

## Sustainable Gardening VELS Guide Levels 1 - 4

### Strand: **Physical, Personal and Social Learning**

The Sustainable Gardening program is designed for a range of students from Primary through to Secondary Schools. Within the strand, **Physical, Personal and Social Learning** our sustainable gardening program is able to include criteria in each of the domains however its main emphasis is in the domains of Civics and Citizenship and Health and Physical Education.

### Domain: **Health and Physical Education**

**The Sustainable Gardening program is designed to complement the dimension of Health Knowledge and Promotion by engaging students in planting and harvesting food. It will identify plants as a valuable food choice in a healthy diet. It can also focus on social and cultural reasons for food choices. Safe food handling practices are also encouraged.**

#### **Learning Focus:** Levels 1 & 2

As students work towards the achievement of Level 3 standards in the *Health knowledge and promotion* dimension, they explore basic health needs that must be met to maintain or promote their health and to help them grow and develop.

With guidance, they learn to make healthy food choices according to healthy eating models, and to consider the factors that influence their choice of foods. They begin to recognise the importance of variety and frequency of food consumption for an active and healthy life.

#### **Standards:** Level 3

#### **Dimension:** Health knowledge and promotion

They describe how physical and social components in the local environment contribute to wellbeing and identify how health services and products address the health needs and concerns of the local community. They identify healthy eating practices and explain some physiological, social, cultural and economic reasons for people's food choices.

#### **Standards:** Level 4

#### **Dimension:** Health knowledge and promotion

They analyse and explain physiological, social, cultural and economic reasons for food choices and analyse and describe food selection models. They describe how to prepare and store food hygienically.

### Domain: **Interpersonal Development**

**Interpersonal Development is not a major domain emphasised within this program however in the Sustainable Gardening Program students will work within a team environment in order to complete tasks set, such as planting and harvesting. They will interact with presenters and volunteers in the Kitchen Garden.**

#### **Standards:** Level 2

#### **Dimension:** Building social relationships

At Level 2, students behave appropriately in a range of social situations. They identify the feelings and needs of other people. Students identify and accept that there are consequences for their actions.

#### **Standards:** Level 3

At Level 3, students demonstrate respect for others and exhibit appropriate behaviour for maintaining friendships with other people. They support each other by sharing ideas and materials, offering assistance, giving appropriate feedback and acknowledging individual differences. They work with others to reduce, avoid and resolve conflict.

#### **Standards:** Level 4

At Level 4, students demonstrate, through their interactions in social situations, respect for a diverse range of people and groups.

Domain: **Personal Learning**

**In this program students are encouraged to listen, ask questions and clarify understandings.**

**Learning Focus:** Levels 1 & 2

Students reflect on their own learning by responding to prompts such as, 'What do you know now that you didn't know before?'

Students are provided with opportunities to learn with peers and to share their feelings and thoughts about learning with others. They begin to understand that listening to the responses of others can assist them to make sense of new experiences and provide useful cues for their own learning. Students are encouraged to take risks with their learning and begin to understand that mistakes can be a vehicle for further learning.

**Standards:** Level 3

**Dimension:** The Individual Learner

They seek teacher feedback to develop their content knowledge and understanding.

Domain: **Civics and Citizenship**

**The Sustainable Gardening Program has a major focus in this domain. It encourages sustainable systems of growing plants incorporating a variety of concepts such as using worm farms, compost, companion planting, and organic methods of pest control. Students are able to interact with presenters and volunteers and gain insights into gardening communities and care for the environment. Knowledge regarding their contribution towards caring for the environment and becoming aware of environmental issues is fostered. It is also possible for students to use the information gathered in the session in order to explore other issues back at school.**

**Learning Focus:** Levels 1 & 2

Students learn about and celebrate special cultural, local, community and national days; for example, school sporting events and Clean Up Australia Day. They engage in school and cultural events in a responsible and active way.

Students begin to participate in a range of class and school activities such as recycling, taking responsibility for class resources, and marking local and national celebrations and commemorations.

Students investigate the ways individuals, families, groups and communities can work to improve their environment

**Learning Focus:** Level 3

Students learn about the different types of groups in the community and their functions; for example, school groups and local volunteer groups such as charitable and environmental organisations. From their research, they develop knowledge about their community and environment, and a sense that individuals' contributions can care for and improve the environment, their own lives and the lives of others.

**Standards:** Level 3

**Dimension:** Community Engagement

They explain why protection and care for the natural and built environment is important.

**Standards:** Level 4

**Dimension:** Community Engagement

At Level 4, students demonstrate understanding of the roles and responsibilities of leaders, and of democratic processes, when engaging in school and community activities. They present a point of view on a significant current issue or issues and include recommendations about the actions that individuals and governments can take to resolve issues. They demonstrate understanding that there are different viewpoints on an issue, and contribute to group and class decision making.

Strand: **Discipline – Based Learning**

The Sustainable Gardening program is designed for a range of students from Primary through to Secondary Schools. Within the strand, **Discipline - Based Learning** our Sustainable Gardening Program is able to include criteria in most of the domains however its main emphasis is in the domains of the Humanities and Science. English is a domain that is also supported through this program. The students use their senses and observations to make generalisations and to explore the material that is provided however it is not specific to this domain. The domains of Art, Mathematics and LOTE are not targeted to this program

Domain: **The Humanities**

**The Sustainable Gardening Program has a major focus in this Domain. Within the program they develop an awareness of environmental issues concerning recycling, worm farming, composting, water conservation and organic methods of pest control. They develop an awareness of how they can contribute to sustainable gardening practices that enhance the environment and cater for people's needs. It is also possible to draw upon the Geographical Knowledge and Understanding Dimension, by exploring how the RBG site and horticultural practices have changed over time. Under the Dimension, Economic Knowledge and Understanding, an awareness of how food resources are produced, the needs of people and the importance of being an informed consumer can also be explored.**

**Learning Focus:** Level 1 & 2

As students work towards the achievement of Level 3 standards in the Humanities, they draw on their own experience to help them understand the world around them.

Students explore how and why natural factors (for example, changes in the weather) and human activities (for example, the closing of a park) affect their lives. They develop basic narratives that link events in their own experience. Participating in activities such as wearing protection from the sun, saving energy, saving water, and recycling, they develop their awareness of environmental issues.

Students are introduced to the concept of resources and their management, and begin to understand how resource use reflects community interdependence and economic sustainability. They begin to understand how local resources are used to make products, which meet local people's needs and the needs of people in other places. They also begin to understand that resources from other places may be used to make products locally to meet their needs.

**Standards:** Level 3

**Dimension:** Humanities knowledge and understanding

They describe how aspects of places in their local area have changed over time. From direct observation or observation of a variety of media, they describe the human and physical characteristics of their local area and other parts of Victoria. They describe how people use and affect different environments in Victoria.

**Standards:** Level 4

**Geography**

**Dimension:** Geographical knowledge and understanding

They compare the various ways humans have used and affected the Australian environment. Students recommend ways of protecting environmentally sensitive areas in a sustainable way.

**Economics**

**Dimension:** Economic knowledge and understanding

At Level 4, students describe the nature of the economic problem (scarcity) and explain how selected goods and services are produced and distributed. Students describe the difference between needs and wants, and their own roles as producers and consumers of goods and services. They explain the need to be an informed consumer.

Domain: **Science**

The Sustainable Gardening Program has a major focus within this domain. Students use their senses to explore the garden and discuss living and non-living things. Seasonal produce is also planted and harvested. Student's propagate plants and are then able at school to record growth over time and make hypotheses and generalisations about factors that encourage plant growth. Students are exposed to recycling, composting, worm farming, water conservation, food chains and organic methods of pest control. They are also exposed to concepts such as plant survival, life cycles, plant systems and function, and plant / animal connections. They are able to observe man's influence on the environment and efforts that are made to become environmentally friendly and create sustainable gardens.

**Learning Focus:** Levels 1 & 2

As students work towards the achievement of Level 3 standards in Science, they use their senses to explore the world around them; for example, day and night, the seasons, and living and non-living things. They describe their activities and observations using both general and science-specific language; for example, *hard, soft, long, short, big, small, strong and weak*.

Through sorting objects according to basic criteria such as size, shape, colour and [weight](#), they identify and describe the similarities and differences between them. By participating in very simple [investigations](#) involving observation and measurement (for example, making and flying kites, saving water and measuring plant growth) they learn about basic procedures and processes, including collecting and recording data. They display, and make generalisations from their data. They become aware of using safe procedures in their activities.

Students begin to generate questions about situations and phenomena, and suggest forms of observations and measurements that are appropriate for the investigation of their questions; for example, 'Which keeps food fresher, paper or plastic?' and 'What makes sounds change?' They continue to practise basic procedures and processes, including those involving safety. They investigate ways of reducing waste in their classroom; for example, recycling and composting.

They repeat observations over time to make predictions; for example, collecting data about the weather. They begin to recognise simple patterns in data and describe them in terms that represent conclusions drawn from the data. Suitable questions may include: 'Does the size of seeds affect the time taken for them to germinate?', 'Does all chocolate melt at the same temperature?' and 'Are shadows the same size?'

**Standards:** Level 3

**Dimension:** Science knowledge and understanding

Students identify and describe the structural features of living things, including plants and animals. They identify how these features operate together to form systems which support living things to survive in their environments. They distinguish between biotic and abiotic factors in their environment and describe interactions that occur between them. They describe natural physical and biological conditions, and human influences in the environment, which affect the survival of living things.

**Standards:** Level 4

**Dimension:** Science knowledge and understanding

They identify and explain the relationships that exist within and between food chains in the environment.

**Dimension:** Science at work

At Level 4, students analyse a range of science-related local issues and describe the relevance of science to their own and other people's lives. They explain how sustainable practices have been developed and/or are applied in their local environment.

**Strand: Interdisciplinary Learning**

**The Sustainable Gardening program is designed for students from Primary levels through to Secondary. Within the Interdisciplinary Learning Strand the Sustainable Gardening Program is able to include criteria in each of the domains with the exception of Information and Communications Technology.**

**Domain: Communication**

**Students listen to information provided but are also asked to interact with their presenters, formulate questions and draw on their own personal experiences. Students are also asked to interact with their peers in order to complete tasks.**

**Learning Focus:** Levels 1, 2 & 3

As students work towards the achievement of Level 4 standards in Communication, they begin to identify basic communication conventions in the classroom and playground such as being attentive listeners, facing the speaker, and taking turns. They learn to focus their attention and to listen without interrupting. Students practise retelling what a speaker has said to them and learn to ask questions when appropriate, exploring the interactive nature of communication.

When communicating with others, students begin to distinguish between differing contexts, purposes and audiences and they learn to modify their communication accordingly; for example, when playing with friends in the playground and talking to classroom visitors.

As students work towards the achievement of Level 4 standards in Communication, they listen attentively when required and learn to respond and interject appropriately. They learn about appropriate body language when reacting to a speaker and use feedback from peers and the teacher on their own body language to improve their reactions. They practise paraphrasing what a speaker has said to check meaning and ask clarifying questions where meaning is unclear.

**Standards:** Level 4

**Dimension:** Listening, viewing and responding

At Level 4, students ask clarifying questions about ideas and information they listen to and view. They develop interpretations of the content and provide reasons for them. They explain why peers may develop alternative interpretations. They describe the purpose of a range of communication strategies, including non-verbal strategies, and evaluate their effectiveness for different audiences.

**Domain: Design, creativity and technology**

**In the Sustainable Gardening program students explore natural materials and discuss how gardens can recycle materials. Students will use simple tools to help them plant and harvest materials and discuss the appropriateness and safe handling of those tools. Students may also consider designing small hothouses for their propagations back at school. Students also make a herbal tea bag using a simple joining technique.**

**Learning Focus:** Levels 1, 2

As students work towards the achievement of Level 3 standards in Design, Creativity and Technology, they investigate everyday, familiar [products](#) and recognise the basic characteristics and [materials](#)/ingredients from which they are made and how they are used. They explore the differences between natural products and artefacts, and learn that materials can be recycled and reused to produce new products. They play with and manipulate materials/ingredients in both a free and focused manner to foster development of their [design](#) and technical skills. They learn appropriate terminology, including the names of materials/ingredients and their characteristics and properties (for example, rough, smooth, shiny, soft, flexible), and processes such as measure, mix, cut, join. Students begin to recognise relationships between individuals and communities, and products, [processes](#) and systems; for example, a transport system. Responding to open-ended design tasks, students develop imaginative and practical design solutions to problems, needs and opportunities; for example, making a simple decorated bag for carrying personal items, modelling playground equipment, or making pots to grow herbs for use in a food product.

Students follow a set of instructions and may begin to contribute to planning the main steps to make a product. They explain what they are making and which tools and equipment they are using. They safely use tools and equipment to separate, assemble, join and combine everyday materials/ingredients and systems components in a variety of ways.

**Standards:** Level 4

**Dimension:** Producing

The students will be using a plan identified by horticultural staff and this varies due to the nature of the kitchen garden and what is required at the time.

At Level 4, students use their production plan and select and work safely with a variety of materials/ingredients and systems components to produce functional products and/or systems. They use a range of measuring, marking, joining/combining techniques to alter materials and finishing/presentation methods, and operate tools and equipment competently, showing consideration of safety and hygiene, and record their progress.

Domain: **Thinking Processes**

**Throughout the presentation the children use their senses to explore the material that is provided, they harvest and plant seeds and become aware of sustainable gardening practices such as worm farming, and composting. Students are encouraged to ask questions, collect information from a variety of sources and activities and interact with presenters and their peers.**

**Learning Focus:** Levels 1 & 2

As students work towards the achievement of Level 3 standards in Thinking Processes, they explore a wide variety of familiar contexts. With encouragement and support, they wonder, question and become adventurous in their thinking about these contexts. Students practise using all of their senses to develop skills in making observations which they share and record.

As students work towards the achievement of Level 3 standards in Thinking Processes, they explore the community and environment around them, and increasingly consider contexts and information, which lie beyond their immediate experience. Questions and wondering are encouraged, recorded and shared, and become the basis for further learning.

Students develop their skills in making accurate observations about people and events, and they begin to use a variety of means to record their observations. They develop their own explanations for the observations they make and learn to question the accuracy of other people's explanations. They begin to understand that people are more likely to believe an explanation if evidence or reasons are provided. They develop their skills in using a range of sources of information when investigating selected questions.

**Standards:** Level 3

**Dimension:** Reasoning, processing and inquiry

At Level 3, students collect information from a range of sources to answer their own and others' questions. They question the validity of sources when appropriate. They apply thinking strategies to organise information and concepts in a variety of contexts, including problem solving activities. They provide reasons for their conclusions.

**Standards:** Level 4

At Level 4, students develop their own questions for investigation, collect relevant information from a range of sources and make judgments about its worth. They distinguish between fact and opinion. They use the information they collect to develop concepts, solve problems or inform decision making. develop reasoned arguments using supporting evidence