

About the project

This case study is one of a series, following research into the role outdoor environments in Japanese kindergartens can play in developing risk-taking behaviours and emotional, intellectual and physical resilience.

Funded and supported by the Great Britain Sasakawa Foundation, Play Learning Life, Learning through Landscapes and Tsurumi Junior College, the research team visited 15 settings in and around Tokyo and Yokohama. Information and evidence was gathered through desk research, outdoor observations, discussions with children and adults and targeted online surveys for teachers, practitioners and designers. *Click on the logos to visit our websites*.

In addition to these case studies, our project conclusions can be accessed via online and face to face CPD seminars, aimed at designers, policy makers and those working in schools and kindergartens so that they too can learn from what is being achieved in Japan.









Case study: Planting and Natural Areas

This case study looks at how children's interactions with planted areas and natural landscapes supports risk-taking play and the development of resilience in Japanese early years settings. Our focus was on the design and planting of spaces that enabled challenging, resilience building play and learning outdoors.

Planting and natural areas are key to ensuring that children, who might otherwise miss out on regular contact with nature, have opportunities to be immersed in it whilst at kindergarten or school.

Planting has a significant impact on how each outdoor space feels, softening the hard lines of fixed equipment and buildings, providing shade and shelter, creating texture and sound and affording spaces to be alone or to meet friends.

All of the study schools and settings made the most of the topography of their site, embracing slopes and mounds, water courses and mature woodlands for the benefit of children's learning and play.

Risk-taking + Resilience: Lessons from Japanese kindergartens was made possible by generous funding and support from the Great Britain Sasakawa Foundation, Play Learning Life CIC, Learning through Landscapes and Tsurumi Junior College.

Julie Mountain and Mary Jackson would like to express their sincere thanks to the children and adults who welcomed us so warmly to their schools and settings, and to Dr. Ko Senda and Ryuta Otsubo, researchers, interpreters, curators and outdoor play pedagogues. We simply wouldn't have had this incredible opportunity without you.

Natural Areas - Character

Planting is used widely throughout settings to create atmospheric effects such as tranquillity, welcome, retreat and exuberance. Particular care is taken at the entrances to schools and settings, indicating that vegetation and access to nature is an important element of provision.

Moving into the site, high quality landscapes, features and equipment signify the value placed on the young people using the site. Children and young people derive 'messages' about how their needs are respected from the environments they are provided with; this is know in the UK as the 'hidden curriculum' of school grounds. The use of planting in Japanese settings demonstrates a profound understanding of children's elemental need to connect with and influence the natural world.











Natural Areas - Wildlife

Water is a common feature in schools and settings. Formal and informal ponds, running watercourses and rills offer a variety of habitats. Planting plays a dual role, creating and enhancing wildlife habitats. Children take huge care when examining creatures and have a significant role in looking after animals and their habitats.

Bird and insect homes are common, and planting is chosen so that children can feed indigenous insects – such as the praying mantis – with plants harvested from their own grounds.

Tree and shrub planting is carefully planned to be varied in size and species and includes high canopies through to scrubby understorey; this increases the biodiversity of sites.









Natural Areas - Plants for play

Mature trees and bushes provide shade and spaces to hide, to climb, to run through and to peek between. Generous planting means that children can find special places to be – on their own or with friends or a practitioner. Spaces are screened from one another creating intriguing, circuitous routes and making the spaces feel less crowded.

Because of the dense planting, children might often out of adults' sight OR out of their earshot, but never both. Undulating landforms and high points allow practitioners to move around the site and share the care of all the children playing out.











Natural Areas - Natural materials 'loose parts'

Imaginative and generous planting and the use of natural materials for construction means there is a constant supply of loose parts – branches and sticks, leaves and pebbles, cones and seeds, bark chips, mud and dirt – for play. Carefully chosen resources are introduced to enrich the simple yet abundant palette of natural loose parts. For example, kitchen and laboratory equipment for mixing and experimentation, digging tools, building materials and fabrics are readily available to allow children to develop their play.

Succession planting is a key strategy to ensure a steady supply of natural materials, and a healthy population of plant species. Biodiversity is crucial not just for the environment as a whole, but also as a way of helping children understand and develop respect for their world. They help with planting, harvesting and caring for plants, and adults support playful experiences using resources children choose for themselves.









Natural Areas - Crops

Japan is a health conscious nation and kindergartens and elementary schools place great importance on children learning about food cycles. Settings have growing areas – ranging from strawberries and potatoes growing in pots through to ambitious smallholdings.

Paddy fields are common and are generally located on embankments. Rice growing has cultural significance and children are involved in the cycle - from planting the rice seedlings in muddy water through to milling the grains and cooking them.

Rice isn't the only popular crop. In common with UK settings children grow salads, vegetables and soft fruits, depending on the space available, the soil type and the knowledge of staff in each setting.

Please see Case Study 12: Growing Food and Flowers for more detail.













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Risk-taking + Resilience: planting and natural areas

Putting it into practice

Key lessons from our study of risk-taking and resilience in Japanese kindergartens:

Skilled practitioners

- One practitioner might have responsibility for a specific group from their cohort or class, whilst a second practitioner 'floats' around the site when they are outside. In this way there is always someone to support children when they need it and keep an eye out for all pupils around the grounds, even if they are hidden from view of their key person or teacher.
- Extensive planting creates lots of different places and spaces for children to move between some feel quite special and hidden. However, the adults also know where these 'hidden' spaces are, so children are never too far from an adult (or other children) who can provide support if any issues arise.

Equipment and materials

- Settings combine native, naturalistic planting and exotic, ornamental planting. Sometimes the function is the same – maybe to create a nurturing atmosphere or dividing space – or it may be quite different – such as to attract wildlife, improve biodiversity, provide crops or create a particular atmosphere in an area.
- Planting complements other natural and man-made features: trees are often incorporated into bespoke play equipment; large shrubs are used to stabilise a sandy slope. A ladder leaning on the trunk of a tree indicates that it is good (and safe) for climbing in, whilst larger trees are frequently employed for rope swings.

Management

- · Extensive natural spaces, even 'wild' ones, do need management and maintenance. Investing in regular upkeep and dealing with potential problems as soon as they arise reduces the likelihood of accident, or expensive remedial works. Regular checks - for example on trees, embankments and water courses ensures they continue to be safe for children and adults to enjoy.
- Staff at the study settings have a passion for outdoors and work with children to look after their outdoor spaces, reducing the demand on paid-for site maintenance.

Benefit Risk Assessment

- Spaces are created where children cannot be clearly seen from all parts of the site so children feel they are hidden or in their own special space. Some practitioners will have a responsibility to roam within the grounds, supporting children around the site with the activities they choose to take part in. Sometimes these activities are led by the practitioners but often pupils lead the way and the practitioners follow.
- Children transport and play with large branches, rocks and sticks and other potentially hazardous natural objects. Practitioners support children as they learn how to recognise and manage risks and consequently, accidents of any significance are very rare - bumps, bruises and cuts are, of course, very common and seen as important steps in the journey towards bodyfulness and emotional resilience.







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