

The Greening Project

E-guide:

Teaching the
National Curriculum
in one project!



www.thegreeningproject.org

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This E-guide is not meant as an exhaustive list of tasks in which to actually teach the national Curriculum in one project, but rather to give you ideas on ways in which teachers can use the Nursery in a Box project to teach the National Curriculum across a range of subjects.

We hope you use some of the ideas and have fun using nature as the greatest learning tool of any classroom!



CROSS CURRICULUM PRIORITY: SUSTAINABILITY

Sustainability addresses the ongoing capacity of Earth to maintain all life.

Sustainable patterns of living meet the needs of the present without compromising the ability of future generations to meet their needs. Actions to improve sustainability are both individual and collective endeavours shared across local and global communities. They necessitate a renewed and balanced approach to the way humans interact with each other and the environment.

Education for sustainability develops the knowledge, skills, values and world views necessary for people to act in ways that contribute to more sustainable patterns of living. It enables individuals and communities to reflect on ways of interpreting and engaging with the world. Sustainability education is futures-oriented, focusing on protecting environments and creating a more ecologically and socially just world through informed action. Actions that support more sustainable patterns of living require consideration of environmental, social, cultural and economic systems and their interdependence.

ORGANISING IDEAS

For each cross-curriculum priority, a set of organising ideas reflects the essential knowledge, understandings and skills for the priority. The organising ideas are embedded in the content descriptions and elaborations of each learning area as appropriate.

This table gives you an idea of how one simple project such as the growing of native seedlings in the **Nursery in a Box** can be used to teach a whole area of the curriculum. It is also an engaging, positive action which will stir in the minds of the children who participate for many years to come.

Code	Organising ideas	How the Nursery in a Box can be used
Systems		
OI.1	The biosphere is a dynamic system providing conditions that sustain life on Earth.	Trees and plants are an integral part of the dynamic system providing conditions that sustain life on Earth. Trees and plants (including sea algae) are the earth's lungs. They consume carbon dioxide and create oxygen which is a key component to sustaining life on Earth. Growing seedlings from seed in the Nursery in a Box is an active and engaging way to appreciate plant life.
OI.2	All life forms, including human life, are connected through ecosystems on which they depend for their wellbeing and survival.	Trees and plants provide humans and animals with vital food sources and shelter (or resources to create shelter), which maintain our health and well-being and are essential for our survival. Every animal depends on plant food being

		available in some way – even carnivores require their prey to eat plants! Growing food for birds, insects and other animals in the Nursery in a Box is an engaging way to appreciate this concept.
OI.3	Sustainable patterns of living rely on the interdependence of healthy social, economic and ecological systems.	Humans rely on green spaces around them for their health and well-being, as well as for food. Being in nature also makes us more community-minded and co-operative! Growing a Nursery in a Box native species garden is a positive action students can take towards greening their community and contributing towards the health of local ecosystems.
World Views		
OI.4	World views that recognise the dependence of living things on healthy ecosystems, and value diversity and social justice are essential for achieving sustainability.	Growing a Nursery in a Box native species garden to provide flowers for bees, birds and insects to thrive on is a positive action towards supporting the cycle of life in nature. Extension: What can the cultural traditions of Aboriginal and Torres Strait Islander people teach us about living in harmony with nature?
OI.5	World views are formed by experiences at personal, local, national and global levels, and are linked to individual and community actions for sustainability.	Students can create and support eco-systems on a local level by creating gardens of native species with their Nursery in a Box , and involve the community in their project.
Futures		
OI.6	The sustainability of ecological, social and economic systems is achieved through informed individual and community action that values local and global equity and fairness across generations into the future.	Students can choose to plant their Nursery in a Box seedlings into a garden used by others in their community with their assistance, e.g. an aged care home or disability support centre. As the students see their plants grow over time, there is the understanding of the impact of our actions on the future.
OI.7	Actions for a more sustainable future reflect values of care, respect and responsibility, and require us to explore and understand environments.	Growing a Nursery in a Box native species garden that benefits the community and the local environment reflect the values of care, respect and responsibility!
OI.8	Designing action for sustainability requires an evaluation of past practices, the assessment of scientific and technological developments, and balanced judgments based on projected future economic, social and environmental impacts.	The Nursery in a Box provides a platform concept for further research into revegetation as an appropriate action for sustainability, with particular reference to native species and water wise gardens.
OI.9	Sustainable futures result from actions designed to preserve and/or restore the quality and uniqueness of environments.	Growing a Nursery in a Box native species garden with plants that are endemic to an area is a positive action towards preserving and restoring the uniqueness of the local environment.

Note: Organising Ideas and introduction taken from www.australiancurriculum.edu.au

ENGLISH

Language

- Developing, asking and answering questions about different aspects of the Project.
- Working with partners and small groups during the Project.
- Reading and constructing texts such as narratives, procedures, reports, descriptions, poems, journals and persuasive texts, etc. that explore different aspects of the Project.
- Use online texts to gather further information on topics linked to the Project.
- Discuss and use words associated with the Project to extend the vocabulary of students.
- Use and discuss different types of words (nouns, adjectives, verbs and adverbs) that can be used when discussing different aspects of the Project.

Literature

- Compare stories about plants and nature with what students experience during the Project.
- Compare opinions associated with the Project.
- Create texts such as narratives, procedures, reports, descriptions, poems, journals that explore different aspects of the Project.

Literacy

- Examine the types of texts that may be needed in the successful completion of the Project such as; instructions, procedures, information reports. Discuss the features of such texts and their purposes.
- Gather information associated with the Project from a range of spoken and written texts, including online texts.
- Communicate questions, observations and findings about the project to others using verbal, written and other forms of communication.
- Make short presentations to familiar audiences to share observations and knowledge gained throughout the duration of the Project.
- Examine the point of view of others regarding the Project and other associated issues such as; conservation, pollution, etc.
- Create texts such as narratives, procedures, reports, descriptions, poems, journals that explore different aspects of the Project.

MATHS

Number and Algebra

- Practice writing numbers and naming numerals in relation to counting plants, seedlings, flowers, insects, birds, etc.
- Basic addition, subtraction, multiplication and division problems relating to observations made during the Project.
- Discuss and represent the idea of halves, thirds, quarters, fifths and eighths when measuring plants, water etc. in relation to the Project.
- Investigate the cost and financial side associated with the Project.

Measurement and Geometry

- Measure and compare the length, area, capacity and mass of objects associated with the Project using standard units of measure.
- Connect the days of the week, months of the year and seasons to the care routine and growth and change observed during the Project.
- Describe the position and movement of plants, seedlings, flowers, insects, birds, etc. observed during the project.
- Create and interpret simple maps, path, plans and grids.
- Discuss symmetry and other geometric patterns. Use items such as leaves from the Nursery to investigate these ideas.

Statistics and Probability

- Conduct chance experiments, identify and describe possible outcomes and recognise variation in results. Chance experiments associated with the Project might include; the chance of it raining, which plant will grow the fastest or the tallest, etc.
- Ask questions, identify data sources and plan methods of data collection and recording. For example; which plant is your favourite? Which Project job do you like doing the most?
- Collect, check and classify such data.
- Represent collected data using pictures, tables, tallies and simple graphs.
- Compare data displays.

SCIENCE

Science Understanding

- Recognising characteristics of living things such as growing, moving, sensitivity and reproducing.
- Recognising the range of different living things.
- Sorting living and non-living things based on characteristics.
- Exploring differences between living, non-living and once living things.
- Investigating how liquids and solids respond to changes in temperature.
- Exploring how changes from solids to liquids and liquids to solids can help us recycle materials.
- Recognising the sun as a source of heat and light.
- Constructing sundials and investigating how they work.
- Describing time scale for the rotation of the Earth.
- Modelling the relative sizes and movements of the sun, Earth and moon.
- Describing how heat can be produced.
- Identifying changes that occur in everyday situations due to heating and cooling.
- Exploring how heat can be transferred through conduction.
- Recognising that we can feel heat and measure it using a thermometer.

Science as a Human Endeavour

- Making predictions about change and events in our environment.
- Considering how posing questions can help us plan for the future.
- Considering how heating affects materials used in everyday life.
- Considering how materials including solids and liquids affect the environment in different ways.
- Deciding what characteristics make a material a pollutant.
- Researching Aboriginal people's knowledge of the local natural environment such as the characteristics of some plants and animals.

Science Inquiry Skills

- Respond to and pose questions and make predictions associated with the Project.
- Suggest ways to plan and conduct investigations to find answers to questions. These questions might be along the lines of; how the amount of sunlight or water affects the growth of the plants? Adding different types of fertilisers to plants and observing what happens. Adding substances such as sugar, salt, etc. to the water used for watering the plants and observing differences in plant growth.
- Safely use appropriate materials, tools and equipment to make and record observations using formal measurements.
- Use a range of methods including tables and graphs to represent data and identify patterns and trends.
- Compare results with predictions, suggesting possible reasons for findings.
- Reflect on investigations, suggesting whether a test was fair or not.
- Represent and communicate ideas and findings in a variety of ways.

HISTORY

Historical Skills

- Sequence the different observable stages of the Project.
- Distinguish between the past, present and future stages of the Project.
- Ask questions about the use of different tools and pieces of equipment needed to successfully complete the project.
- Compare and contrast pictures and photos of gardens and garden tools from the past and present.
- Ask different family or community members their opinions on the Project and discuss point of view.
- Develop narratives and stories about the Project.

GEOGRAPHY

Geographical Knowledge and Understanding

- The main climate types of the world and similarities and differences between the climates of places. Investigate how this affects the types of plants and animals that live in different areas of the world.

Geographical Inquiry and Skills

- Ask questions about locations and their characteristics.
- Collect and record geographical data and information by observing, interviewing and from sources such as photos, plans, books and films.
- Represent data and location of places and their features using tables, plans and maps.
- Interpret geographical data to identify distributions and patterns and draw conclusions about the similarities and differences between locations and their characteristics.
- Communicate observations and findings to others using a range of communication methods, using geographical terminology.
- Students reflect on their learning to propose individual action in response to a contemporary geographical challenge and identify the expected effects of the proposal.