



# OUTSIDE IS WHERE WE NEED TO BE

**A guide to providing optimal outdoor environments in early childhood settings**

Outdoor play environments that are well designed can be full of wonderful learning opportunities for children of all ages

**Cheryl F Greenfield**



## Acknowledgements:

### Manukau Institute of Technology Early Childhood Outdoor Reference Group Members:

Cheryl Greenfield  
(Co-ordinator)

Ross Archer

Chris Bayes

Jan Beatson

Julie Chambers

Gill Connell

Wendy Gray

Barbara Lingard

Robin Quigg

Jill Rice

Alison Stephenson

Mandy Wilson

Geoff Wood

Photographs used by permission  
and contributed by:  
Ross Archer, Thelma Chapman,  
Cheryl Greenfield, Barbara  
Lingard, Jill Rice.

Published by Manukau Institute  
of Technology, Social Sciences  
Department 2007 (+64) (9)  
9688000

ISBN: 978-0-473-12861-0

The term children in this booklet  
is inclusive of infants, toddlers  
and young children.

Funded by: Institute Of Technology  
and polytechnic business links fund.

Graphic Design: Becky Connell

## Reference Group Purpose and Principles

**Purpose:** To promote reciprocal advice and guidance between playground landscapers, designers, manufacturers, early childhood education researchers, educators and teachers.

### Principles:

1. Uphold the child's right to access and experience outdoor environments and be extended in outdoor play.
2. Supporting you to provide children with safe and challenging activities.
3. Raise awareness of the absolute necessity of allowing young children regular access to quality outdoor play or just to be in the outdoors.

### Whakatauki

Unuhia te rito o te harakeke kei whea te kōmako e ko?

Whakataerangitia – rere ki uta, rere ki tai;

Ui mai koe ki ahau he aha te mea nui o tea o,

Māku e kī atu he tangata, he tangata, he tangata!

Take away the heart of the flax bush

And where will the bellbird sing?

Proclaim it to the land, proclaim it to the sea,

Ask me what is the greatest thing in the world.

I will reply – it is people, it is people, it is people!





## Foreword: Being Outside is Essential for Holistic Growth and Development

It is well established that the environment we place children in strongly influences their behaviour and has a profound effect on the learning that occurs there for children. Well designed environments also help to create a child's sense of 'self' (Greenman, 2005). Many early childhood educators, centre owners and playground designers are committed to creating outdoor learning environments that are well designed to optimise play opportunities for children.

Well designed and maintained outdoor environments can have a positive and powerful influence on children's development. Spaces speak to us and load our bodies with sensory information. The environment is crucial in supporting the relationships and experiences that occur within it (Greenman, 2005). The centre environment is commonly referred to as the child's third teacher (Gandani, 1993) and forms an important part of the curriculum (Olds, 1982).

*Te Whāriki* – the New Zealand Early Childhood Curriculum, (Ministry of Education, 1996) includes the words "children experience an environment where..." This suggests that there is an expectation that adults must be thoughtful about the environment they provide for children. This notion is supported in the Quality Teaching Early Foundations: Best Evidence Synthesis. Farquhar (2003) notes that "pedagogy is concerned with ensuring that the organisation of space, activities and density is optimal for children...and that the organisation and co-location of play activity areas provides potential for shaping and enhancing children's thinking and learning" (p. 39).

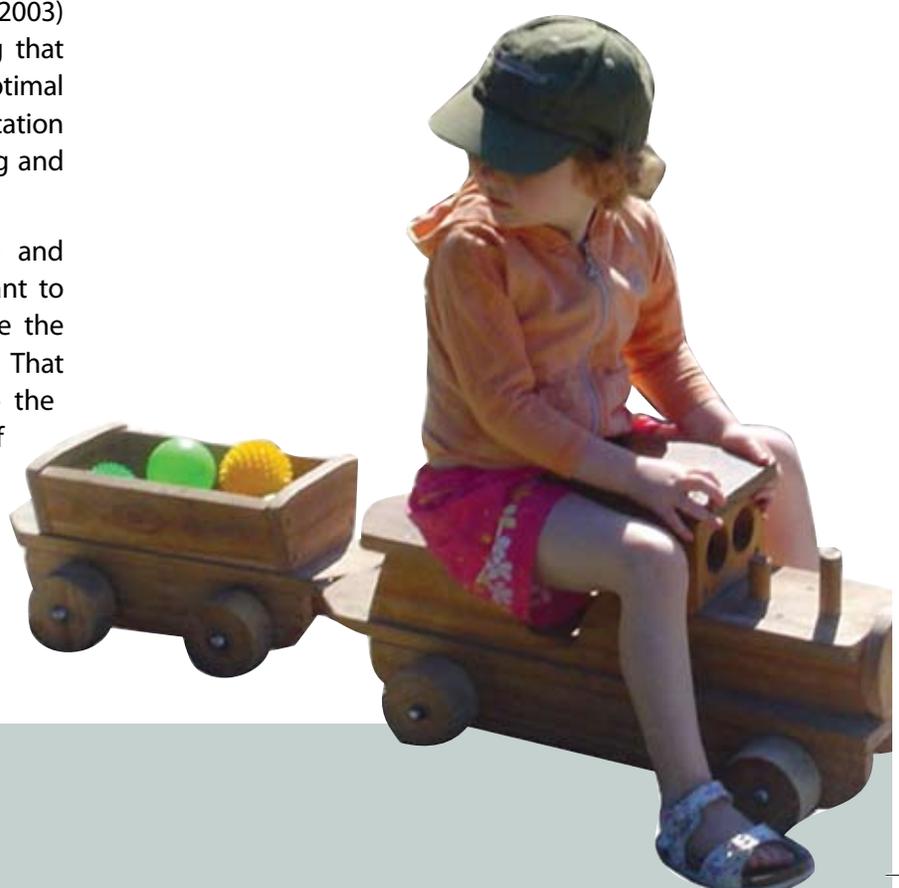
Two New Zealand researchers Greenfield (2007) and Stephenson (1998) found that young children want to play outside. They also believe that children have the right to play in optimal outdoor environments. That is, outdoor settings that: awaken their senses to the beauty, complexity and ever-changing dynamics of the natural world; that honour children as curious and motivated to explore and problem solve; and that allow children to be physically challenged, to practice and repeat experiences, and then move on to new challenges (Greenfield, 2007).

The purpose of any early childhood outdoor setting is to ensure that the necessary stimuli are present in order for children to participate in physically active play. This in turn supports children's learning.

The 'Draft criteria for the licensing or certification of ECE Services' (Ministry of Education, 2006) indicates a subtle push to ensure children get the access to the outdoors they require. Criteria 2.17 reads "Outdoor activity space is: directly connected to the indoor activity space so that children attending have safe and independent access... not unduly restricted by Resource consent..." (p. 20). It also states that the "underpinning belief is that opportunity for outdoor play is an important feature of education and care of young children in NZ" (p. 20).

Children need teachers who appreciate and value the opportunities for growth and development the outdoors can provide. Teachers need to have the knowledge, skills and commitment to ensure that young children's experiences in the outdoor areas are as rich and meaningful as possible (Greenfield, 2007).

Optimal outdoor environments are critical, and being outside is essential: as Jack, one child in Greenfield's (2007) study simply stated: "children like to play outside".



## The themes of this booklet are presented from the child's perspective

Each section covers a particular aspect of what children find so appealing about being outside, as well as covering the essential contributions that outdoor play environments provide. Each section provides theoretical information based on current research and includes photos and ideas of how you as an early childhood teacher can provide an optimal outdoor environment.

### Outside I need:

- Time to play
- A variety of spaces and areas
- To be physically active
- Risk taking opportunities - yet feel secure
- To have contact with nature and the natural world
- Rich sensory experiences
- Opportunity to create, rearrange and transport
- Adults that value the outdoors and who will engage with me



## Time to play

“Children experience an environment where their play is valued as meaningful learning and the importance of spontaneous play is recognised” (Ministry of Education, 1996, p.84).

Children need the freedom to choose to be outside for large periods of the day. Their time outside needs to be finely balanced with lots of opportunity for them to do what they choose. As well as these opportunities, sensitive pedagogically sound adult led experiences and extensions will enhance children’s learning and development.

Being outside should encompass a sense of freedom. Watching the clouds, birds or a rainbow brings a sense of rising above the world and embraces the Māori concept of Noa - free from restriction (Pere, 1991).

The play behaviour of young children, in settings where they have very restricted access to the outdoors, is quite different to the play of children who have free indoor–outdoor access (Hutt, Tyler, Hutt & Christopherson, 1989). Outdoor play deprivation can result in more aggressive behaviour and lower levels of meaningful complex play (Frost, 1996).

The children’s perspective across the research to date, is that playing is inseparable from everything they do outside. Like children in overseas studies (Clark & Moss, 2005; Sheridan & Samuelsson, 2001) children in New Zealand studies are also adamant that what they most like about being outside is ‘playing’ (Greenfield, 2004, 2007).

The emotional, spiritual and personal well-being dimension of being outside includes the dreaming, the wondering, the joy and the fun with friends (Stephenson, 1998).

Infants and toddlers belong outside and need as much access to the outdoors as older children. An optimal outdoor environment fosters and challenges the emergence of their sensory and physical skills (Greenman, 2005).

## Questions to ask yourself

- Do children have the freedom to choose whether they want to be inside or outside and can they move freely between the two environments?
- Do children have frequent access to the outdoors in winter as well as in summer?
- Do younger children have as much access to the outdoors as older children?
- Is it teachers or children who choose not to go outside when it is cold?





## A variety of spaces and areas

Children can feel ‘threatened’ as well as ‘distracted’ when areas are far too large or too small or crowded. Optimal outdoor environments provide free running spaces and a sense of enclosure and privacy that allow children to feel that they are away from adult gaze. Though current Ministry of Education requirements is 5 sq. metre per child many experts agree that a minimum of 10 -20 sq. metre is more optimal .

A child’s successful interaction with the physical environment must satisfy three basic needs: the need to move, the need to feel comfortable, and the need to feel competent (Olds, 2001). Being outside provides the is opportunity for free spontaneous movement.

Spaces need to be connected so there is flow, multiple ways of moving around the playground - yet still maintaining ease of supervision. Suggestions to achieve this include using curves not straight lines, and using pathways to link spaces.

Children need spacious environments that provide opportunities for running and chasing games, kicking, hitting and throwing balls and for rough and tumble play. The paths should not intersect other play spaces as this could compromise children’s play in those areas. Graduated sloping spaces as well as flat spaces provide additional challenges and interest, as children are drawn to uncertainty and variation (Gill, 2005).

If your centre outdoor area does not allow for this then it is imperative that you access local parks and green spaces for this purpose on a regular basis. You need to ensure you have an appropriate ‘trips and outings policy’ so that children can experience these places through spontaneous walks and planned excursions.





One of the key attractions about being outside is the freedom to have more choice about where to be and what to do.

**The outdoor environment should include areas such as:**

- Sand play
- Physical challenges
- Experiences in nature
- Covered / protected spaces
- Open spaces
- Garden and plants, trees and shrubs
- Digging areas
- Different access pathways, so children can go down one way and up the other
- Pebble or gravel area that freely drains after rain (NB: not a suitable medium for soft fall surfacing)
- Quiet spaces
- Flexible spaces
- Private spaces

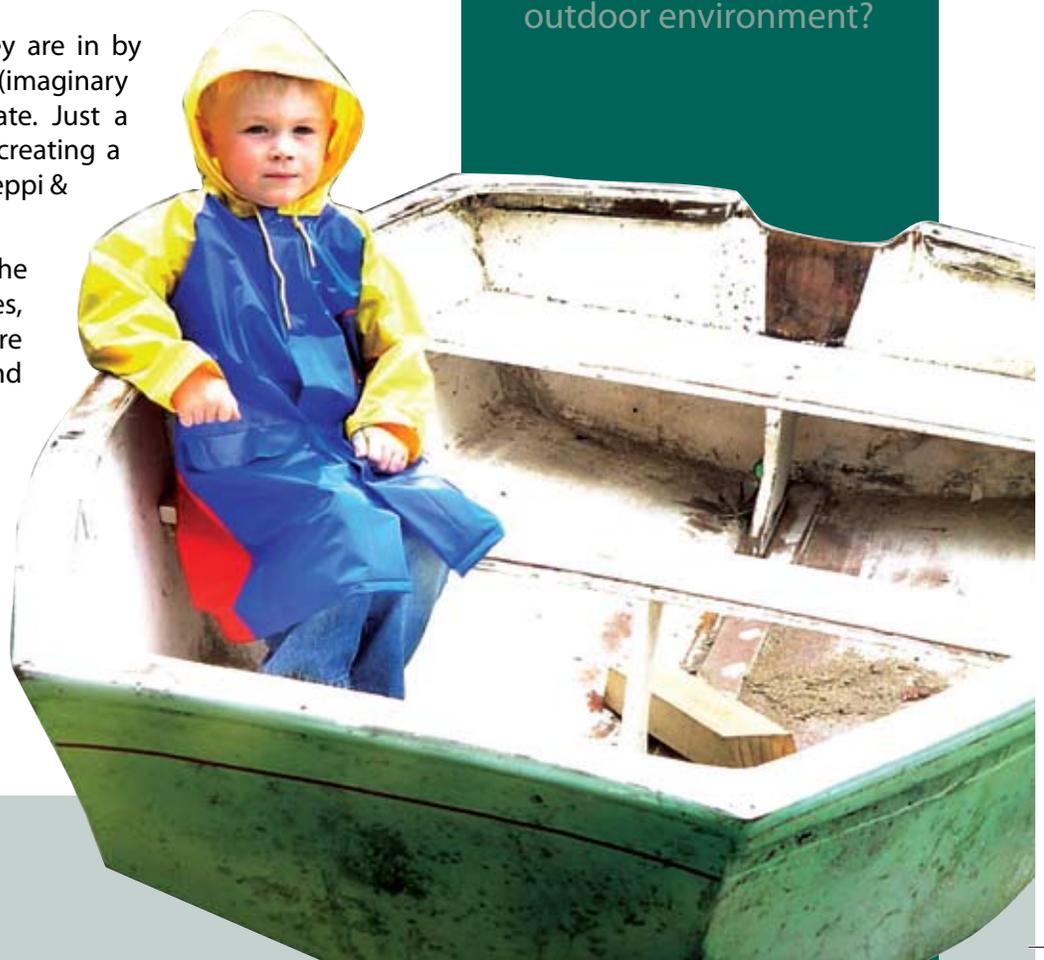
Young children inhabit the space they are in by continuously constructing places (imaginary and real) within the place they situate. Just a few elements and objects suffice for creating a variety of situations and landscapes (Ceppi & Zini, 1998).

Within each space there needs to be the opportunity to reorder, to make choices, to discover, be surprised and explore as well as opportunity for solitary and small group activity is also important (Greenman, 2005).

Play spaces need to be professionally designed, and play equipment certified to ensure compliance with standards (NZ 5828) and to provide appropriate challenges for the different age-groups.

## Questions to ask yourself

- Does your playground effectively cater for all the ages that experience your centre (including the adults)?
- Do you combine equipment and challenges that remain static over time as well as a variety of equipment children can manipulate?
- Can children make journeys through the outdoor environment?



## To be physically active

It is essential that there is provision of diverse equipment and space to cater for a range of physical abilities enabling children to:

- test themselves in terms of strength, mobility and dexterity; enjoy movement for its own sake;
- develop upper body strength;
- connect their body to the environment.

Equipment and spaces are required that encourage vigorous physical activity which promotes the development of neuro-muscular and cardio-respiratory systems.

An outdoor environment needs to provide for crawling, walking, running, climbing, clambering, jumping, throwing, kicking, swinging, sliding, rolling, balancing and bouncing.

Height has been identified as highly significant for children (Corsaro, 1985). Although providing for height can be challenging in terms of safety issues, it is crucial that early childhood centres provide opportunities for climbing especially overhead equipment, such as monkey bars.

*Te Whāriki* states that there needs to be an environment where children develop “increasing knowledge about how to keep healthy; increasing control over their bodies, including locomotor skills, non-locomotor skills, manipulative skills and increasing agility, co-ordination, and balance” (Ministry of Education, 1996, p.86).

The monkey bars emerged as a favourite item in a study by Greenfield (2007b). In this study it was the children who demonstrated that they need to move in complicated ways, that they like to hang upside down and that they valued opportunities for multiple, graduated ways to move. The skills children develop on overhead ladders or monkey bars is called ‘brachiation’ (Sutterby & Thorton, 2005). Brachiation includes coordinated, rhythmic body motion combined with upper body strength. It is important to provide a range of opportunities for children to develop brachiation skills, as individual skills vary widely.

To deny children the opportunity to reap the many benefits of regular, vigorous physical activity is to deny them the opportunity to experience the joy of efficient movement, the positive health effects of movement, and a lifetime as confident, competent movers (Gallahue, 1989).

Taha Tinana is the Māori concept of keeping oneself healthy. This concept is upheld by providing for various forms of physical activity that develop agility, co-ordination, harmony, dexterity, balance and stamina (Pere, 1991) in your outdoor setting.

By encouraging and supporting physical activity, early childhood teachers can help combat the obesity crisis. Pica (2006) suggests that early childhood educators buy equipment that promotes movement, demonstrate enthusiasm for physical activity, and help children understand why movement is essential.





## Questions to ask yourself

- Do you value physical activity?
- Do you realise that movement is as essential as sleep and food?
- Do you provide regular access to a wide range of equipment that allows for children to develop both upper and lower body fundamental movement skills?
- Do you provide opportunities for children to acquire, practice and consolidate a variety of physical skills?
- Do you support children as they practice their skills over and over?





## Risk taking opportunities - yet feel secure

Risks and challenges are part of everyday life, part of children's play, part of learning. If we try and eliminate them then we inhibit our own and children's lives and potential (Greenfield, 2003). "Fearful attitudes and reactions of the people around young children can create an unhealthy aversion to risk and actually stop the child from listening to his/her own inner voice about what he/she is capable of" (Greenfield, 2003, p.5).

The outdoor environment needs to provide challenges and problem solving opportunities as these motivate learning and foster in children the disposition of perseverance (Carr, 2001). The teachers/educators role is to know where to set the limits so that children feel unthreatened, safe and happy yet have many opportunities to engage in risk-taking. The designers role is to ensure a balance of 'safe' places for relaxation and observation, and 'risky' spaces where limits can be pushed. Too little risk and challenge in a playground results in inappropriate risk taking and thrill seeking.

The outdoor environment needs to factor in the variety, creativity and spontaneity that is typical of young children's play.

You can create 'illusions of risk.' When you consider the playground from the child's view, it is then evident that what does not look like a challenge from our viewpoint can be very challenging for a child.



## Questions to ask yourself

- Do the children in your centre have the freedom to actively move, try out new skills, practice them, take risks and be inventive in how they use their bodies?
- Do the children have a variety of challenging equipment to test themselves against?
- What illusions of risk can you create in your outdoor environment?
- Are you full of wonder at what children say and do?
- Do you listen to what children are telling you about what their bodies need to do?
- Is your environment set up thoughtfully so it can provide lots of opportunity for children to acquire problem solving skills?



## To have contact with nature and the natural and wider world

The natural and man-made features of the outdoor environment should stimulate play and learning in a boundless integrated way, repeatedly focusing all the senses in working together (Greenfield, 2007). It has been suggested that the young child's sensory modalities must be stimulated holistically otherwise later dysfunctions can develop (Cosco & Moore, 2001).

Children seek and need to have a "relationship with the natural environment and knowledge of their own place in the environment" as stated in Te Whāriki (Ministry of Education, 1996, p. 90). Early childhood teachers and the centre environment have a role in deepening empathetic connection and expanding connections with the wider world (Gruenewald, 2003).

There is a call for early childhood centres and communities to create the necessary diversity of experience of the natural world to empower children as individuals to "create a new, biologically wise society" (Cosco & Moore, 2001). The implication of this is that early childhood

centres must strive for provision of optimal outdoor environments (physical settings plus wise adults). These environments will support the development of environmental competence, a love of nature, a sense of being part of nature, understanding how nature works, and a recognition that humans are dependent on nature (Cosco & Moore, 2001).

Ohaoha is the Māori concept of economics (food and goods production) and your outdoor environment has the potential to be a place vegetables, herbs and fruit are produced thereby contributing to the economic life of the centre (Pere, 1991). Harakeke for example can be used to make gifts and other items that also support the economic life of the centre and promote a sense of contribution in children.

Your landscape plan could include 'wild areas' that are not over-designed but allow the children to discover, create and connect with the natural world.





A small but growing body of research indicates that daily experience of nature, spending time outdoors in the fresh air and sunlight, being in touch with plants and animals and caring for all living things has a measurable impact on the holistic development of the child (Frost, 2006).

An optimal outdoor setting with lots of 'greenery' has restorative affects on our well being; mentally, spiritually, emotionally and physically (Gill, 2005). All children have the right to breathe fresh, clean air and feel the sun, wind and rain on their bodies.

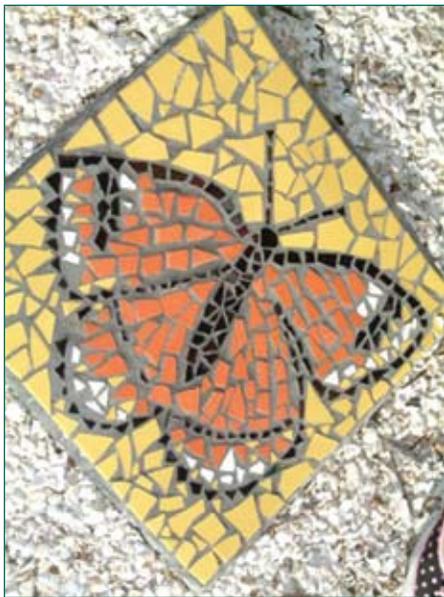
Early childhood appears to be an important time for children to develop an empathy towards the natural world. This can only be developed through free access to a rich natural area of limited size over extended periods of time (Greenman, 2005).

## Consider including:

- Using a range of plants, trees and grasses
- Several sand areas
- A water feature that children can use but is also environmentally appropriate
- Trails of stepping stones
- Edible plants
- Varying levels and mounds
- Places for animals
- Landscape that invites creatures and insects
- Wide range of sensory experiences
- Places for gardening
- Places with sun, filtered light and shade
- Things that make sound (natural and made)
- Embodying the past and the foundation for future generations
- Recycle water by having a small water container that catches water from the roof.



The land (whenua) is fundamental to Māori identity as it embodies the path and the foundations for future generations (Williams, 2004). Māori believe that every living thing is connected (Pere, 1991; Williams, 2004). As humans we have a responsibility to nurture mauri and model this with care, and to appreciate and respect non human living beings. All living things have mauri (mana) and early childhood educators have a responsibility to nurture and model this care and respect. The outdoors provides many wonderful opportunities to foster care, appreciation and respect for Papatūānuku (Pere, 1991). Papatūānuku has wondrous ways of showing children the seasons of the year. In Aotearoa we have an abundance of natural areas where children can experience the wonder of nature (Pere, 1991). Children need to have opportunities to see the wider world beyond the centre, either through the kind of fencing used or through the provision of 'windows' in the fencing. This connection with the world outside is a very important aspect of what children are doing outdoors, and often contributes significantly to the richness of children's outdoor experiences (Greenfield, 2007; Stephenson, 1998).



## Questions to ask yourself

- Can children find the natural world here?
- Do you go on excursions which offer young children exciting and meaningful direct experiences?
- How do you model care and respect for the non human living things in your outdoor environment?
- Do you have any nonhuman living things?
- Are the cultures of the children represented?
- Can children see the changes of the seasons?





## Rich sensory experiences

The outdoor environment must engage all five of the senses - touch, taste, smell, sight and sound.

Consider carefully the detail of the outdoor environment to enrich children's experiences, with spaces and objects that delight all of their senses. Include interactive elements such as water pumps, levers, buttons to explore cause and effect, and things that children can open and close. Have different surfaces to make rubbings and noises with. Provide materials that reflect light/absorb light, are hard/soft, rough/smooth.

Plant vegetation that smells nice when the leaves are crushed or when children put them up close to their noses.

Place mirrors, mosaics and statues in unexpected places and change the details often. Have new mobiles that blow in the wind, fresh planting in the gaps between the permanent trees and shrubs, or in pots. Place little gifts to discover in the garden like a bowl of different shells or freshly picked flowers floating in a shallow dish.

Provide a variety of pleasant, natural sounds and sound features for children to explore.

Involve local artists and sculptors in creating special features that will inspire the children in their own creativity.

Sand and other natural materials can provide an immense amount of sensory input. These materials can be relaxing, pleasurable and provide opportunity for leisurely experimentation and engagement. As stated in *Te Whāriki* children develop "the knowledge that playing with ideas and materials, with no objective in mind, can be an enjoyable, creative, and valid approach to learning" (Ministry of Education, 1996, p.84).

Ataov (2004) suggests that children have an emotional and visual response to certain physical aspects of the environment and that water is one of the elements in the outdoors that children prefer. Water, like sand, also enables children to perform useful, harmless and satisfying actions.

Sand and water are safe materials for children. They can be manipulated freely without fearing that they will break or damage them. It is plausible that the lack of emphasis on outcomes or products in the outdoors which gives greater freedom and power to children (Vender-Ven, 2004) may well be another facet of why children like to be outside.

Infants and toddlers in particular need an outdoor playspace that is rich in sensory experiences that enable them to gain mastery over their developing physical skills in their own time (Hutchins and Simms, 1999).

## Questions to ask yourself

- Are there natural materials that engage children's senses?
- Can children see something wondrous, sparkly or shadowy?
- Are there special objects and places for children to investigate?
- Is this a place where children can see things from different perspectives?
- Do you take "time out to feel the magic?" (Pere, 1997)





## Opportunity to create, rearrange and transport

The availability and accessibility of loose parts and real tools (like metal spades) and having a variety of material supports children's imaginative, co-operative and construction play (Bilton, 2002).

Flexible equipment provides opportunity for children and teachers to modify the environment and manipulate equipment. A variety of vehicles to transport these in, are also necessary.

Provision of places where there is the availability to hide and create imaginary worlds (Greenfield, 2007) links to

children having a sense of place, of habitation thereby "children and their families experience an environment where they know that they have a place" (Ministry of Education, 1996, p. 58).

Rearranging, creating and transporting helps develop physical strength and notions of powerfulness and empowers children to see themselves as an agent of change.

Much imaginative, co-operative and creative play can arise from rearranging and creating new spaces and experiences.

## Adults that value the outdoors and will engage with me

Adults need to be knowledgeable about children's interests and strengths and be able to engage enthusiastically with children outdoors. Children enjoy having adults join in their games and participate in their outdoor play. Children also value and appreciate being taught new skills and opportunities to be physically challenged. Manipulative skills like throwing, catching, swinging, kicking and striking are specific skills that teachers may need to teach (Sanders, 2002). Children may also need to be given ideas on how to use particular items of equipment, for example how to transition from the ladder or box to the monkey bars, and how to move under them.

Your role in the outdoors requires a balance between safety and supervision and providing challenges and allowing children to take risks (Greenfield, 2007). The Māori concept of tapu is relevant as it has within it the notion of placing boundaries around real dangers and hazards for children. In other words keeping children safe, while allowing children to take the challenges they know they are ready for is important.

Several reports suggest that the presence of an adult who extends the complexity of children's play results in an increase in children's reflective thinking, generation of creative ideas, and also extend children's knowledge

(Cullen & Allsop, 1999; Greenfield, 2007; Stephenson, 1998).

Mahi-a-rongo is the Māori concept of peaceful activity. Here adults have a role introducing children to more traditional games and dances that can occur outside. For example, stick games, spinning tops, kite flying, poi, hand games (Pere, 1991). The movement of poi and hand is actually based on the movement of birds, waves, insects etc (Pere, 1991).

When you engage with children in peaceful pursuits it brings healing to the heart, mind and spirit (Pere, 1991).



## Things to think about:

- Consider the children's skills and experiences when making decisions about your outdoor environment on a daily and long term basis.
- Be a careful observer and seek to complicate children's thinking.
- Consider how you can incorporate elements of surprise, wonder and awe into your outdoor environment.
- Become an advocate for children having the right to be in optimal outdoor environments.
- Use 'being outside' and equipment and materials to promote social competence.
- Spend time observing children and truly listen to them.
- Remember infants and toddlers love to be outside too.
- Try and borrow the distant landscape, for example framing attractive views.
- The composition of materials should provide an orchestrated whole in which there is balance. For example, between materials that are: natural and manufactured, hard and soft, warm and cold, temporary and permanent, heavy and light.
- If you feel inadequate about providing for outdoor play then you may find the reading and resources at the end of this booklet helpful.
- All centres need to go on excursions even if their outdoor space is more than adequate.
- Teachers need to be familiar with the requirements of the NZ Playground safety standards.

"The environment makes a statement about what adults think is important for children" (Sanders, 200, p17).

## Suggested reading/resources

Bilton, H. (2005). *Learning outdoors: Improving the quality of young children's play outdoors*. London: David Fulton.

DeBord, K., Hestenes, L., Moore, R., Cosco, N., & McGinnis, J. (2002). Paying attention to outdoor environment is as important as preparing the indoor environment. *Young Children*, 57(3) 32-35.

Davis, J. (1998). Young children, environmental education and the future. *Early Childhood Education Journal*, 26(2), 117-122.

Garrick, R. (2004). *Playing outdoors in the early years*. London: Continuum International Publishing Group.

Stephenson, A. (2003). Physical risk-taking: endangered or dangerous? *Early Years*, 23(1). (Occasional Paper No.4.): Institute for Early Childhood Studies.

The Handbook - SNZ HB 5828.2:2006 Supervised early childhood facilities - Playground equipment and surfacing handbook - and can be purchased as a hard copy or downloaded for free as a PDF from the Standards NZ website (search the catalogue under SNZ HB 5828.20:2006).

[www.minedu.govt.nz/indexcfm?ID=11179-21k](http://www.minedu.govt.nz/indexcfm?ID=11179-21k)

## Websites

Safekids: [www.safekids.org.nz](http://www.safekids.org.nz)

SPARC: [www.pushplay.org.nz](http://www.pushplay.org.nz)

Landscapers Association:

[www.lianz.org.nz](http://www.lianz.org.nz)

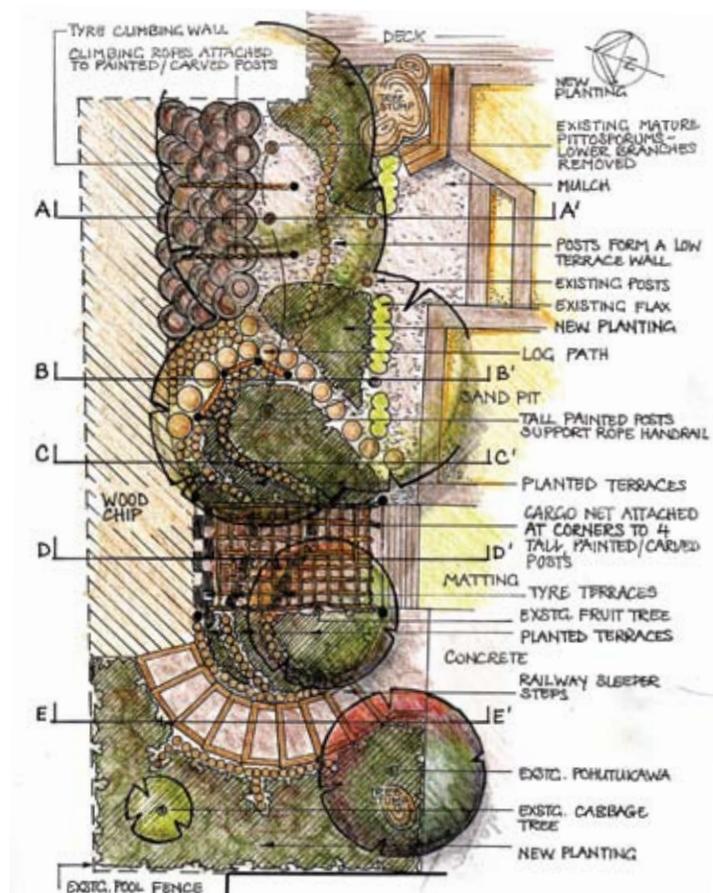


## Importance of professional help

Ensure that the outdoor area is well planned and designed, and that you engage professionals in order to achieve this, especially the kind that listen well and work collaboratively with staff and children.

While it is important for the local community to contribute their ideas and skills to the outdoor developments, professional help with the design and construction should be sought for anything other than minor improvements.

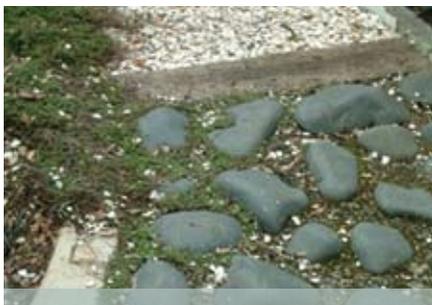
Costly mistakes can be avoided, and the best solutions achieved by working through a thorough and collaborative design process with a qualified play environment design specialist. It is much cheaper to change the paths, areas and shapes on paper than on the ground! Having an overall long-term landscape plan will ensure that everything is in the best place and that areas are not developed in an "ad-hoc" way. A properly drawn up plan also provides a focus for fund-raising efforts. Detailed drawings and specifications will be needed to obtain accurate and competitive prices for developments, to ensure compliance with playground safety standards and to obtain any necessary approvals. A well-constructed play space will be durable and easier to maintain. There are no short-cuts! It is best to do the job properly.



Design contributed by Jill Rice, Get Outside Ltd

## References

- Ataov, A. (2004). *Water as part of children's environment & children's preferences for waterfront settings*. Paper presented at the First International Conference on Inclusive Environments: Open Space-People Space, 2004, Edinburgh, Scotland.
- Bilton, H. (2002). *Outdoor play in the early years: management and innovation* (2nd ed.). London: David Fulton.
- Carr, M (2001). *Assessment in early childhood settings: Learning stories*. London: Paul Chapman.
- Cepi, G., & Zini, M. (Eds.),(1998). *Children, spaces and relations*. Reggio Emilia, Northern Italy: Reggio Children and Domus Academy Research Centre.
- Clark, A., & Moss, P. (2005). *Spaces to play: More listening to young children using the mosaic approach*. London: National Children's Bureau.
- Corsaro, W.A. (1985). *Friendship and culture in the early years*. Norwood, New Jersey: Ablex.
- Cosco, N., & Moore, R. (2001). Developing an earth bound culture through design of childhood habitats. In J. Farris, M. Morris, C. Norman, & J. Semple (Eds.). *People, land, sustainability: A global view of community gardens* (pp1-7). Nottingham: Nottingham University.
- Cullen, J. (1993). *Preschool children's use and perceptions of outdoor play areas*. *Early Childhood Development and Care*, 89, 45-56.
- Cullen, J., & Allsop, G. (1999). *Enriching the knowledge base of children's play*. Paper presented at the Seventh Early Childhood Convention, Nelson, 27-30 September, 1999.
- Farquhar, S. (2003). *Quality teaching foundations: Best evidence synthesis (best evidence iteration)*. Wellington, New Zealand: Ministry of Education.
- Frost, J. (2006). *The dissolution of children's outdoor play: Causes and consequences*. Paper presented at Common Good Forum on The Value of Play, May 31, 2006, Washington DC. Retrieved on October, 10th, 2006 from <http://www.cgood.org/f-valueofplay.html>
- Gallahue, D. (1989). *Understanding motor development: Infants, children, adolescents*. Englewood Cliffs, N.J.: Prentice Hall.
- Garrick, R. (2004). *Playing outdoors in the early years*. London: Continuum.
- Gill, T. (2005). If you go down to the woods. *Ecologist* (October, 2005) cited, in *Exchange Everyday*. Retrieved April, 17, 2006, from <http://www.childcareexchange.com/ed/issue.php?id+1440>
- Greenfield,C. (2003). Outdoor play – the case for risks and challenges in children's learning and development. *Safe kids News*, Issue 21, June, p.5.
- Greenfield, C. (2004). Can run, play on bikes, jump the zoom slide, and play on the swings: Exploring the value of outdoor play. *Australian Journal of Early Childhood*, 29(2), 1-5.
- Greenfield, C. (2007). *A case study of children's and adults' perceptions of 'being outside' in one early childhood centre*. Unpublished Qualitative Masters of Education Thesis, Massey University, Palmerston North, New Zealand.
- Greenfield (2007b) What is it about the monkey bars? *Early Childhood Folio: A collection of recent research*, 11:2007, 31-35.
- Greenman, J. (2005). *Caring spaces, learning places: Environments that work*. Redmond, W.A: Exchange Press.
- Gruenewald, D. (2003). The best of both worlds: A critical pedagogy of place. *Educational Researcher*, 32(4).





## References

Hutt, J. Tyler, S., Hutt, C., & Christopherson, H. (1989). *Play, exploration and learning*. London : Routledge.

Hutchins, T., & Sims, M. (1999). *Programme planning for infants and toddlers: An ecological approach*. Sydney: Prentice Hall.

Ministry of Education. (1996). *Te whāriki, he whaariki matauranga mo nga mokopuna o Aotearoa: Early childhood curriculum*. Wellington: Learning Media.

Ministry of Education. (2006). *Draft criteria for licensing or certification of ECE services: Discussion document*. Wellington: Ministry of Education.

Moore, R.S. (1986). *Childhood's domain: Play and place in child development*. Berkley, C.A: MIG Communications.

Olds, A. (2001). *Child care design guide*. New York: McGraw Hill.

Pere R (1991) *Te Wheke: a celebration of infinite wisdom*. Gisborne: Ao Ake Global Learning.

Pica, R. (2006). Physical fitness and early childhood curriculum. *Young Children*, 61(3), 12-18.

Sanders, S. (2002). *Active for life: Developmentally appropriate movement programs for young children*. Washington D.C: NAEYC.

Sheridan, S., & Pramling-Samuelsson, I. (2001). Children's conceptions of participation and influence in preschools: A perspective of pedagogical quality. *Contemporary Issues in Early Childhood*, 2(2), 169-193.

Stephenson, A. (1998). *Opening up the outdoors: A reappraisal of young children's outdoor experiences*. Unpublished Masters Thesis, Victoria University, Wellington.

Sutterby, J. & Thornton, C. (2005). It just doesn't happen! Essential contributions from playgrounds. *Young Children* 60 (3), 26-33.

Vander-Ven, K. (2004). Beyond fun and games towards a meaningful theory of play? Can a hermeneutic perspective contribute? In S. Reifel, & M.H. Brown (Eds.), *Advances in early education and daycare: Social contexts of early childhood education, reconceptualizing play (II)*, Vol., 13, (pp.165-206). Oxford, UK: Elsevier.

Williams, J. (2004) Papa-tūā-nuku: Attitudes to land. In T. Ka'ai, J. Moorfield, M. Reilly, & S. Mosley (Eds.). *Ki Te Whaiao: An introduction to Māori Culture and Society* (pp. 50- 60). Auckland : Pearson Education.





Gate 11, Otara Road, Manukau City, Auckland  
Private Bag 94006, South Auckland Mail Centre,  
Manukau 2240, Auckland, New Zealand  
0800 62 62 52 / [www.manukau.ac.nz](http://www.manukau.ac.nz)

ISBN: 978-0-473-12861-0