to delivering OAA takes away the reliance on the LEA outdoor education centre and allows teachers not only to bring genuine 'adventure' into the PE curriculum but it also better prepares children for the times when they do visit a centre (Brilliant Residentials, 2015) to ensure that there is a closer alignment between school based OAA learning and extending children's OAA experiences with the specialist support of OE centre. In addition, micro-adventures offer a fantastic opportunity for children to take ownership of their learning in deciding what and where they would like to take part in OAA.

Planning and progression

Curriculum expectations in the UK require children to undertake activities that involve problem solving, co-operation, challenge and the use of the outdoors. These are usually delivered in schools in the form of team building and problem-solving activities and orienteering and schools can further introduce camp craft and

bouldering with the use of the 'Outdoor Learning Cards' produced by The Outdoor Education Advisors Panel (OEAP).

Activities

Activities will be considered in turn and mapped out from early years through to the end of Key Stage 2. This is **NOT** a tick list of activities, but ideas to help initiate or develop the delivery of Outdoor and Adventurous Activities. All activities should to be used only if developmentally appropriate for the child.

Campcraft / shelter building

These activities begin in their simplest form with very young children creating dens under a table or chair, or in boxes. Older Key Stage 2 children may be able to plan and carry out a camp on a school site or in the local area.

This may develop through the use of some of the following activities:

- Dens in class for child and / toys
- Dens outside for child and / toys
- Dens in pairs and groups
- Dens to shelter from the sun/wind/ rain etc.
- Dens / shelters to read/listen to stories / tell stories
- Dens/shelters for relaxing / thinking /hiding....etc.
- Dens / shelters made out of a variety of material and fabrics
- Dens / shelters made from natural materials
- Dens / shelters using purpose made equipment, poles and bivvies.
- Explore the properties of a range of materials for shelter
- Identify appropriate sites for shelter in a variety of weather conditions
- Become familiar with a variety of tents and be able to use them.
- Learning to cook safely in a camp / outdoor setting.
- Know the range of equipment needed for camping and be able to use it safely.

Orienteering

Orienteering begins initially with young children being able to distinguish an aerial view of an object. This begins with small toys and objects in the class. Older Key Stage 2 children may be able to undertake orienteering races in and around the school site and in the local environment.

This may develop through the use of some of the following activities:

- Pick out pictures that match a view of an object
- Matching games using pictures of aerial views
- Drawing aerial views of a variety of objects
- Drawing plans of desks, table tops objects on trays
- Drawing plans of class
- Treasure hunts
- Photo trails
- Taking photos and creating photo trails
- Drawing plans of playground / areas of the playground
- Orientation of map
- Games to learn compass points
- Identifying symbols on plans / simple maps
- Identifying and using a key
- Drawing a map of the playground
- Creating a key for a map
- Using own maps for treasure hunts to identify locations of clues
- Matching symbol games for official map symbols
- Star course orienteering activities using orienteering map
- Use of orienteering maps to find objects on school grounds.
- Variety of orienteering courses on school site.
- Use of compass and bearings.
- Map work / orienteering in the local environment.

Bouldering

Climbing and bouldering are body management skills, and when watching an experienced climber move up or across a route, the similarities to dance and gymnastics become clear. There is fluidity to the movement, which is balanced and controlled; the climber appears to flow with a series of smooth linked actions. For children to develop their skills for climbing, this begins with early body management, balance posture and co-ordination. Children are natural climbers and most will be climbing in many aspects of their play when given the opportunities. Children will start to climb on small pieces of equipment and frames in the early years, and by the end of Key Stage 2 may develop into confident climbers on a school bouldering/traversing wall. This may develop through the use of some of the following activities:

- Climbing on and over apparatus and soft play equipment
- Climbing on small logs
- Using purpose-built frames in the hall / playground
- Climbing up steps for slides
- Climbing ladders on frames
- Moving around uneven natural terrain, with slopes and mounds.
- Climbing small trees and fallen trees on woodland visits / forest schools
- Climbing on rocks and boulders in school grounds / local environment / local woodlands.
- Hanging and swinging from monkey bars / similar equipment in school hall / grounds.
- Climbing on and using trim trail equipment, involving balancing, and swinging.
- Learning to spot for a partner for a bouldering wall.
- Learning weight management using footholds on bouldering wall.
- Travelling techniques for use on the bouldering wall.
- Foot placement.
- Hand holds.
- Body positions.
- Variety of games to practice and refine skills.
- Visit to local climbing wall.

Team Building / Problem Solving

Team building and problem-solving activities are perhaps the most used and versatile aspect of Outdoor and Adventurous Activities. These activities are particularly relevant in the present climate with the emphasis on developing critical thinking and communication skills. Developing co-operative skills are particularly important for young children starting school, who may need to develop their social skills. By the end of Key Stage 2 pupils will be able to solve demanding challenges in creative and innovative ways drawing on the abilities of all members of a group, such as the 'toxic waste' challenge (Bucket in a rope circle, which has to be removed without anyone touching it). The challenges listed are well known team building activities, descriptions of them can be found in books, in the Internet and on the Outdoor Learning Cards.

Team building skills may develop through the use of some of the following activities:

- Early co-operative games in circle time
- Taking circle time games to the hall and outside
- Parachute games
- Keep up games with balloons
- Moving balloons through raised hoops
- Frozen bean game
- Travelling in pairs or small groups whilst keeping contact with each other.
- Magic carpet
- Islands
- River crossing games, across hall or playground
- Bench sorting ordering games
- Human knots
- Spider web games
- Electric fence challenges
- Obstacle courses
- Blind trails
- Robot races

- Leaky tube
- Roller ball
- Toxic waste.

There are many more examples of activities available on the Internet, and in books, as well as training and resources that have been produced to support the curriculum, such as the Outdoor Learning Cards produced by the OEAP.

Schemes of work and lesson ideas for Outdoor and Adventurous Activities exist in most local authorities, with many more available on the Internet.

Examples from schools

This section contains examples of how some schools have delivered Outdoor and Adventurous Activities. These examples show a range of approaches. Every school will have different facilities and needs, but some of the strategies used by other schools may help to stimulate ideas for different contexts.

Key Stage1

Year 1/ Foundation Phase.

Developing early orienteering skills, teamwork/problem solving and communication, mathematics, geography and literacy.

Year one pupils have been looking at shape in mathematics and have drawn plans of the playground. The children choose simple symbols to represent aspects of the playground. The teacher hides small bags around the grounds with words in them, and marks on the children's map where the bags are hidden. The children work in groups with a map to find the bags and collect words. They then assemble the sentence from the collected words. The sentence asks them to choose a good place to listen to a story in the school grounds. The group must all agree on the place.

There are many variations on this type of activity; the finding of the bags can be in a PE lesson, as simple orienteering activity, or a way of ensuring a physical and outdoor approach to other curriculum areas, leaving the PE lesson time still available for more PE!

Mixed year groups, reception year1 and year 2 / Foundation Phase.

With a mixed age group, the teacher needs to ensure that there is some focused input with the groups.

The session involves Problem solving /teamwork.

Sending and receiving / ball skills.

Treasure hunt / orienteering.

Bouldering wall.

The Teacher has the support of a Teaching Assistant. The pupils are put into four groups.

Group 1 Problem solving (older year 1 and year 2 pupils).

The children have a problem-solving task in a large construction area outside in the school grounds. The area has an assortment of tyres, logs, crates and planks, following a theme in the class the children are challenged to construct a fire engine from the materials available. The group work on this task, supervised from a distance by the teaching assistant.

Group 2 bouldering wall (older year 1 and year 2 pupils).

The children have been taught to spot for each other in a previous Physical Education session. They use the Outdoor Learning Cards to remind them what to do and practice traversing across the area in pairs.

Group 3, Treasure hunt / orienteering (reception and year 1 pupils).

Working with the teacher, the children are given maps of the ground and are sent to find 'treasure' from marked places on the maps. The treasure is a clue, which is a mathematical problem. The children work out the answer in their pair and return to the teacher to explain their answer, before going to find the next.

Group 4 sending and receiving/ball skills (reception and year 1 pupils)

The children are consolidating previously learned skills, they have a variety of small equipment and balls of various sizes and weights, they devise games in pairs or small groups to practice throwing and catching. The teaching assistant supports the group.

Groups 1 and 2 swap over half way through, groups 3 and 4 swap over half way through.

Key Stage 2

Year 4 Physical Education

Shelter building

The pupils are using map skills learned in previous Outdoor and Adventurous Activities sessions to collect the equipment needed for this session. The class is split into groups. Each has a map of the grounds with numbered locations. The groups find the locations and collect equipment that is there (an assortment of materials, e.g. ropes, bungies, pegs and tarpaulins). They bring all their equipment to the final location on the map and use it to construct a shelter. Once each group has finished, they sit in shelter and reflect on activity. They have a list of initial questions to consider for reflection but may develop these. Once they have all finished the groups inspect and evaluate each shelter to identify good aspects and areas for improvement.

Year 5 Physical Education

Micro-adventure

This can be done in an urban or rural setting. Progressing from the camp in the school grounds and using skills learnt with outdoor learning cards on camp craft, journeying and orienteering, the children plan a micro adventure to a local park or woodland. Once there they make a shelter and carry out a range of activities that can connect a 'little issue' to a 'big issue' such as tree survey, litter observation connecting to climate change, or new housing developments linking to loss of green space and health issues. This activity demonstrates all of the key features of the OAA pedagogical model as it allows for experiential learning, mainly outside, managed risk and challenge by choice. The use of the local area builds connection to place and the study of 'little issue - big issue' gives an opportunity for transformative learning.

Year 6 Problem Based Learning (PBL)

Problem based learning is a powerful tool for developing pupils' independent learning strategies. Pupils are given a problem / scenario that they work through in groups to identify key issues.

The scenario:

'A year 6 class from our partner school in Finland are coming to stay. The head teacher has decided it would be good for our class to take them on a walk in the local environment and camp in the school grounds. We need to plan, organise and prepare for the visit'.

The groups identify several aspects to research and prepare/ practice:

Map reading skills for the local environment.

Areas of LOCAL interest, historical, environmental, geographical.

Hazards and risk assessment.

Fitness and physical capabilities of the group.

Weather.

Clothing

Camping area.

Camping and cooking equipment.

Food.

Activities to do

Borrowing camping equipment or sleeping in the classrooms.

Comparing school/life experiences

Problem Based learning requires careful planning. The teacher's role is more of a facilitator. Resources need to be well prepared enabling the children to research and access information and equipment independently. It may be challenging for teachers to let go and allow children to lead their learning, but this is part of the ethos of Outdoor and Adventurous Activities.

Conclusion

By exploring the impact of Outdoor and Adventurous Activities on children's health, wellbeing and aptitude for learning this chapter has sought to develop a rationale for ensuring that all pupils experience this aspect of the curriculum. It is hoped that the discussion raises questions and highlights the importance of the outdoors as a vehicle for learning. The research and literature suggest that the potential impact is considerable. Changes in society, children's preschool experiences, and in their play opportunities mean it is crucial that schools act to ensure children have high quality Outdoor and Adventurous Activities in Physical Education. It is also vital that children have the chance to engage in outdoor learning opportunities across all aspects of the curriculum. The challenge is for schools to recognise this and act to ensure meaningful, challenging outdoor experiences for all pupils, helping to equip them for life in the 21st century.

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