

STEM in the Orchard Program

Post-excursion resource

Design your own Kitchen Garden

Level 3 – Level 6



Grade 3 - Grade 6

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Students plan, design and construct a kitchen garden for food consumption at school. They consider nutrient requirements and optimal growing conditions for plants. Students investigate the types of plants, crop rotations, seasons, construction and ongoing maintenance. Students develop a respect for food, food producers, living things and the environment, while working collaboratively with others, thinking creatively and learning authentically.

Key Topics

- · Design and construction
- Healthy eating
- · Connecting with the natural environment

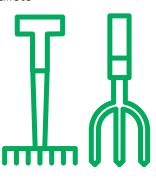
Materials required

Research, design and planning

- · Computer and access to the internet
- Poster paper, glue, scissors
- · Graph paper
- Writing materials
- · Notebook, sketch pad

Kitchen garden

- Appropriate site to establish the kitchen garden
- Seeds or seedlings (vegetables)
- Small fruit trees
- Soil mix
- Straw
- · Gardening equipment: watering cans, gloves, buckets, spades, shovel
- Access to water (hose or tap)
- Raised garden beds or pallets
- Other: slug pellets, netting
- Mobile phone to take photos









Building a kitchen garden is an exciting challenge but it does take a team of people and a lot of commitment. Don't give up, it's very rewarding!

In small teams, students must complete the following numbered tasks. They use the statements and questions as a guide. Students present their work as a PowerPoint or poster presentation.

1. Research and build a team

- Identify the needs and opportunities for a school kitchen garden and discuss reasons why it would be a good idea.
- Identify and justify the personal reasons why a kitchen garden is a good idea.
- Consider the variety of users and their needs.
- · Remember to start small.

2. Plan and design your garden

- Draw and label a plan of the kitchen garden including a key.
- List all the components that are to be included in the kitchen garden design.
- Explain valid reasons for choices, e.g. raised beds for easy planting, good access and they could be moved if necessary.

3. Materials

- Do you have a local nursery you could visit to get some ideas and seedlings from?
- Consider safety and aesthetics of the garden for the users.
- Justify the inclusion of a water tank for sustainability.
- Justify reasons for inclusion of a shed and fences
- Identify ways of recycling nutrients in the designed solution.

4. Maintenance and sustainability

- · Who will maintain the kitchen garden?
- Who can you reach out to that will support the ongoing maintenance?
- Does your school have volunteers or a school grounds person?
- Does your school have an existing kitchen garden that needs help or new ideas.
- · How will students be involved?
- Is there a student green team?

5. The costs

- Who is going to pay for the kitchen garden and ongoing maintenance?
- Could your school apply for a grant?
- How much do you think it will cost?

6. Celebrations

 How will you recognise the help and support of others?

7. Present your project

Student presentations to peers.

8. Create a kitchen garden

Using the findings from the students' projects, select either the best presentation or elements of each of the presentations to create a whole class kitchen garden.

- Measure and mark out the planned garden space.
- Build the garden structure or place the garden beds.
- Test and prepare the soil. This is essential to ensure your plants survive. If your garden space already has dirt available, a soil test can determine what nutrients can be added to help the plants thrive.
- Plant and label the garden.
- Water the garden on a regular basis.







Photo diary

After your kitchen garden is established ask students to make a photo diary of the changes they see over time, outline the challenges they faced and the solutions they implemented.

Garden tours

Student-led guided tours of the kitchen garden are a great way to assess students' knowledge of the project and are also a lot of fun. They can invite younger students, teachers or parents to join them. Using the kitchen garden in a parent-teacherstudent conference is a great way to share student learning.



Suggestions for assessment

The group PowerPoint or poster presentation forms the majority of the assessment. The installation and individual contribution towards the whole group kitchen garden for ongoing use and learning can also be included towards the assessment.



Level 3-4

Curriculum links

The Victorian Curriculum **Design and Technologies**

Investigate food and fibre production used in modern or traditional societies (VCDSTC025).

Generate, develop, and communicate design ideas and decisions using appropriate technical terms and graphical representation techniques (VCDSCD029).

Select and use materials, components, tools and equipment using safe work practices to produce designed solutions (VCDSCD030).

Evaluate design ideas, processes and solutions based on criteria for success developed with

guidance and including care for the environment and communities (VCDSCD031).

Plan a sequence of production steps when making designed solutions (VCDSCD032).

Design and Technologies

Level 5-6

Investigate how and why food and fibre are produced in managed environments (VCDSTC035).

Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions (VCDSCD038).

Generate, develop, communicate and document design ideas and processes for audiences using appropriate technical terms and graphical representation techniques (VCDSCD039).

Apply safe procedures when using a variety of materials, components, tools, equipment and techniques to produce designed solutions (VCDSCD040).

Negotiate criteria for success that include consideration of environmental and social sustainability to evaluate design ideas, processes and solutions (VCDSCD041).

Develop project plans that include consideration of resources when making designed solutions (VCDSCD042).



Background information

Grants

Seeking funds to support your school's kitchen garden is a great way to start.

The Victorian Schools Garden Program (VSGP) has a range of grant opportunities starting from \$500 for schools to create a new garden or maintain an existing one.

More information and application forms can be found at www.vsgp.org.au/vsga-grants-program/.

The VSGP also has a range of resources for schools including gardening guides and curriculum links. Visit www.vsgp.org.au.