

Why Organic?

The Australian Organic Schools (AOS) Program is an Australian Curriculum Assessment Reporting Authority (ACARA) aligned, complimentary program, designed to profile the Organic Industry within Australia.

The project is comprised of three units, each fully researched, with lesson plans, worksheets, inquiries and or practical activities. Under the ACARA Cross Curriculum Priority of Sustainability, carefully curated to increase awareness on how Organic Principles and Practices interact and impact on Environmental Systems.

Students will become aware of ways they can contribute to more sustainable patterns of living all the while continuing to diversify their current world views. Although this program has been specifically developed to follow the ACARA standards, it maintains meaningful links from Australian Schools curriculums.



Teacher Notes

While the core focus is on Cross Curriculum Priority: Sustainability, content has been thoughtfully considered to ensure consistent relevance across a variety of Learning Areas. As a result, the program can be easily integrated into pre-existing curriculums in many ways.

**“Australia holds the largest
area of land under certified
organic management in the
world.”**

Australian Organic Market Report
2021

Cross-Curriculum Priority: Sustainability

The primary focus of this program is the Cross-Curriculum Priority of Sustainability. For the purposes of this program sustainability is defined as a 'production system that sustains and improves the health of soils, ecosystems, and people'.¹ The way in which the Environmental Systems interact to support and maintain human life, as well as appreciating and respecting diversity of views and values has been woven throughout the program. The project encourages critical thinking, allowing students to expand their ability to be futures-orientated by coming to understand how important their choices are in determining how current and future generations may meet their needs such as the factors that affect sustainable development.

Organising Ideas

Systems

- 01.1 The biosphere is a dynamic system providing conditions to sustain life on Earth.
- 01.2 All life forms, including human life, are connected through ecosystems on which they depend for their wellbeing and survival.
- 01.3 Sustainable patterns of living rely on the interdependence of healthy social, economic and ecological systems.

Futures

- 01.7 Actions for a more sustainable future reflect values of care, respect and responsibility, and require us to explore and understand environments.
- 01.9 Sustainable futures result from actions designed to preserve and/or restore the quality and uniqueness of environments.

Content Descriptors

This program takes keen focus on highlighting the General Capabilities of Literacy and Critical & Creative Thinking within the sustainability framework. However, many opportunities exist for teachers to look at expanding lessons to include other General Capabilities in accordance with their own curriculum requirements. Thoughtful links between Learning Areas include: Years 9 and 10 Science, (specifically Strands, Science Understanding, Science as a Human Endeavor, Science Inquiry Skills), Year 9 Geography, Strands: Knowledge and Understanding (with strong links to Unit 1: Biomes and food security and some application to Unit 2: Geographies of interconnectedness), Geographical Inquiry and Skills and Year 10 Geography, Strands: Geographical Knowledge and Understanding (Unit 1: Environmental change and management) and Geographical Inquiry Skills. Meaningful connections can also be observed within the Year 10 History Strand of Historical Knowledge and Understanding. In addition, Years 9 and 10 Economics and Business also offer some areas for inclusion, specifically Strands: Economics and Business Knowledge and Understanding, Economics and Business Skills.

The Three Dimensions of the Australian Curriculum



Source: Australian Curriculum, Assessment and Reporting Authority (ACARA), downloaded from the Australian Curriculum website, August 2020

Understanding the Program

Teachers will observe that within this program there are some Learning Areas which are more fully represented than others. The overarching focus question, Why Organic? has been thoughtfully integrated. The result is a diverse and engaging program, broadening understanding of the ways students may contribute to the sustainability of their environment.

The focus areas offer the student a self-guided approach to their learning. Students are empowered to direct and present their research in their own way. The program aims to encourage students to be inquisitive about their world, developing knowledge about how dramatically interconnected their Earth is. Students learn how they can affect change by making informed decisions about the world around them.

All subject matter is based on the Australian Curriculum, Assessment and Reporting Authority (ACARA) downloaded from the Australian Curriculum website in July, 2020. ACARA does not endorse any changes that have been made to the Australian Curriculum.

Students' understanding of where food comes from and how it gets from the farm to the table directly affects their ability to be active and informed citizens.

ACARA 2020

Using this Program

This program has been crafted for implementation in several ways. Teachers may wish to utilise the whole program as an intensive subject focus for use all at once over several days or a few weeks. Alternatively, teachers may choose to deliver the program over the duration of a term, one focus question completed weekly, when and where it is most applicable to the subject content of their individual curriculum needs. For students to be eligible to qualify for entry into the Australian Organic Schools Competition all focus questions need to be addressed and submitted via email to organicschools@austorganic.com.

Why Organic?

An investigation into the Australian Organic Industry

This study is a 10-part inquiry designed to bring focus to the Australian Organic Industry. The question Why organic? is the cornerstone of this project and will form the reference point for each part of the investigation. Your job is to develop a document that may be used to explain all about the organic industry in Australia.

The final document needs to be presented in a way that anyone, even someone who has never heard of the term 'organic' can understand it. You need to unpack the many facets of the Organic Industry from the farm to consumption to waste and back to creating your own productive garden.

The project has been broken into three categories: From Farm to Me, Organic for Brain, Body & Being and Get Growing. Each of these categories has been further subdivided into areas of focus, complete with their own inquiry questions. These inquiry questions (10 in total) will direct your research and help outline and build your project.

Summations regarding each of these categories has been included as a starting point. Additional information including links to relevant videos has been included as part of the Resources section of the project. Do not forget to reference your findings where appropriate. Utilisation of graphic representations of data such as graphs, Venn diagrams and tables may also be beneficial to showcase research.

The final document can be presented in a variety of ways eg. PowerPoint presentation, Newspaper, Report, Oral Presentation, Poster or an Information Brochure/Pamphlet. To qualify for an entry into the Term Prize Competition each of the focus questions has to be addressed, and the document must be submitted to organicschools@austorganic.com. Be sure to include the project title, your name, age and school in the subject line.

Unit 1: From Farm to Me

This section of the project is designed to bring focus to where food comes from and what processes it undergoes to get from the farm to the table.

Explanations about the differences between organic farming practices and conventional/traditional farming practices as well as the specific requirements for gaining organic certification in Australia need to be explained.

Focus questions:

- Where does produce (eg. Fruit and vegetables) come from? What processes does the produce undergo to get from the farm to the table? **Hint:** Look into food miles.
- What are the differences between organic farming practices and conventional farming practices? **Hint:** Think about sustainability and refer to Fast Facts About the Australian Organic Industry contained in the Resources.
- Explain the requirements for organic certification in Australia. Be sure to reference the many different sectors of the Australian Organic Industry.



Unit 1: From Farm to Me

Overview

Organic Farming can be thought of as proactive, sustainable farming, looking to prevent problems before they arise. Soil health is maintained and ultimately improved over time as organic agricultural practices do not involve the use of synthetic pesticides or herbicides. Employing practices that protect the soil and environment in the present all-the-while looking to benefit the environment into the future.

The Australian Organic Industry is comprised of many, many sectors. To make it easier, think of the sectors in groups: Livestock (Cattle, Dairy, Chicken and Eggs, Pigs, Sheep & Goats), Horticulture (Grain, Viticulture, Fresh Fruit & Vegetables), Processing & Manufacturing (Packaged Food & Beverages, Cosmetics and Skin Care, Garden & Housecleaning Products) and Distribution & Handling (Wholesale/Import/Export, Restaurants & Prepared Food Suppliers, Retailers, Butchers, Transport & Storage Operations, Markets incl Farmers Markets).



Currently the only way to be certain a product is genuinely organic is to look for a certification logo. In Australia there are several certification bodies. The most recognised is the Australian Certified Organic 'Bud' logo:



Unit 2: Organic for Brain Body & Being

How organic consumption benefits your brain, body and being is the focus of this part of the investigation.

Explaining why a consumer would choose to purchase an organic product in preference to one that is not. This portion of the project aims to expand the reader's understanding on how choosing organic is not only beneficial to their body but also how picking organic is a choice for sustainability specifically in relation to waste: reducing, re-using and recycling.

Focus questions:

- Why choose organic? Is it worth the perceived price difference? Hint: Use the 4 Principles of Organic Agriculture to explain.
- What is an eating pyramid, what is it used for and how do you use it?
- What is a waste cycle? What is an individual's contribution to this cycle? How do organic practices help to mitigate contributions to this cycle. Explain the most common types of waste disposal in Australia. Hint: Focus on the three most recognised waste bins, red lid, green lid and yellow lid.
- How does organic farming contribute to sustainability within Australia? Hint: Research renewable vs non-renewable resources.

Overview

When buying an organic product the consumer is using their purchasing power to promote a less polluting agricultural system. Due to the rigorous criteria a product or produce must undergo to be certified as organic in Australia the consumer is assured that it is sustainably produced. The 4 Principles of Organic Agriculture are a useful representation of the holistic nature of organic farming. Used to highlight the commitment to sustainability that is at the core of this philosophy for farming.

A lifestyle rich in organic produce and products has been shown to decrease the number of chemicals an individual is exposed to. An eating pyramid is helpful in providing insight into how to make balanced food choices. It does this by outlining the amounts and types of foods we should consume for optimal health.

The benefits of choosing, where possible, an organic alternative are not only limited to the consumer but there are also benefits for the farm where the food was produced, workers who participated in the supply chain, animals and the environment.

Did you know?

Winter citrus is high in vitamin c which is important for our bodies to fight off infections like the common cold.

Summer stone fruits contain extra beta-carotenes and other carotenoids to assist in protecting us from the sun.

Unit 3: Get Growing

The final portion of this project is designed to be a practical guide for the reader.

Information about what soil is and why it is important, why planting and consuming seasonal produce is beneficial as well as the absolute basics of starting a productive organic vegetable garden are explained here.

Focus questions:

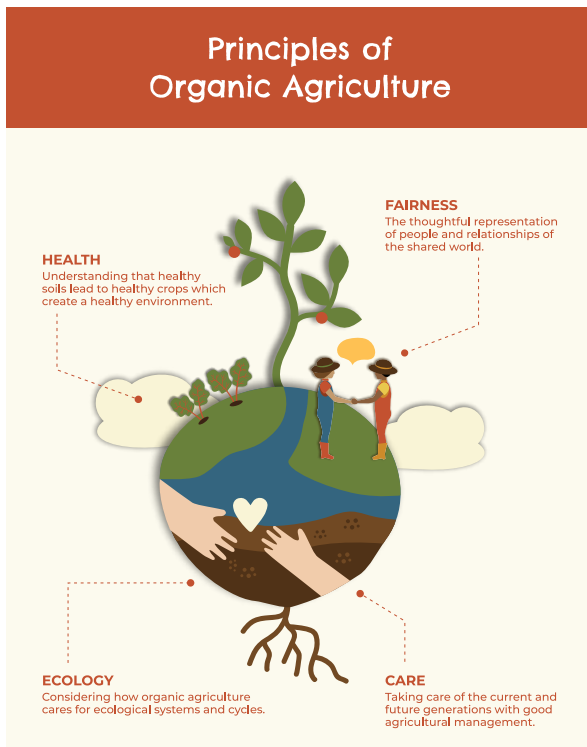
- All about soil. What is soil? Why is it important? How do you create and care for healthy soil? What do organic farms do to care for/improve their soil?
- Seasonal consumption. Why are foods grown in certain seasons? Hint: Think daylight hours, rainfall etc. What are the benefits to eating seasonally? Hint: Include health benefits and environmental benefits eg food miles.
- How do you start a productive organic vegetable garden? How do you choose the right location? How do you know what to plant when? Hint: A step-by-step guide may be helpful here.

Overview

People frequently underestimate just how much the season affects what food is available and how much more nutritious and delicious it is to eat seasonal produce. Produce that is in season is abundant which means it costs less to source and supply. Seasonal produce also helps to limit your chemical intake because food grown and eaten in season requires fewer chemicals, if any, to increase shelf life or to enable it to travel. Seasonal produce is harvested at its very best. Left to ripen and mature in the paddock, its flavour is greater and nutrient levels are at their height.

Eating in season also means that the body is receiving the nutrition it needs when it needs it. However, before you can have nutritious seasonal produce you must first have healthy soil. Soil is formed over many, many years. Time is the main factor in soil forming but living organisms, topography, climate and parent material (minerals and rocks) also contribute. Certain farming practices can cause both physical and chemical changes to the soil. Organic agricultural practices prioritise the preservation and improvement of farmed soils. It is a living thing, which requires care to thrive.

Fast Facts About the Australian Organic Industry



The principle goal of organic production is to develop enterprises that are sustainable and harmonious with the environment.

Organic production is a holistic system designed to optimise the productivity and fitness of diverse communities within the agro-ecosystem, including soil organisms, plants, livestock and people.

The Food and Agricultural Organization of the United Nations (FAO), 2020, explains that organic practices and processes benefit the environment in many ways:

- Producing food while establishing an ecological balance
- Increasing soil biodiversity
- Reducing nutrient losses
- Enhancing soil structure and water filtration reducing the risk of groundwater pollution
- Reducing non-renewable energy by decreasing agrochemical needs
- Contributes to mitigating the greenhouse effect and global warming by sequestering carbon in the soil.

Market Report 2021 Key Highlights



¹Source: Australian Organic Market Report 2021, ²Source: International Federation of Organic Agriculture Movements 2020

Principles of Organic Agriculture

HEALTH

Understanding that healthy soils lead to healthy crops which create a healthy environment.

FAIRNESS

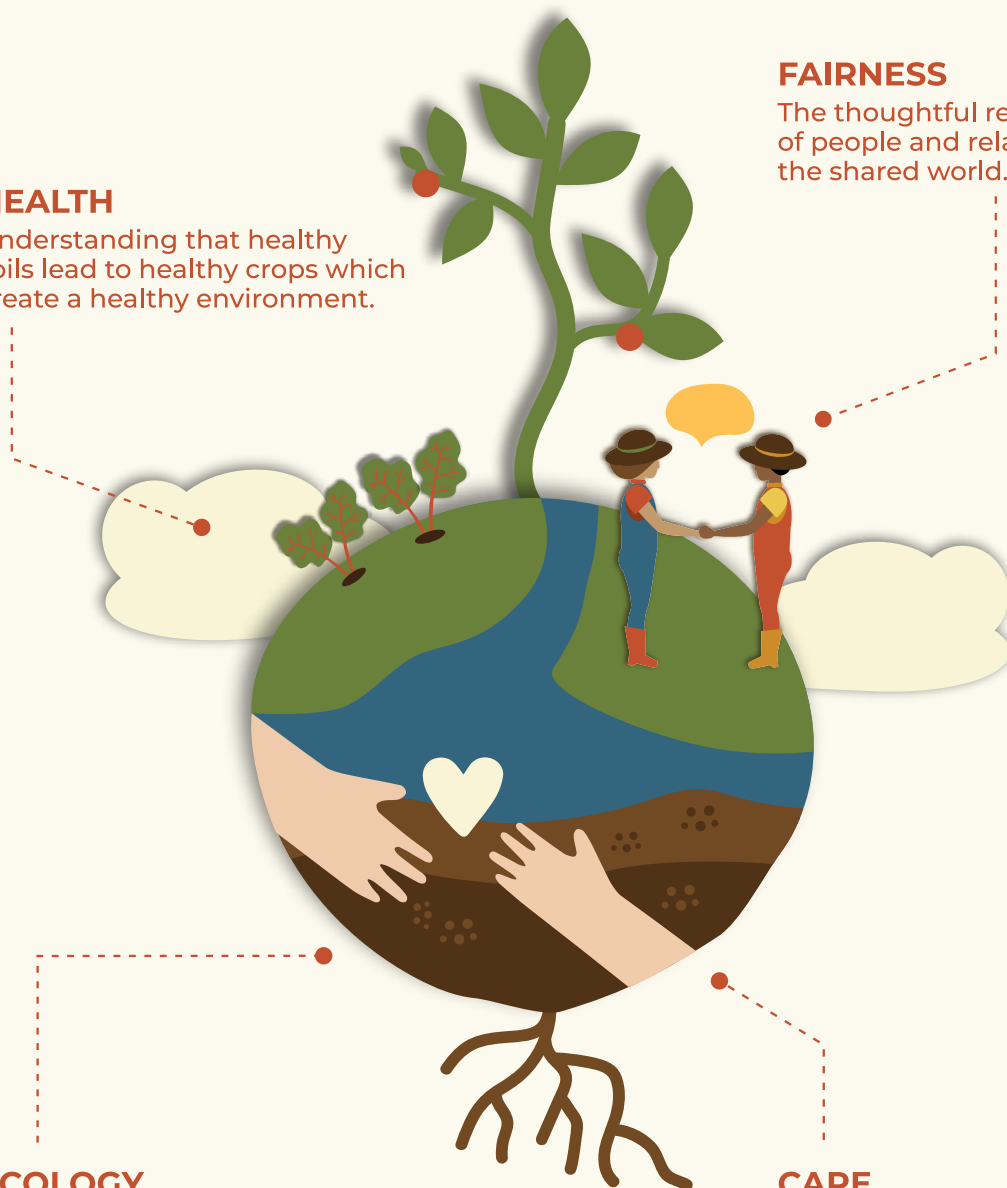
The thoughtful representation of people and relationships of the shared world.

ECOLOGY

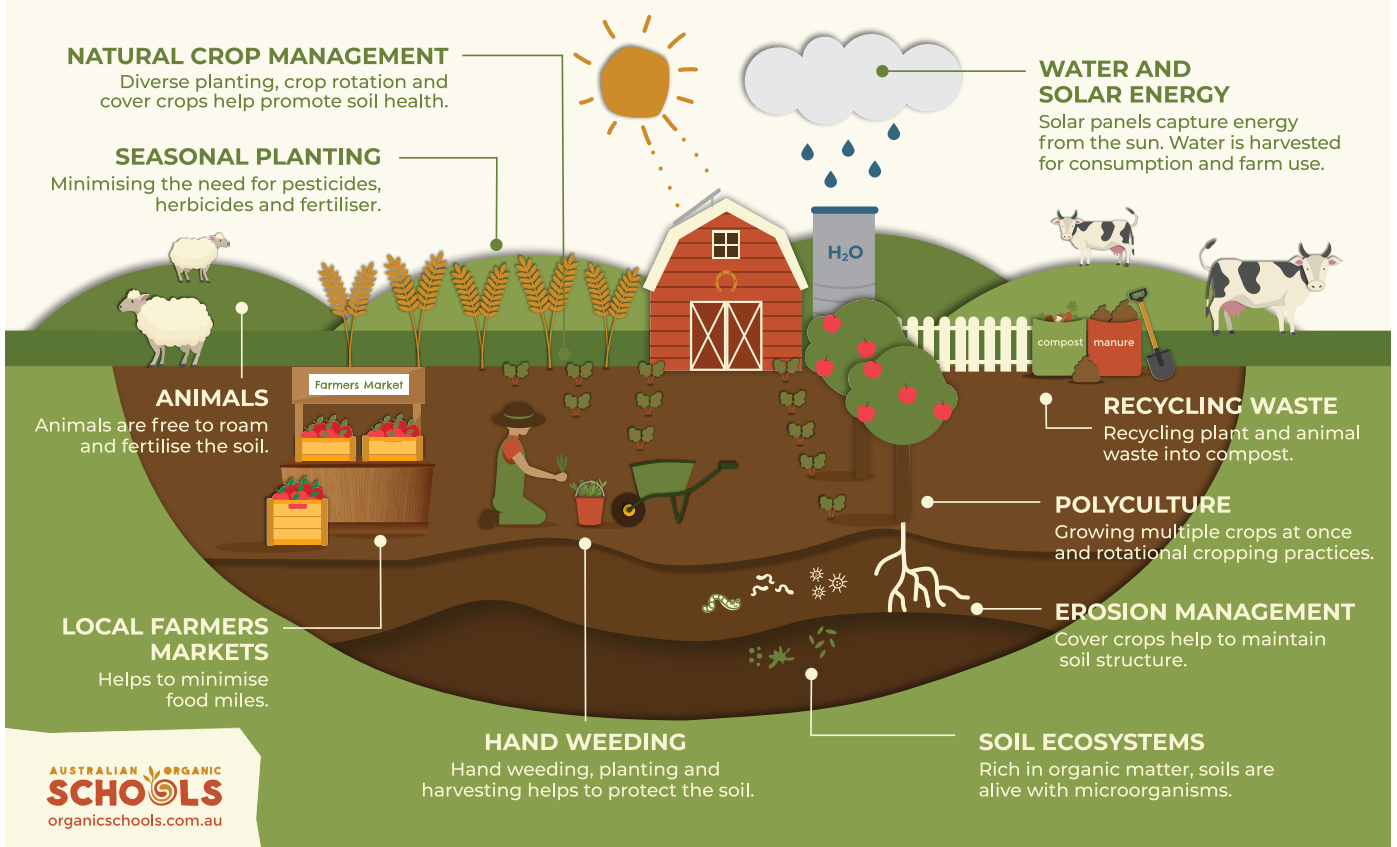
Considering how organic agriculture cares for ecological systems and cycles.

CARE

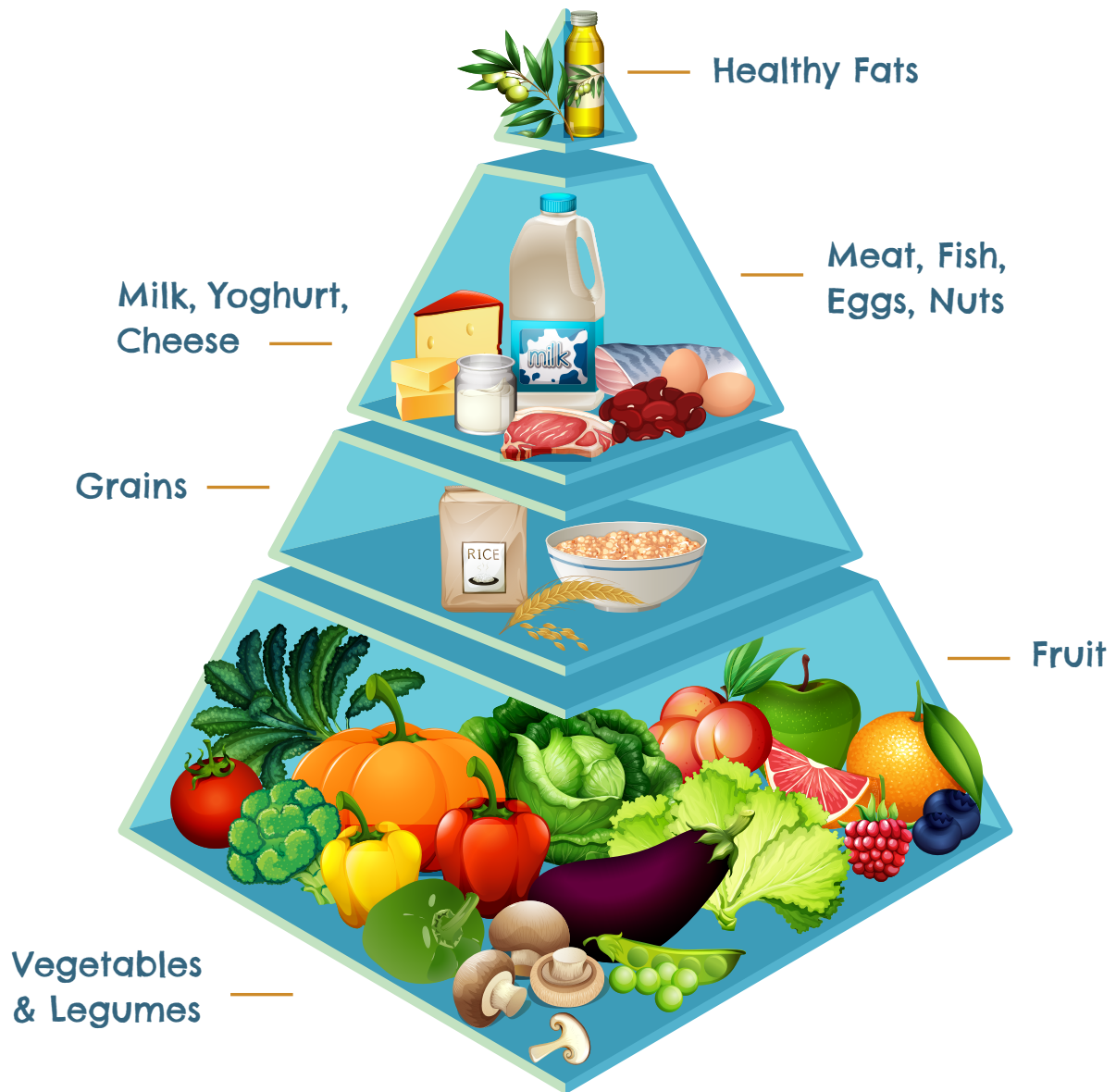
Taking care of the current and future generations with good agricultural management.



Organic Farming Strategies



Eating Pyramid



What's in Season?

When weather conditions are favourable, here are some of the common fruits and vegetables that are in season – YUM!




What's in Season?

| SUMMER | | | | |
|-----------|--------------|-------------------|----------------|--------------|
| Apricot | Mango | Rockmelon | Corn | Pumpkin |
| Avocado | Nectarine | Strawberry | Cucumber | Radish |
| Berries | Orange | Watermelon | Eschallot | Salad Sprout |
| Cherry | Passionfruit | Beetroot | Ginger | Spinach |
| Grapes | Paw Paw | Capsicum | Lettuce | Tomato |
| Kiwifruit | Peach | Carrot | Herbs | Tumeric |
| Lemon | Pineapple | Cherry Tomato | Leafy Brassica | Zucchini |
| Lime | Plum | Chinese Vegetable | Parsley | |

| SPRING | | | | |
|----------|------------|---------------|---------------|--------------|
| Apple | Orange | Cauliflower | Peas | Sweet Potato |
| Apricot | Paw Paw | Celery | Potato | Tomato |
| Honeydew | Tangelo | Cherry Tomato | Pumpkin | |
| Lemon | Watermelon | Chilli | Radish | |
| Mandarin | Asparagus | Corn | Rhubarb | |
| Mango | Beans | Leek | Salad Sprouts | |

| AUTUMN | | | | |
|------------|--------------|-------------------|----------------|--------------|
| Apples | Passionfruit | Capsicum | Ginger | Radish |
| Avocados | Pear | Carrot | Leafy Brassica | Silverbeet |
| Grapefruit | Plum | Celery | Leek | Spinach |
| Grapes | Artichokes | Chinese Vegetable | Onion | Sweet Potato |
| Lime | Beans | Corn | Parsley | Tomato |
| Nashi | Beetroot | Cucumber | Persimmon | Tumeric |
| Nectarine | Broccoli | Egg Plant | Potato | Zucchini |
| Orange | Cabbage | Eschallot | Pumpkin | |

| WINTER | | | | |
|----------|--------------|-------------------|------------|--------------|
| Apples | Passionfruit | Carrot | Leek | Sweet Potato |
| Avocados | Paw Paw | Cauliflower | Mushroom | Tomato |
| Banana | Pear | Celery | Parsley | Zucchini |
| Honeydew | Strawberry | Cherry Tomato | Potato | |
| Lime | Tangelo | Chinese Vegetable | Pumpkin | |
| Mandarin | Beans | Eggplant | Rhubarb | |
| Nashi | Beetroot | Garlic | Silverbeet | |
| Orange | Cabbage | Herbs | Squash | |




AUSTRALIAN ORGANIC
SCHOOLS

www.organicschools.com.au