

Enhancing Education Through Nature-Based Learning: A Comprehensive Analysis of Sorrento Primary School's Coastal School Program

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Executive Summary

The *Coastal School* program at Sorrento Primary School is an innovative pedagogical initiative that engages foundation-year students in weekly nature-based activities at Point Nepean National Park. Evidence demonstrates that outdoor play and exposure to nature stimulate cognitive, physical, social, and emotional development, aligning with broader efforts to introduce experiential learning into Australian education. Drawing on insights from institutions such as the Australian Institute of Family Studies and the Raising Children Network, this paper substantiates the program's contributions to students' holistic development and provides practical recommendations for implementing similar initiatives in other educational contexts.

Introduction

Sorrento Primary School, located on Victoria's picturesque Mornington Peninsula, exemplifies how schools can harness natural landscapes to create life-changing educational experiences. The *Coastal School* program sees foundation-year students spending every Monday exploring and learning within the diverse natural environment of Point Nepean National Park. This approach aligns with Australia's growing emphasis on embedding nature pedagogy into early education systems (Early Childhood Australia, 2020).

The program is underpinned by a philosophy that education should inspire curiosity, foster resilience, and build environmental awareness. Research confirms the efficacy of this approach, with outdoor programs shown to improve children's mental health, learning outcomes, and physical development (Australian Institute of Family Studies, 2024). At a time when children are increasingly disconnected from nature due to urbanisation and screen dependency, the *Coastal School* offers a valuable counter-model that redefines classroom boundaries.

Program Design and Implementation

Activities in Action

The *Coastal School* program employs a multidisciplinary model, integrating literacy, numeracy, science, and emotional learning into activities tailored to the natural environment. Each session includes mindful observation walks, ecosystem exploration, and cooperative challenges. Activities like building driftwood shelters, crafting with found objects, and

completing nature scavenger hunts help reinforce both academic concepts and critical life skills.

A vital feature of the program is its child-led approach. Students are encouraged to ask questions, explore their interests, and collaboratively shape each day's activities. This aligns with research highlighting the importance of autonomy in fostering deeper engagement and learning retention among young children (Raising Children Network, 2025).

Resilience Through Seasons

The program's year-round schedule ensures that children experience the full spectrum of seasonal changes, fostering a deep connection to the natural world. Rainy days promote sensory engagement as children splash in puddles, observe the sound of water hitting leaves, and feel the texture of wet sand. Sunny days invite exploration of open landscapes, while windy days provide opportunities to observe the movement of trees and waves, sparking curiosity about weather patterns.

As the seasons shift, children witness firsthand the transformations in their environment. They observe trees shedding leaves in autumn, budding in spring, and standing tall through winter's chill. Encounters with local wildlife—such as spotting migratory birds, noticing changes in insect activity, or discovering animal tracks in the sand—offer rich opportunities for learning about ecosystems and the life cycles of various organisms. These experiences not only enhance their understanding of the natural world but also cultivate a sense of wonder and respect for its rhythms.

This immersion in seasonal changes aligns with findings by Taylor & Francis Online (2022), which highlight that engaging with natural elements in varied contexts enhances resilience and confidence in children. By embracing the unpredictability of nature, students learn to adapt, persevere, and find joy in the ever-changing outdoor classroom.

Bringing Coastal School Back to the Classroom

The learning experiences at Coastal School don't end when the children leave the park; they ripple back into the classroom, enriching traditional learning in profound ways. Teachers report that students often draw on their outdoor adventures to enhance their understanding of academic concepts, fostering a seamless connection between nature-based learning and classroom activities.

1. Enhanced Storytelling and Creativity

Children frequently incorporate their Coastal School experiences into creative writing, art, and storytelling. Whether it's crafting a narrative about building a driftwood shelter or drawing a picture of the animals they encountered, these activities allow students to process and express their outdoor adventures in imaginative ways. This not only strengthens their literacy and artistic skills but also deepens their engagement with the curriculum.

2. Real-World Applications of Academic Concepts

The hands-on activities at Coastal School provide tangible examples that students can reference during classroom lessons. For instance, a scavenger hunt identifying native plants might later inform a science lesson on ecosystems, while building a shelter could serve as a practical example in discussions about geometry or engineering. These real-world

connections make abstract concepts more relatable and memorable.

3. Environmental Awareness and Advocacy

The program's emphasis on environmental stewardship often inspires students to initiate classroom discussions about sustainability and conservation. They bring back ideas for reducing waste, protecting wildlife, or caring for the school grounds, fostering a culture of environmental responsibility among their peers.

Evidence-Based Benefits of the Coastal School Program

Cognitive Development

Cognitive skills are significantly enhanced by immersion in nature. Studies from the Australian Institute of Family Studies (2024) indicate that exposure to natural environments enhances problem-solving abilities and improves memory retention. At "Coastal School," students demonstrate notable improvements in critical thinking via activities like identifying native plants or designing simple tools from natural materials.

Research by Raising Children Network (2025) highlights the role of outdoor play in enhancing creativity. For instance, the unstructured yet resource-rich environment of Point Nepean promotes imaginative storytelling and conceptual connections that are difficult to achieve in traditional classroom settings.

Physical Health and Fitness

Evidence consistently shows the physical benefits derived from dynamic interaction with natural terrains. Children participating in *Coastal School* frequently engage in activities like climbing uneven surfaces, balancing on logs, and running through open landscapes. The Australian Institute of Family Studies (2024) states that these activities build core strength, improve coordination, and reduce the risk of sedentary habits.

The program also aligns with Australia's national physical activity guidelines, which advocate for at least three hours of active play daily for young children (Raising Children Network, 2025). By integrating physical activity into the learning process, the program nurtures healthy habits and fosters an appreciation for outdoor recreation.

Emotional Wellbeing and Social Skills

Numerous studies underline the link between nature exposure and emotional regulation (Australian Institute of Family Studies, 2024). Through cooperative tasks like building shelters and solving group challenges, *Coastal School* enables students to practice empathy, teamwork, and conflict resolution.

The unstructured nature of the program encourages children to take calculated risks, such as climbing low trees or exploring rocky paths. According to research published by Early Childhood Australia (2020), such "risky play" fosters resilience and provides children with tools to manage their own boundaries.

Additionally, research from Taylor & Francis Online (2022) confirms that contact with natural environments reduces anxiety and improves mood. Feedback from parents and teachers at Sorrento Primary School highlights calmer demeanours, improved self-expression, and greater emotional awareness among participating students.

Cultural and Environmental Stewardship

A key aspect of the *Coastal School* program is fostering environmental responsibility. Activities include learning about Indigenous land practices, studying local flora and fauna, and participating in conservation tasks. This commitment aligns with the Nature Pedagogy principles, which advocate for sustainable education practices tied to local ecosystems (Early Childhood Australia, 2020).

The Western Australian program "Educated by Nature" echoes similar goals, demonstrating that prolonged exposure to outdoor learning environments cultivates a love for nature and a sense of stewardship among children (Educated by Nature, 2025). Sorrento Primary's incorporation of Indigenous perspectives has also deepened students' understanding of Australia's cultural heritage.

What Our Teachers Say

The Coastal School program has not only transformed the learning experiences of students but has also profoundly impacted the teaching community at Sorrento Primary School. Teachers involved in the program consistently highlight several key benefits that enhance their professional practice and the overall classroom environment:

1. Strengthened Teacher-Student Relationships

Spending time in a natural, unstructured environment fosters deeper connections between teachers and students. Teachers report that the relaxed setting of Point Nepean National Park facilitates more meaningful interactions, enabling them to better understand each child's unique personality, strengths, and challenges. This improved rapport translates into stronger relationships back in the classroom, creating a more supportive and collaborative learning atmosphere.

2. Improved Student Behaviour

Teachers have observed noticeable improvements in student behaviour, both during and after Coastal School sessions. The program's emphasis on teamwork, problem-solving, and self-regulation helps students develop essential social-emotional skills. Teachers note that students return to the classroom calmer, more focused, and better equipped to manage conflicts and challenges.

3. Enhanced Collaboration Among Educators

The multidisciplinary nature of the program encourages teachers to collaborate across subject areas, sharing ideas and strategies to integrate nature-based learning into the broader

curriculum. This collaborative approach not only enriches the program but also strengthens the professional bonds among staff, fostering a culture of innovation and mutual support.

4. Renewed Passion for Teaching

For many teachers, the Coastal School program has reignited their passion for education. The opportunity to teach in a dynamic, outdoor environment allows them to experiment with creative, hands-on approaches that are often constrained by traditional classroom settings. Teachers describe the program as a refreshing and inspiring departure from routine, reminding them of the joy and purpose that their profession brings.

5. Observing Holistic Growth in Students

Perhaps most rewarding for teachers is witnessing the holistic development of their students. From improved resilience and confidence to a growing sense of environmental stewardship, the program's impact is evident in every child. Teachers take pride in knowing they are contributing to a transformative educational experience that extends far beyond academic achievement.

Addressing Barriers to Implementation

Though programs like *Coastal School* offer numerous benefits, adopting similar initiatives can encounter challenges, including curriculum constraints and teacher readiness (Taylor & Francis Online, 2022). Nearly 68% of educators surveyed across South Australian schools reported a lack of confidence in integrating nature-based learning into their lesson plans.

To address these gaps, Sorrento Primary invests in professional development workshops, offering teachers training in flexible curriculum design and risk management within outdoor environments. Schools considering similar initiatives should also advocate for community partnerships, drawing on resources from local councils, parks, and nature organisations.

Recommendations for Other Schools

1. **Start Small:** Pilot weekly outdoor sessions at nearby parks to gauge logistical viability before scaling efforts.
 2. **Adapt Curriculum:** Incorporate flexible lesson plans that align outdoor activities with existing academic goals.
 3. **Teacher Training:** Offer workshops on nature pedagogy, risk management, and utilising local ecosystems.
 4. **Engage Families:** Host parent information sessions to highlight the developmental benefits of nature-based programs.
 5. **Collaborate Locally:** Build partnerships with local conservation groups, councils, and Indigenous educators to expand learning opportunities.
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Conclusion

The *Coastal School* program sets a benchmark for nature-based education in Australia. By leveraging the unique environment of Point Nepean National Park, Sorrento Primary School delivers measurable improvements in students' cognitive abilities, physical health, emotional well-being, and social skills. Backed by Australian research and supported by thoughtful implementation, this program demonstrates that nature can serve as a classroom without walls.

Expanding initiatives like *Coastal School* nationally could transform early childhood education, preparing students not only for academic success but also for a lifetime of environmental stewardship and resilience in an increasingly uncertain world.

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