



CASE STUDY

Singapore | HortPark

At Play in Nature

Play serves an important function in a child's development. Nature also has positive effects on our mental well-being. With these in mind, the National Parks Board designed the Nature Playgarden at HortPark to tap the power of both play and nature to improve the growth and health of children.

The Opportunity

In the past few decades, research studies have shown that young children learn better through play. Outdoor play, in particular, has been associated with helping children learn better in all domains. The development of their cognitive, social-emotional, language or motor skills is enhanced when they play in a natural setting. There is also evidence of the therapeutic value of nature, including faster healing and pain alleviation in surgery patients, improved concentration in children with attention deficit hyperactivity disorder, and improved immunity, stress reduction and better emotional well-being in children and adults. Supporting these findings is the concept of biophilia. Defined as the innate affinity of humans for nature

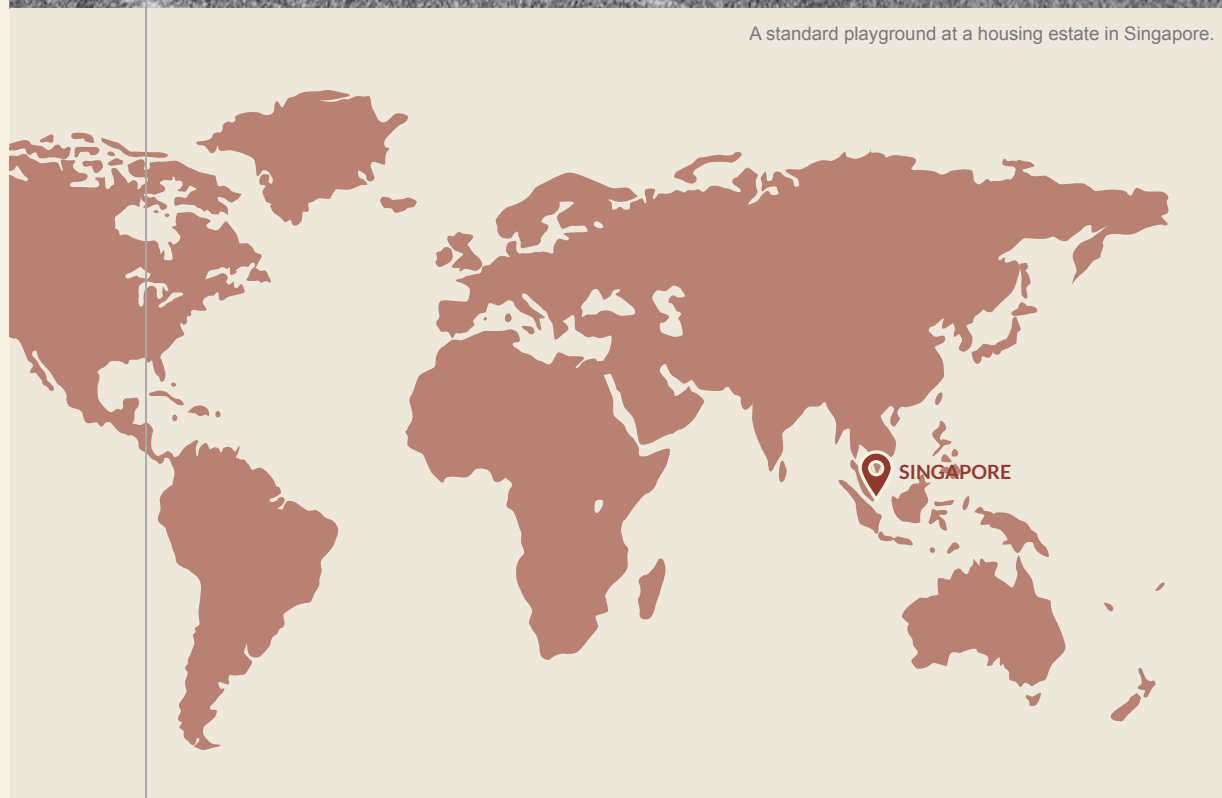
“Outdoor play has been associated with helping children learn better in all domains.”

and living things, biophilia explains why people feel happier when they are in a natural environment.

Singapore already has an extensive green network, and playgrounds are a common feature in the country's parks and gardens. However, these playgrounds are usually made of plastic, metal and rubber and characterised by standardised equipment that directs the play activities of children.



A standard playground at a housing estate in Singapore.



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The Initiative

Keen to tap deeper into the nature-human connection, the National Parks Board (NParks) opened the Nature Playgarden at HortPark in March 2019. This biophilic and naturalised playground encourages children to explore, discover and appreciate nature. Created specifically for children aged 3 to 6 years old, it allows direct connections to nature through seeing, touching, hearing and smelling natural elements, providing both larger areas that convey feelings of spaciousness as well as smaller spaces that serve as a shelter and create a sense of risk and mystery.

The 0.35-ha (3,500 m²) playgarden is lit entirely by sunlight and the ground is covered with sand, gravel, wood chips, soil and grass instead of rubberised safety flooring. About 99% of the playgarden is made from recycled natural materials, with the steel used in a tunnel forming the remaining 1%. Though reinforced with steel to prevent it from caving in, the tunnel has an outer layer of wood to make it look natural.



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The playgarden utilises the location's uneven terrain and is set amid abundant greenery. As children play, their senses would be stimulated not only by what they see and touch but also by the sounds and smells of nature in their surroundings. They would also be able to observe the animals inhabiting the area, including the Straw-headed Bulbul and the Common Parasol dragonfly. The playgarden's

play features were designed to encourage children to play freely with nature, with plenty of room for them to run around, exercise their motor skills and challenge themselves physically. Children can also play imaginatively and creatively with natural materials such as pebbles, sticks and dried leaves found around the playgarden.

01 An overview of HortPark's layout.

02 At The Stream, children interact with water as it flows through a series of channels carved from logs and observe how different materials float or sink in the water.

“As children play, they also build skills and improve their well-being.”



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The Outcome

The Nature Playgarden provides children with an immersive, multi-sensory experience of playing freely amid nature using whatever nature provides. Here, children interact with their surroundings spontaneously in their own way, without external direction. The playgarden also allows children to reap the mental health benefits of spending time in nature, such as reduced stress and improved mood. As children play, they also build skills and improve their well-being.

Teachers and parents have given the playgarden positive reviews, and NParks is now working to create more nature playgardens in Singapore. Using the Nature Playgarden as a test site, NParks is gathering information that will be used to develop guidelines as part of its Biophilic Playgarden Plan, which aims to encourage preschool-aged children to spend more time outdoors in nature. To be completed by early 2020, the

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guidelines will help preschools, private developers and government agencies design nature playgardens.

NParks plans to build new nature playgardens in other parks and gardens over the next two years, including at the Gallop extension of the Singapore Botanic Gardens. It will also be enhancing existing playgrounds with biophilic design features. With more nature playgardens across Singapore, NParks hopes that children across the island will develop a lifelong love for nature and grow up healthier and happier. ○

01 At The Singing Seeds, children explore the sounds made by hanging bamboo poles of various sizes, which create different pitched chimes as the children move them.

02 Children crawl or climb over the logs as they make their way across The Log Valley and rest in a bamboo grove at The Secret Den.