

Whole-of-school Learning

EDIBLE AND SENSORY SCHOOL GARDENS & PLAY SPACES



www.EdibleKidsGardens.com.au

Background & Vision

Since 2008 Edible Kids' Gardens (EKG) has offered landscape design for households and schools aimed at providing learning and therapeutic stimulation as part of children's experience of the natural world. EKG specialises in creating unique outdoor spaces which engage the senses and stimulate the imagination in a safe, fun and inclusive way. When approaching playground design, EKG embraces the vision of the Australian Standard, which states: "The primary aim of a playground should be to stimulate a child's imagination, provide excitement and adventure in safe surroundings, and allow scope for children to develop their own ideas of play." (Foreword, 'Playground Equipment' - AS, 4685.1-2004)



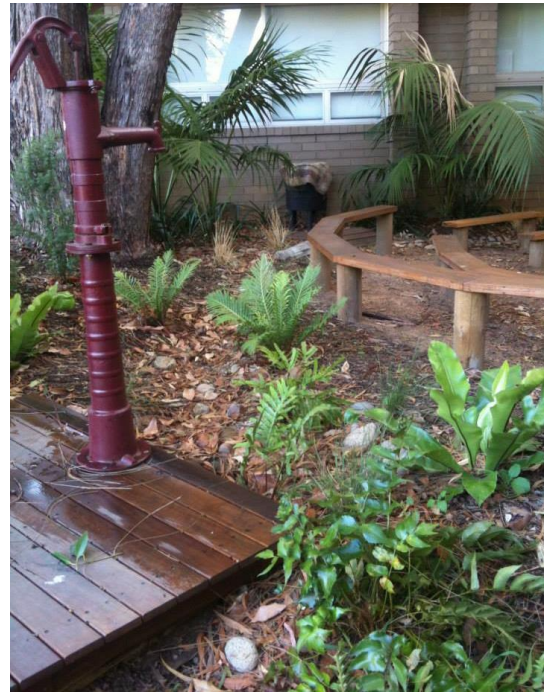
*Children explore the sensory garden at Gosford Preschool
(Design & construction by Edible Kids Garden, 2011)*

With school students spending on average almost a quarter of their day in the playground, the design of these areas is crucial for students' social and emotional development, and in combating obesity (Bell & Dymont, 2006). School grounds which offer a diversity of activities including exploration of hidden areas, climbing, digging, and constructive and imaginative play offer more opportunities for active play overall, as well as the opportunity for moderate physical exertion for those students not inclined towards vigorous play (chasings, ball games) (Dymont & Bell, 2007).

The whole school grounds as a learning environment

Outdoor spaces in schools present the opportunity to contribute to important aspects of a student's schooling experience. These include socialisation, formal and informal learning, imaginative games, taking risks, running, competing in organised sports, and contemplative time in nature. The school yard is the immediate environment in which children can test out and apply their classroom learning.

Just as is the case with a school's buildings, the school's grounds should be designed with the children's learning experience as the primary aim. Rather than dichotomising students' education to within the school buildings and play to the outdoor areas, the approach of the 'outdoor classroom' makes the most of the dynamic possibilities of outdoor spaces. Students create learning opportunities equally inside and out of the walls of the classroom, and stimulating and aesthetically pleasing school grounds help to stimulate a child's learning and creativity. Thus, through the enhancement and increased accessibility of the school's outdoor environments, students increase their experience of the school in wide-ranging, imaginative and unforeseen ways.



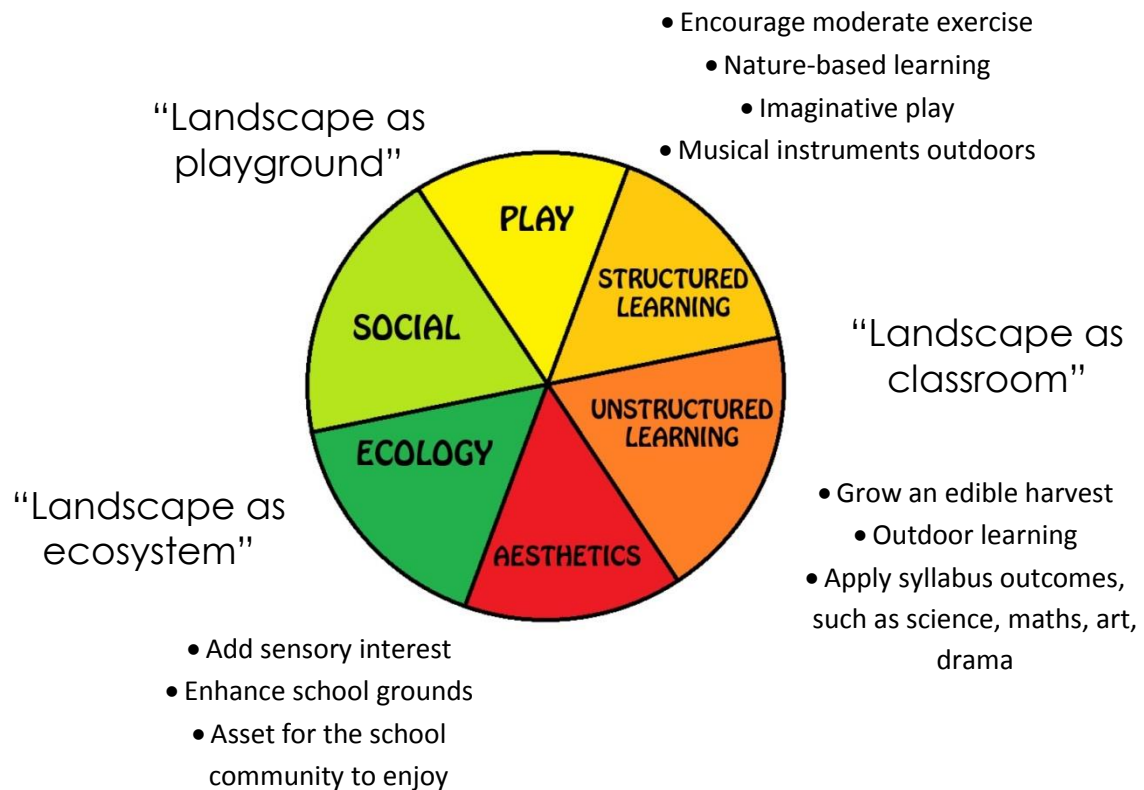
Rainforest amphitheatre seating area with hand pump, Ashfield Public School (Design & construction by EKG, 2013)



Natural Gum tree wobble steps, Enfield preschool (Design & construction by EKG, 2014)

Planning outdoor spaces in schools

There are numerous aspects to consider concurrently when planning and designing a school outdoor environment:



*Candy cane living tunnel in the sensory garden,
Ashfield Public School
(Design & construction by EKG, 2013)*

Benefits of open-ended natural play spaces

School grounds which include well-designed natural elements such as trees, frog ponds, productive gardens and sensory plantings have been shown to enhance the emotional and intellectual development, social integration and motivation to learn of their students (e.g. Rohde & Kendle (1994); Malone & Tranter (2003); Maller & Townsend (2005/2006); Dymont, Bell & Lucas, 2009). A diverse range of spaces allows for greater inclusiveness and fosters more non-competitive forms of play than conventional play equipment or rule-bound sports (Bundy et al., 2011). Areas such as productive vegetable gardens and fruit tree orchards stimulate interest and involvement from parents and the broader community. Quieter, soothing gardens for sitting and observing are particularly important for children on the autism spectrum, who make use of “sensory stimulation from the environment in order to calm or self-regulate their nervous system” (Stadele & Malaney, 2001, p. 213). For example, a mirror on the wall provides a novel perspective of the garden and stimulates children’s fascination.



*Natural Gum tree balancing ropes,
Enfield preschool
(Design & construction by EKG, 2014)*

Consider these finding from Health Sciences researchers
at the University of Sydney:

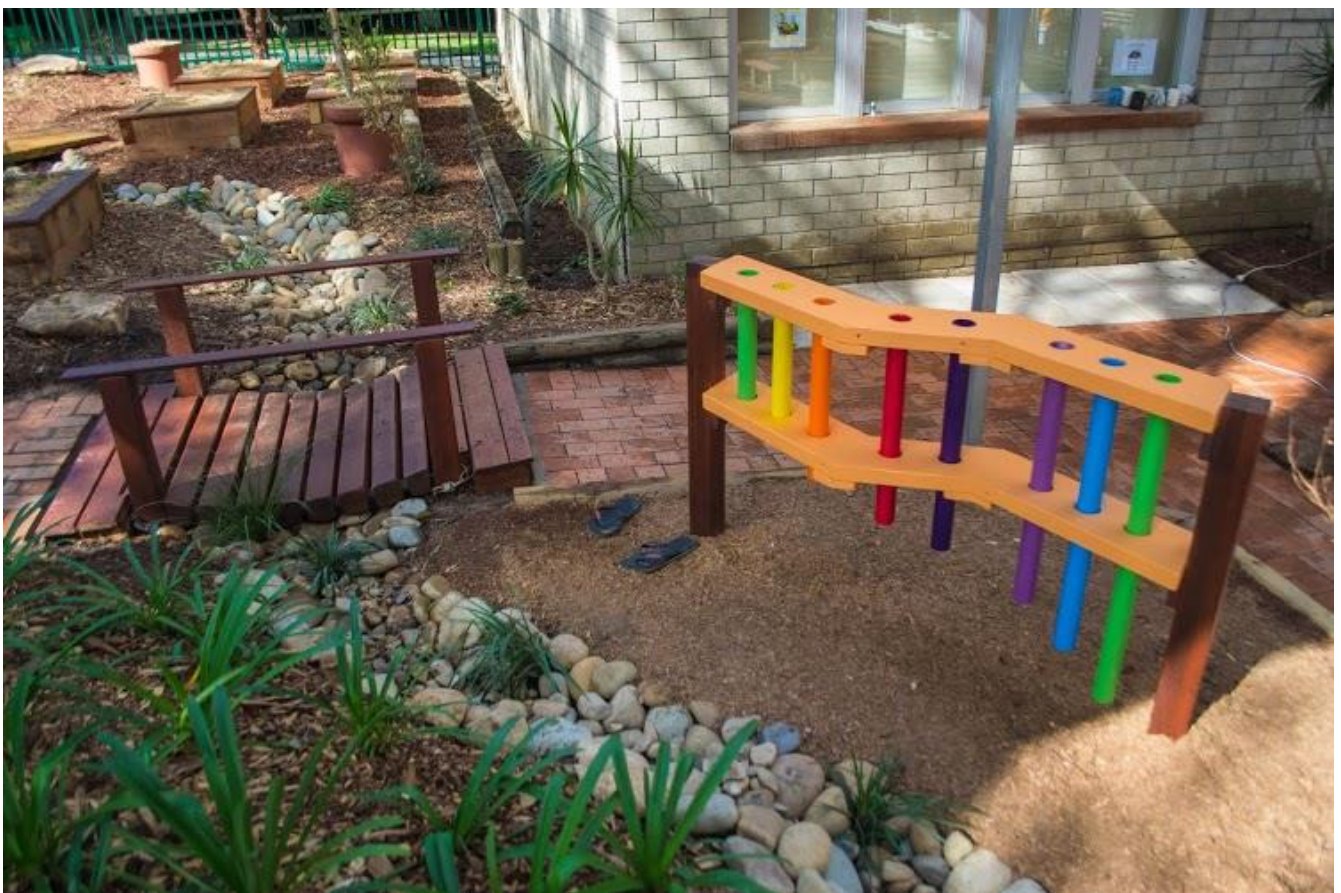
“Purpose-built equipment (e.g., slide) fails to promote collaborative and imaginative play... [These] are often places in which less physically competent children are teased by peers. In contrast, natural play spaces (e.g., woods, gardens) and playgrounds with unstructured construction materials stimulate diverse and creative play. Fantasy and socialisation are prominent and **the social hierarchy is based on the ability to imagine what the space might become rather than on physical prowess**. Children experience active play through lifting, pushing, and pulling. They engage in creative, socially interactive play as they construct new structures and play within them. [In 2 studies] where children played with unstructured materials, reports of injuries, bullying and fighting were almost non-existent.”

- Bundy et al. (2011, p. 2)

Designing play spaces within a natural setting

Given the importance of diverse natural features in meeting the needs of individual users, EKG designs outdoor play spaces where play areas are logically incorporated within a natural setting. Rather than “plonking” pieces of play equipment onto a blank space with no connections between them, play features are nestled into the overall garden design. Thus, for example, a bridge feature leads from one area into another, and it purposefully serves as a crossing over a creek or wetland area.

The grouping and positioning of elements in relation to each other as well as how spaces are connected to each other are important design considerations in an inclusive playground. Sufficiently wide wheelchair-accessible pathways, ramps, and features such as living tunnels are designed to logically guide users from one space to another, to provide interest and allow for rest and informal play. This reflects the observation that “The majority of children’s play takes place in non-designated areas such as paths, steps and ramps, and planted areas” (Australian/ New Zealand Standard 4486.1:1997).

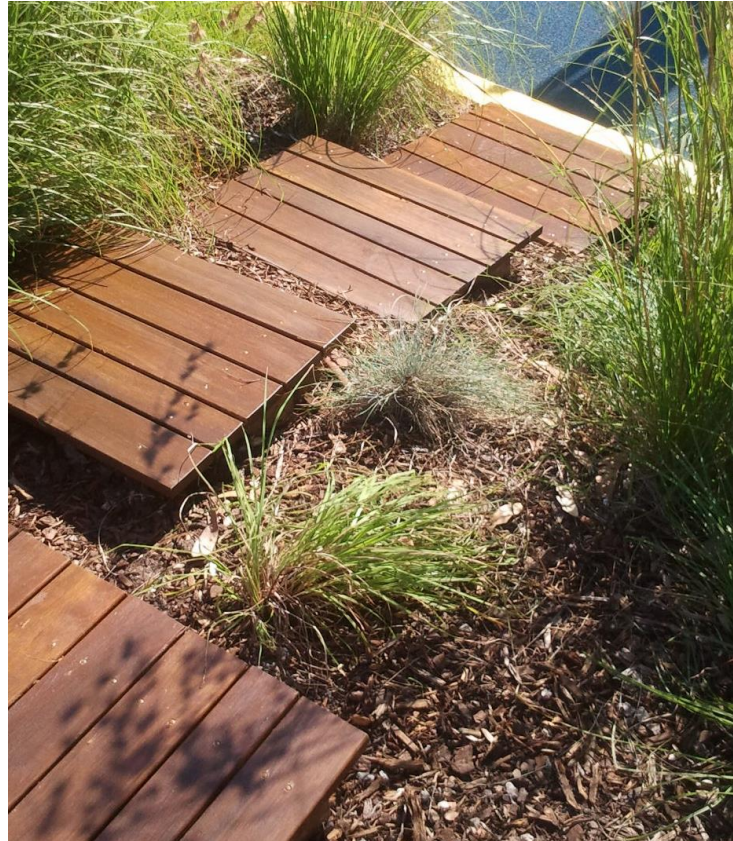


A dry stone creeks serves as a logical connecting element, “flowing” through the productive gardens, under the wobble bridge and framing the thong-a-phone. K-2 Playground, Georges Hall Public School (Design and construction by EKG, 2014)

Shade and seating which cater to the unique sensory and social needs of children are other important factors to consider in designing a school playground. Shade is particularly important for students with autism and other developmental impairments who may enjoy sitting for long periods in a garden. Ideally a garden should provide the sensory experience of dappled shade created by advanced trees and large shrubs. Seating should be varied in how it is positioned in terms of allowing for different sizes of groups, from large groups down to pairs and individuals, and there should be some sitting areas which are more secluded by their proximity to planting to give children the sense of hiddenness.

EKG seeks to design spaces which engage all five senses through careful selection of textural, colourful and scented plants, foliage which changes colour with the seasons, and by including elements such as ramps and bridges, elevated play areas, wildlife habitats, ability-non-specific basket swings, and natural features such as creeks, boulders and water features. Natural features are endorsed by the Australian Standard on

playground design: “Where a site is deficient in natural assets the design of the site should provide for contouring, grassing, planting with appropriate shrubs and trees, screening and variety of surfaces and changes of level.” (AS/NZS 4486.1:1997 - 'Playgrounds and playground equipment' - 7.2.3.5.(b))



Timber platform steps up slope at Cerebral Palsy Alliance therapy garden, Allambie Heights (Design by EKG, 2012)

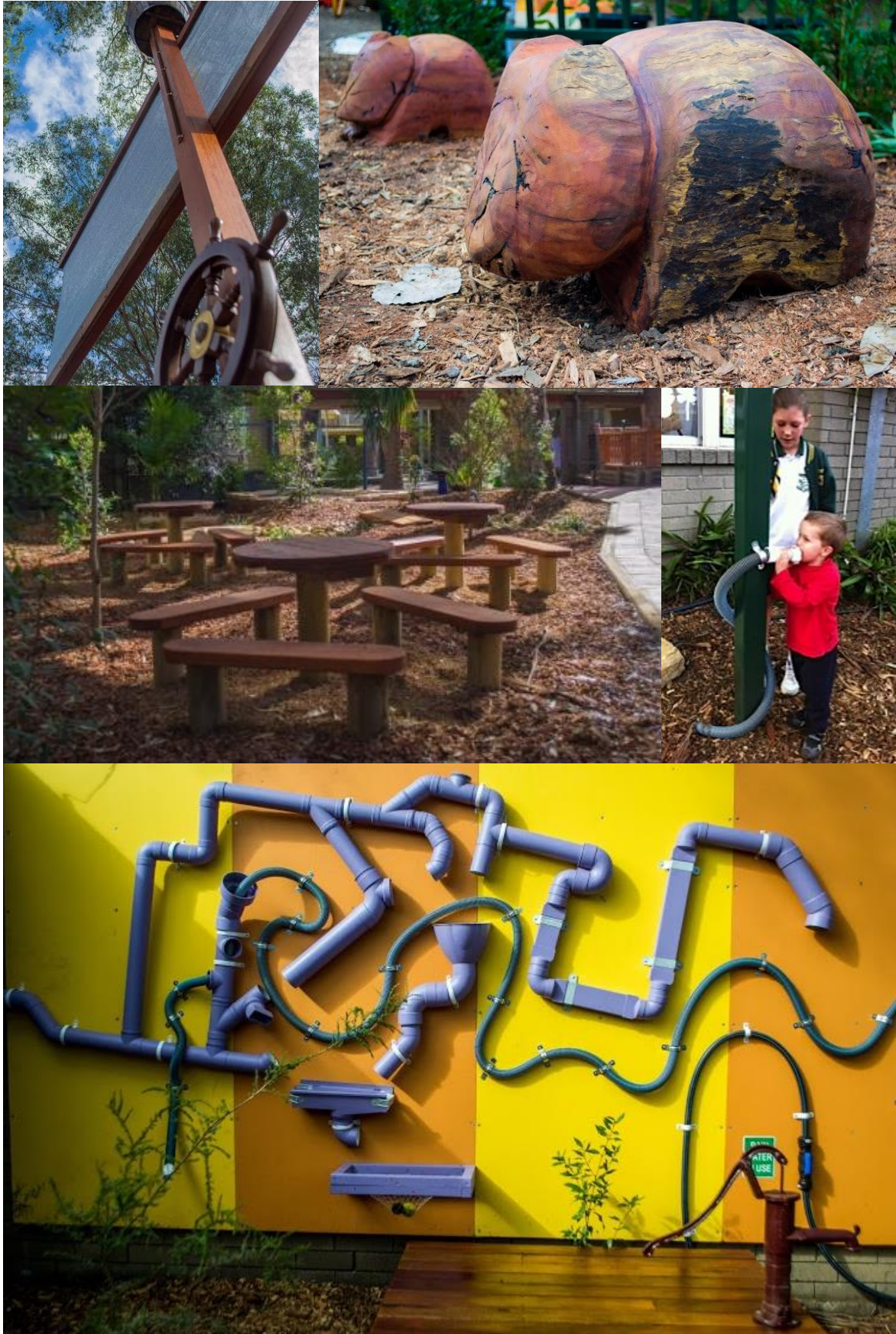
Previous projects

Here are photos of some projects which Edible Kids Gardens has designed and constructed in recent years.

St Brigid's Primary School, Marrickville



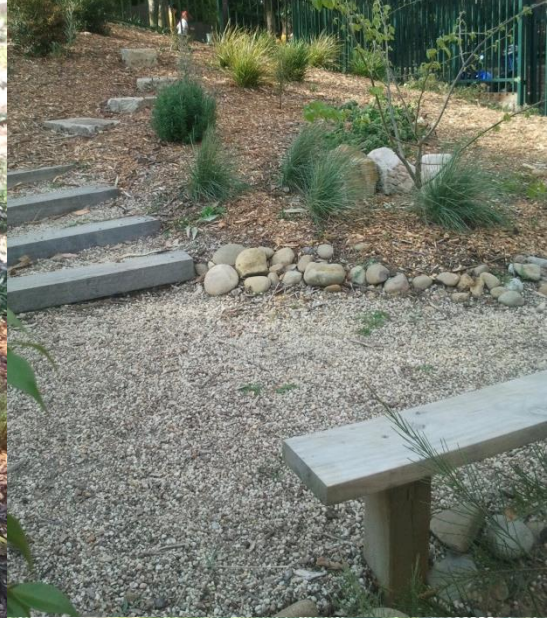
Georges Hall Public School



Minerva School sensory garden, Sutherland

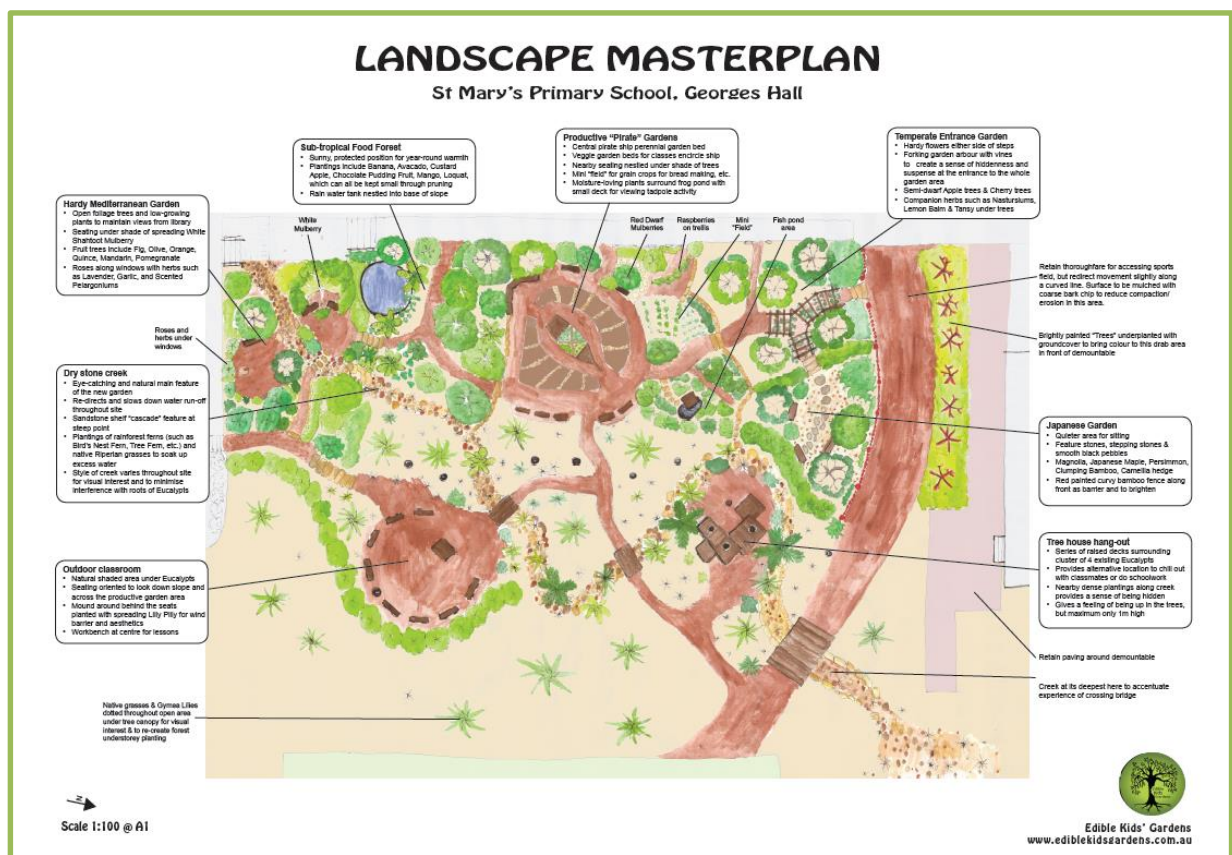
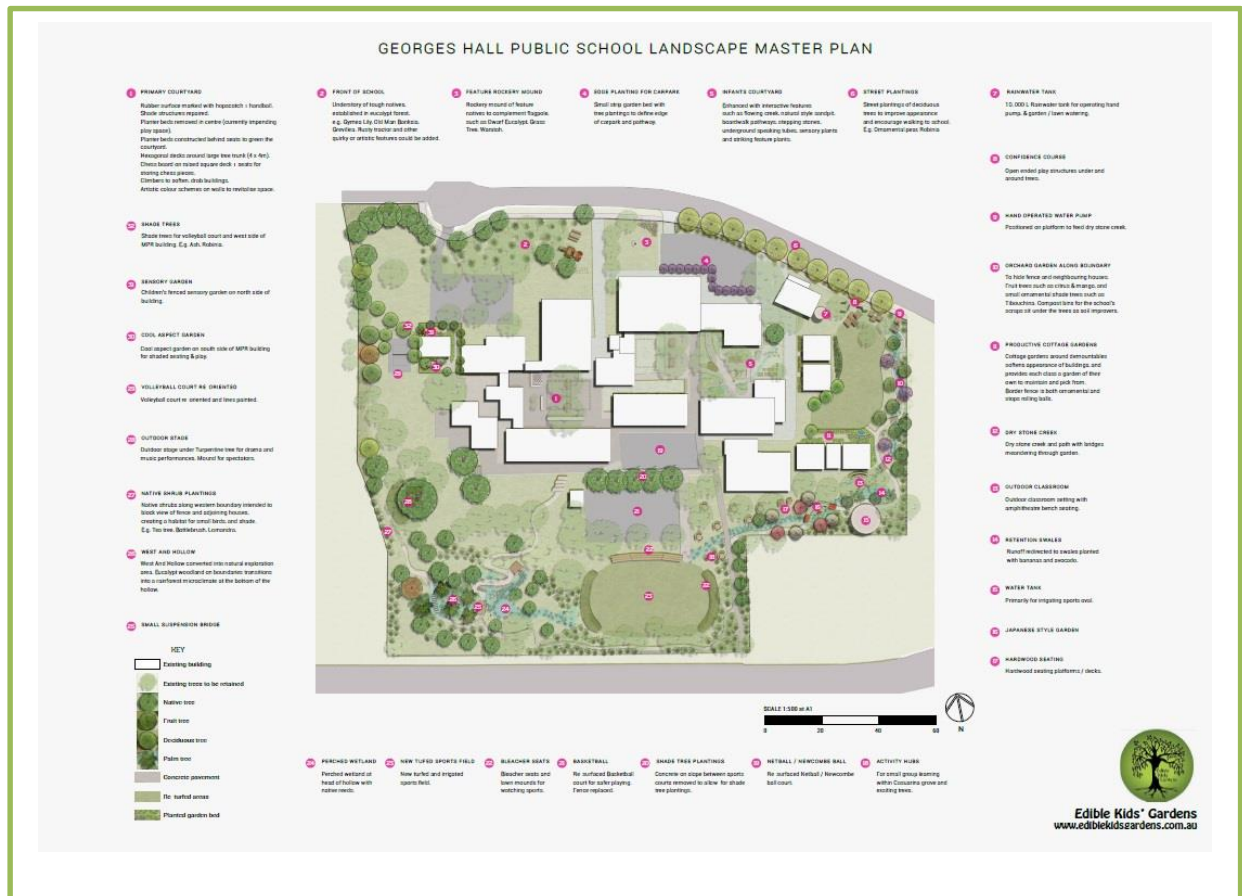


Leichhardt Public School sensory garden



Examples of Master Plans

Here are some School Master Plans which Edible Kids Gardens has prepared.



About the design team

Steve Webb is a Landscape Architect (UNSW) and experienced gardener living in the NSW Southern Highlands. He started Edible Kids' Gardens in 2008 with the aim to create inspiring, sustainable gardens to be enjoyed by the whole family. He specialises in therapeutic and sensory gardens and dynamic play spaces, and integrates his knowledge from his background in psychology (B. Soc. Sc. (Psychology) (Hons)) and counselling (M. Counselling & Applied Psychotherapy).

Chrissy Ognjenovic is an experienced Landscape Architect and brings her eye for detail and experience in garden maintenance, ensuring that horticultural diversity and design integrity are well balanced to create a beautiful, safe and memorable play space. Growing up next to a nature reserve has given her a keen sense of how children play in nature, and how important it is for a mental and social health.

Michael White has lived and breathed garden design and maintenance across Sydney for the past 25 years. With his background in Botany, Horticulture and Permaculture system design, he delights to create fun, edible spaces where children are able to create new worlds through free, imaginative play. His home garden, planted in a "Permaculture cottage" style, won a prize in the Randwick City Council Garden Competition. His long-term client's garden won 'Best New Garden in Woollahra', and another was selected both as Best Overall and Best Residential Garden in Randwick over three successive years.

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