

**CHCECE037**

**Support children to connect  
with the natural environment**

**Learner Guide**



**Updated to include  
National Quality  
Framework changes**



CHCECE037

# Support children to connect with the natural environment

Release 1

Learner Guide

Aspire Version 2.1



## CHCECE037 Support children to connect with the natural environment, Release 1

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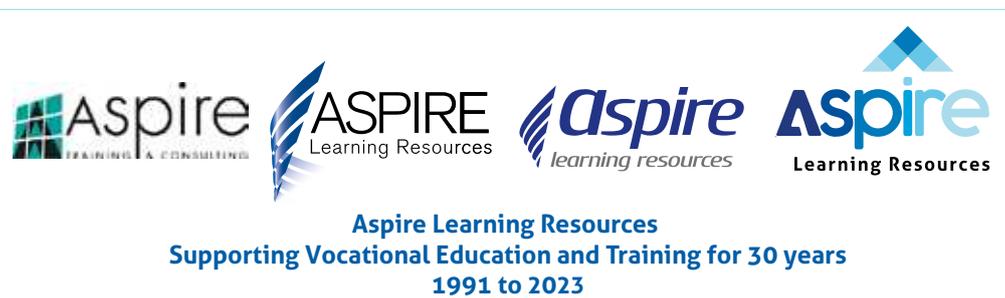
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## Before you begin

This Learner Guide is based on the unit of competency *CHCECE037 Support children to connect with the natural environment*, Release 1.

Your trainer or training organisation must give you information about this unit of competency as part of your training program. Information regarding how this Learner Guide relates to this unit of competency is detailed in our mapping guide.

## How to work through this Learner Guide

This Learner Guide contains a number of features that will assist you in your learning. Your trainer will advise which parts of the Learner Guide you need to read, and which Practice Tasks and Learning Checkpoints you need to complete.

Feature of the Learner Guide	How you can use each feature
Learning content	<ul style="list-style-type: none"> <li>➤ Read each topic in this Learner Guide. If you come across content that is confusing, make a note and discuss it with your trainer. Your trainer is in the best position to offer assistance. It is very important that you take on some of the responsibility for the learning you will undertake.</li> </ul>
Examples	<ul style="list-style-type: none"> <li>➤ These highlight learning points and provide realistic examples of workplace situations.</li> </ul>
Practice Tasks	<ul style="list-style-type: none"> <li>➤ Practice Tasks give you the opportunity to put your skills and knowledge into action. Your trainer will tell you which Practice Tasks to complete.</li> </ul>
Summaries	<ul style="list-style-type: none"> <li>➤ Key learning points are provided at the end of each topic.</li> </ul>
Learning Checkpoints	<ul style="list-style-type: none"> <li>➤ There are Learning Checkpoints at the end of each topic. Your trainer will tell you which activities to complete. These activities give you an opportunity to check your progress and apply the skills and knowledge you have learnt.</li> </ul>

This table maps each topic in this Learner Guide to the National Quality Standard and national learning framework: Early Years Learning Framework (EYLF).

T = Topic

<b>Topics</b>	<b>National Quality Standard (NQS)</b>
T1-T2	Quality Area 1: Educational program and practice
	Quality Area 2: Children's health and safety
T1-T2	Quality Area 3: Physical environment
	Quality Area 4: Staffing arrangements
T1	Quality Area 5: Relationships with children
	Quality Area 6: Collaborative partnerships with families and communities
	Quality Area 7: Governance and leadership
	<b>Early Years Learning Framework</b>
	<b>Principles</b>
	Secure, respectful and reciprocal relationships
	Partnerships
	Respect for diversity
	Aboriginal and Torres Strait Islander perspectives
T1-T2	Equity, inclusion and high expectations
T1-T2	Sustainability
	Critical reflection and ongoing professional learning
	Collaborative leadership and teamwork
	<b>Practice</b>
T1-T2	Holistic, integrated and interconnected approaches
T1-T2	Responsiveness to children
T1-T2	Play-based learning and intentionality
T1-T2	Learning environments
	Cultural responsiveness
	Continuity of learning and transitions
T1-T2	Assessment and evaluation for learning, development and wellbeing
	<b>Learning Outcomes</b>
	1. Children have a strong sense of identity
T1-T2	2. Children are connected to and contribute to their world
	3. Children have a strong sense of wellbeing
	4. Children are confident and involved learners
	5. Children are effective communicators



## Topic 1

In this topic you will learn about:

- 1A** The natural environment
- 1B** Natural and recycled materials

# Interdependence and sustainability

*The future of the land, our health, plants and animals all lay in the knowledge children hold and the actions they take to care for the environment and maintain its health.*

The future of the land, our health, plants and animals all lay in the knowledge children hold and the actions they take to care for the environment and maintain its health.

In an education and care setting, the focus is on:

- the interdependence between people, plants, animals and the land
- topics that explore environmental issues appropriate to a young child's level
- the health and wellbeing of children.

It is unusual for all materials used in a service to be natural, but by creating a balance between natural, man-made and recycled resources, you will notice a change in the feel of the space and how the children use and respond to it.

# 1A The natural environment

*The natural environment is full of wonders and joys that children can explore.*

Most children have a fascination with the environment and the things they find in it. They interact with nature and materials, and can be encouraged to appreciate their value and beauty. They are exposed to information and experiences that support:

- domains of development
- physical health
- mental health
- social and emotional learning.

When children are not exposed to outdoor play and interaction with a natural environment, they miss out on experiences, such as:

- risk-taking
- exploration
- understanding of how the world works and how it feels
- manipulation and experimentation of natural materials.

Children who miss out on outdoor play and interaction with a natural environment, are missing out on fresh air and exercise that uses all muscles and movement skills. These are experiences that support mental health and emotional wellbeing.



Most children are fascinated with the natural environment.

When children are given the choice to spend time outdoors, there is a lower incidence of challenging behaviour. You may also notice that children will choose to be outdoors much of the time, despite the weather or temperature.

As an educator, you must take care of the health and wellbeing of children. This is often interpreted as keeping them warm and safe in the indoor environment and protecting them from possible outdoor risks and hazards. However, you take care of the health and wellbeing of children by allowing them time in environments that make them curious, happy and active. These are often natural outdoor environments.

In a world where mental health issues are on the increase and blocks of land are smaller, you must think about how your ability to involve children in the natural environment might make a difference to their long-term health and wellbeing. These responsibilities might extend to needs such as:

- Providing access to landscapes and environments that are generally not available to children outside of the service. This might be through the spaces available at the service or through exploring outside environments during excursions.
- Allowing children to care for and support the lives of plants, animals and insects, including learning about what they need to be healthy and how they contribute to the environment.

## Learning about the environment

*There are a number of ways to involve children in learning about the environment, and many topics to investigate.*

The best opportunities to discuss the environment come when children ask or talk about the environment. This may be:

- in a group
- in the natural environment
- during routines
- when interacting with nature, the environment and animals.

When a child expresses an interest in a topic, take the opportunity to make it a teachable moment. Some topics are simple and will only be discussed for a few moments, while others may evolve into large-scale projects.

There are many ways to encourage children to enjoy and learn about the environment.

### Providing opportunities for children to learn about the environment:

- Use the outdoor environment often.
- Encourage children to enjoy different weather conditions, including the sun, clouds, rain and wind.
- Include natural elements in the environment, such as plants, trees, edible gardens, sand, rocks, mud and water.
- Encourage children to touch, feel, look and smell.
- Investigate Aboriginal and/or Torres Strait Islander peoples' relationships with Country
- Have picnics.
- Plant seeds, watch how they grow and learn about what they need.
- Visit the zoo, museum or aquarium.
- Plan incursions with mobile farms and animal visits.
- Use reference books, online searches, pictures and posters, and the knowledge of parents, educators and others in the community.
- Use stories, songs, movement and poetry.
- Discuss different kinds of animals, such as pets, farm animals, zoo animals, animals that fly, animals that live in the sea, animals that come from different parts of the world or animals that are extinct.
- Include concepts in routine activities.
- Work out how things are made or constructed.

The Early Years Learning Framework (EYLF) includes the Principle: Sustainability. This principle identifies that educators will promote activities that support children to understand the balance between humanity and the planet, and offer opportunities for children to become active participants in the maintenance of sustainable communities.

## Ecosystems

*At the foundation of environmental education is an understanding of ecosystems.*

Ecosystems are about the interdependence of people, plants, animals and the land. Interdependence means that each part needs the other if it is to remain healthy.

### Here are a few things to know about ecosystems:

- Ecosystems are made up of soil, atmosphere, heat, light, water and living things.
- Everything in the natural world is connected – if one part suffers, this impacts other parts.
- The healthier an ecosystem, the less easily it can be damaged.
- Each part of an ecosystem has a crucial role to play:
  - Soil provides nutrients for plants, and holds water for plants and animals.
  - The atmosphere provides air to breathe for plants, animals and people. Without the atmosphere we would have no life at all.
  - The sun heats up water, causing it to evaporate. This sends it into the atmosphere to make rain. The sun also provides warmth.
  - Water makes up a large part of the cells of living things, including people, and is necessary for keeping animals and plants alive.
- Biodiversity refers to the variety of living things. Living things contribute to the ecosystem as they provide food for other living things; for example, plants are food for both animals and people.

## Resources

*Use resources to discuss or demonstrate a concept related to the environment, or to gain ideas for future presentations.*

There are many resources, including videos and activity sites that explain natural environment topics, such as ecosystems or the water cycle. Some are created for children in a fun and simple manner and include cartoons and short movies. You will also be able to find numerous posters and books.

Many of these resources are simple enough to help you understand the concept and pass this information on.

You will find examples relating to natural environments at:

- local government departments
- government parks and wildlife departments in each state
- Aboriginal and/or Torres Strait Islander peoples' community supports: [aspirelr.link/indigenous-services](http://aspirelr.link/indigenous-services)
- Planet Ark: [aspirelr.link/planet-ark](http://aspirelr.link/planet-ark)
- Sustainability Victoria: [aspirelr.link/sustainability-victoria](http://aspirelr.link/sustainability-victoria)
- Environment and Heritage – NSW Government: [aspirelr.link/nsw-environment-and-heritage](http://aspirelr.link/nsw-environment-and-heritage)
- Ollie's World: [aspirelr.link/ollies-world](http://aspirelr.link/ollies-world)

## Suitable topics

*The environment, and how it interacts with our senses, provides many suitable discussions.*

These might occur during routines or experiences, or spontaneously throughout the day. For example, you might talk about:

- how something feels, smells, tastes (if safe), looks and sounds
- how we breathe air
- how we drink water
- how the sun keeps us warm
- what things are called using the correct terms; for example, fauna (animals in an area) and flora (plants in an area).

As children develop and understand more about the environment, they will begin to ask more complex questions. Their discussions may extend into larger projects that span hours, days or weeks.

The following table includes some examples of concepts that lead to discussion topics, which may turn into projects.

Concepts	Discussion topics	Projects
<b>Everyday interactions with the environment</b>	<ul style="list-style-type: none"> <li>➤ Where foods come from</li> <li>➤ Where the toilet flush goes</li> <li>➤ How we get water from a tap</li> <li>➤ Where you live</li> <li>➤ What pets need to live</li> <li>➤ What creatures in the environment are called</li> <li>➤ Why we are all different</li> </ul>	<ul style="list-style-type: none"> <li>➤ Go on an excursion to a farm</li> <li>➤ Learn about food chains</li> <li>➤ Find out about different types of houses across the world and what they are made from</li> <li>➤ Adopt a pet and care for it</li> <li>➤ Explore the lifecycle of a butterfly</li> <li>➤ Develop a family tree</li> </ul>
<b>Exploring natural materials</b>	<ul style="list-style-type: none"> <li>➤ Shape of the materials</li> <li>➤ Where they came from</li> <li>➤ What they are naturally used for</li> <li>➤ What they can be used for now</li> <li>➤ Why it is important to leave materials in the environment</li> <li>➤ Which animals might use them and what they use them for</li> </ul>	<ul style="list-style-type: none"> <li>➤ Hunt, gather and search for natural materials</li> <li>➤ Create a log of the things you find</li> <li>➤ Draw or photograph them</li> <li>➤ Name them or find out their names</li> <li>➤ Encourage children to look, find out and inspect materials using a magnifying glass</li> </ul>

Concepts	Discussion topics	Projects
<b>Taking care of plants</b>	<ul style="list-style-type: none"> <li>➤ How to care for them</li> <li>➤ What they need to grow</li> <li>➤ Where they live (in shade or sun)</li> <li>➤ What they need from people</li> <li>➤ How we can keep them safe</li> <li>➤ How we can help them grow strong</li> <li>➤ How they provide oxygen</li> <li>➤ Which plants are native to the area and which are introduced</li> </ul>	<ul style="list-style-type: none"> <li>➤ Grow a garden, veggie or herb patch</li> <li>➤ Create a lifecycle of plants in your garden</li> <li>➤ Develop a list of plants and their proper names</li> <li>➤ Take photos of plants and develop an album</li> </ul>
<b>Ecosystems and interdependence</b>	<ul style="list-style-type: none"> <li>➤ How each component has a part to play</li> <li>➤ What happens in the desert</li> <li>➤ What happens on islands</li> <li>➤ What happens around lakes and rivers</li> </ul>	<ul style="list-style-type: none"> <li>➤ Look at how each living thing is linked to another; for example, if we get rid of the bees, they won't pollinate the flowers, and then the flowers won't make fruit and vegetables, and we won't have food to eat</li> <li>➤ Find out how ants live by establishing an ant farm</li> </ul>
<b>Aboriginal and/or Torres Strait Islander peoples' connection with and use of the natural environment</b>	<ul style="list-style-type: none"> <li>➤ What are native bush foods?</li> <li>➤ What are medicinal plants?</li> <li>➤ How do Dreaming stories explain the environment?</li> <li>➤ How was the land we live on used by Indigenous Australians?</li> <li>➤ What can Indigenous Australians help us to be more sustainable?</li> <li>➤ Who is Mother Earth?</li> </ul>	<ul style="list-style-type: none"> <li>➤ Indigenous food growing</li> <li>➤ Creating an Indigenous garden</li> <li>➤ Developing and participating in a Bush Kinder program</li> <li>➤ Initiating an ongoing relationship with an Elder who might share environmental connections, stories and sustainable concepts</li> </ul>
<b>Constructed environments</b>	<ul style="list-style-type: none"> <li>➤ How was the construction made?</li> <li>➤ What was the construction made from?</li> <li>➤ Why does the construction stay together?</li> <li>➤ How safe is the construction?</li> <li>➤ How could the construction be made using natural or recycled materials?</li> </ul>	<ul style="list-style-type: none"> <li>➤ Replicating a structure</li> <li>➤ Researching and finding out more about a structure or how it was constructed</li> <li>➤ Drawing a structure or group of structures</li> <li>➤ Designing and/or building a structure or series of structures</li> </ul>

Delay discussing topics relating to major environmental destruction until the child has developed a real sense of what the environment is and can understand difficult concepts. If you introduce information about ozone holes and climate change too early, you may confuse the child with abstract concepts and create fear of things that are out of the child's control.

**Example****Discussing the ecosystem**

Korban, the educator, plans to talk about the ecosystem to a group of three- and four-year-olds. He will use examples of how Indigenous Australians have always cared for the ecosystem and respected its balance as part of their day-to-day lives.

Korban decides to use the Dreaming story *Spinifex Pigeon* as told by Janet Nagamarra to introduce discussion about how the bird carries seeds from one place to another.

He will follow up by including dance, as discussed in the story, then planting seeds.



## Respecting environments

*Valuable teaching will come from consistent modelling of respect, care and appreciation for the environment, whether it is natural or constructed.*

When you use modelling as well as asking children to help or take responsibility for caring for the environment, they will develop an understanding of the impact they can have.

**The environment can be respected, cared for and appreciated by:**

- putting rubbish in a rubbish bin or a recycling bin
- caring for animals and other creatures; for example, you might remove snails from your veggie garden and place them in another part of the yard
- watering the garden
- showing interest in the environment by noticing things and pointing them out to others
- listening to the sound of trees in the wind
- watching clouds and talking about their shapes
- commenting on the weather
- caring for trees, the grass and gardens.

Respecting environments involves caring for the natural aspects and sharing their wonders. This is reflected in terms we use to describe an ecosystem, such as 'Mother Nature' or 'Mother Earth'.

By talking about an ecosystem and its connections, you can help children understand the importance of each part of the natural world. By teaching children about ecosystems, you can model and discuss the importance of observing nature and interacting with it in a way that ensures its balance is not damaged.



## Practice Task 1

1. An educator is outside with a small group of children when they notice one of the indoor plants is going brown and looking unhealthy. Draw a line to match the educator's comments on the left to the type of learning being provided on the right.

- |   |  |
|---|--|
| * 'Let's read about plants in this book and see what might be wrong.'   | * Encouraging interest in the natural environment and ecosystems |
| * 'I can put some water in the dish and move the plant into the sunshine. That should help the plant to feel better.' | * Modelling respect, care and appreciation for the environment   |
| * 'What do plants need to make them green and healthy?'   | * Providing information through resources                        |

2. Which of the following are examples of how you might model respect, care and appreciation for the environment? Select all that apply.

- Watering the plants
- Killing the caterpillars that are eating the leaves
- Breaking cobwebs up in the trees
- Picking up litter in the yard and putting it in the bin
- Watching the birds in the trees

3. Which of the following statements are correct about natural environments? Select yes or no for each one.

- |   |       |      |
|---|-------|------|
| a. Educators can use the physical landscape and experiences to support children's social and emotional wellbeing.   | * Yes | * No |
| b. If children have early experiences in natural environments, this supports their social and emotional learning.   | * Yes | * No |
| c. If children miss out on experiences in outdoor spaces, they will not develop appropriate physical skills.  | * Yes | * No |
| d. Aboriginal and/or Torres Strait Islander peoples have a strong connection to land. The stories and examples of land care can be passed on to all children. | * Yes | * No |

# 1B Natural and recycled materials

*A learning environment that respects the environment should reflect nature as much as possible.*

It should include items from nature such as pinecones, leaves, pebbles and logs, and equipment made from natural materials such as hessian, timber and cane. The environment should be coloured with the tones of wood, leaves, grass, plants and sand. It should be pleasing and relaxing to the eye and calming to the mind.



Aim to have an environment that reflects the natural world.

While you may struggle to eliminate constructed environments and materials from the service altogether, you can use natural materials to adapt and reconstruct part of the environment.

## Natural materials

*Many different types of natural and recycled materials can be used in a variety of open-ended ways, both indoors and outdoors.*

### You can source natural materials from:

- > the garden
- > treasure hunts
- > an excursion
- > a child's collection
- > a garden centre
- > craft stores
- > art supplies.

Incorporate these materials into your plan of activities. The following table includes some examples.

Experiences	Natural materials
Art	<ul style="list-style-type: none"> <li>&gt; Charcoal</li> <li>&gt; Sticks in wet sand</li> <li>&gt; Wool (for weaving)</li> <li>&gt; Leaves (for printing)</li> <li>&gt; Feathers (for painting)</li> </ul>
Sensory play	<ul style="list-style-type: none"> <li>&gt; Sand</li> <li>&gt; Water</li> <li>&gt; Mud</li> <li>&gt; Pebbles</li> </ul>

Experiences	Natural materials
Sorting activities	<ul style="list-style-type: none"> <li>➤ Seed pods</li> <li>➤ Leaves</li> <li>➤ Pebbles</li> <li>➤ Gumnuts</li> <li>➤ Shells</li> </ul>
Science	<ul style="list-style-type: none"> <li>➤ Feathers and leaves (for floating)</li> <li>➤ Pebbles and shells (for sinking)</li> <li>➤ Seeds and bulbs (for growing)</li> <li>➤ Garden creatures, such as slaters, worms and caterpillars (for anatomy and/or lifecycles)</li> <li>➤ Plants, seeds and plant parts</li> <li>➤ Flowers, leaves and eggs (for differences)</li> </ul>
Maths	<ul style="list-style-type: none"> <li>➤ Pebbles, garden creatures, stepping-stones or steps made from timber (for size and sequence)</li> <li>➤ Shells, seed pods, vegetables, eggs, petals or clover leaves (for counting)</li> </ul>
Music	<ul style="list-style-type: none"> <li>➤ Pinecones and coconut shells</li> <li>➤ Sticks</li> <li>➤ Stones</li> </ul>
Dramatic play	<ul style="list-style-type: none"> <li>➤ Scenes that include branches, shells, logs, rocks, etc.</li> </ul>

## Recycled materials

*Recycled materials offer open-ended opportunities for children when incorporated into daily plans or experiences.*

Recycled materials can be sourced from:

- parents
- the service office
- a nearby factory or office
- second-hand stores.

The following table includes some examples of how recycled materials can be used in the service.

Recycled materials	Possible uses
Old pots and pans	<ul style="list-style-type: none"> <li>➤ Home play</li> <li>➤ Sand play</li> <li>➤ Growing plants</li> <li>➤ Watering plants</li> <li>➤ Storing or displaying materials</li> </ul>
Wooden trays, bowls, dishes and cutting boards	<ul style="list-style-type: none"> <li>➤ Home play</li> <li>➤ Storing or displaying materials</li> <li>➤ Sorting games</li> </ul>

Recycled materials	Possible uses
Glass jars and bottles	<ul style="list-style-type: none"> <li>➤ Storage</li> <li>➤ Paint, glue or water jars</li> <li>➤ Growing plants</li> <li>➤ Watering plants</li> <li>➤ Decorating</li> </ul>
Nuts, bolts, nails and screws	<ul style="list-style-type: none"> <li>➤ Sorting</li> <li>➤ Matching</li> <li>➤ Sequencing (from large to small)</li> <li>➤ Woodwork</li> </ul>
Tyres	<ul style="list-style-type: none"> <li>➤ Stepping-stones</li> <li>➤ Edging</li> <li>➤ Planters</li> <li>➤ Borders</li> <li>➤ Sand play</li> </ul>
Miscellaneous items, such as bottle tops, paper towel rolls, egg cartons, used or shredded paper, wood scraps, food packaging, corks, buttons, fabric, wool, old cards, yoghurt containers or pipes	<ul style="list-style-type: none"> <li>➤ Matching</li> <li>➤ Collage</li> <li>➤ Dramatic play</li> <li>➤ Construction</li> <li>➤ Floating/sinking</li> <li>➤ Counting</li> <li>➤ Sorting</li> <li>➤ Sewing</li> <li>➤ Weaving</li> <li>➤ Home-made musical instruments</li> <li>➤ Sand play</li> <li>➤ An 'invention centre' or 'creation station'</li> </ul>

## Presenting materials

*When you present materials and resources to children, think about the message being sent.*

You want children to feel safe, involved, comfortable and intrigued by the setup. An uncluttered, simple display without distractions allows children to focus on learning.

Natural materials allow you to easily set up a space that sends out this message and reflects positivity and calmness. When you couple these natural elements with recycled objects, the play space becomes a more interesting and enjoyable place. This means that children are better able to focus and use the environment for exploration and open-ended experimentation.

### Example

#### Natural and recycled materials

Hulya, the educator, could see that the plastic blocks were limited in their use and lacked the natural and sensory feel she was aiming to achieve. She changes the space to include the wooden blocks that were usually outdoors. She decides to extend on this play by collecting pots and buckets that were donated by parents and the local nursery. These recycled materials encourage the children to use their imagination for building projects, role-plays, communication and maths concepts.



## Moving to natural materials

*If your environment contains a lot of equipment created from man-made materials, you may need to change slowly or adapt these materials to incorporate natural elements.*

However, there is an expectation that you provide children with experiences in a natural environment. This is outlined in a range of sources, including the following.

Source	Expectation
<b>Education and Care Services National Regulations</b> <b>Regulation 113: Outdoor space—natural environment</b>	<ul style="list-style-type: none"> <li>➤ The outdoor spaces provided at the education and care service allow children to explore and experience the natural environment.</li> </ul> <p>For example, use natural features such as trees, sand and natural vegetation.</p>
<b>National Quality Standard (NQS)</b> <b>Element 3.2.1 – Outdoor and indoor spaces are organised and adapted to support every child’s participation and to engage every child in quality experiences in both built and natural environments</b>	<ul style="list-style-type: none"> <li>➤ Encouraging the use of natural materials in all learning environments</li> <li>➤ Exploring relationships with living things, and observing, noticing and responding to change</li> <li>➤ Encouraging children to use their senses to explore natural and built environments</li> <li>➤ Accessing areas with natural features, such as plants, trees, edible gardens, sand, rocks, mud and water</li> </ul>
<b>Service policies and procedures</b>	<ul style="list-style-type: none"> <li>➤ Child safe environment policy</li> <li>➤ Educational program policy</li> <li>➤ Environmental sustainability policy</li> <li>➤ Relationships with children policy</li> </ul>

You could start to adapt your environment from 'processed' to natural materials by changing just one or two items at a time. You could look for these items in a second-hand shop or ask parents if they have anything suitable they are able to donate.

Some items you could easily introduce include cane baskets, woven placemats or wicker plate holders. You could use these objects to display and store materials such as pencils, felt pens or construction blocks while the children are using them. You might also create barriers and borders using rocks, pebbles, logs or rows of pot plants.

Try to replace damaged man-made items with recycled or natural options. For example, when plastic chairs crack, replace them with wooden chairs. You may also find that parents are willing to purchase your old items. This will give you a start toward purchasing new and long-lasting natural options.

Many books and websites provide ideas for setting up and using natural materials. There are many useful resources available to support early childhood educators to embed sustainable practices, including the Early Childhood Australia website ([aspirelr.link/early-childhood-australia](http://aspirelr.link/early-childhood-australia)).

### Example

#### Using the garden

Rhylee, an educator, looks around the yard and feels a sense of achievement. The year has been successful and the yard looks so relaxing and colourful. The children, educators, parents and community have helped to create this space and now it is enjoyed.

The sandpit area has been lined with rocks by parents on a working bee, and plants are now showing bright yellow and orange flowers. They are nasturtiums (edible plants) that the children planted. Although the children didn't enjoy their taste, sometimes babies would grab a handful of bright flowers and explore them with their mouths.

Along the fence is a neat line of shopping trolley baskets. Donated by the local supermarket, these damaged trolleys had their wheels taken off and they sat low and stable on their baskets, allowing the children to store their digging tools.

In the vegetable garden an educator is talking to some children about how to tell if the cherry tomatoes are ripe. Aubrey, a two-year-old, had picked a green tomato and learned quickly they taste better when they are a glowing red colour. Aubrey smiles and points at a ripe red tomato, saying 'Red, red' before plucking it and taking a bite.



## Practice Task 2

1. Which of the following statements relate to the positive use of natural and recycled materials? Select all that apply.

- Respect for both the natural and constructed environment is reflected in a learning space that includes natural materials as much as possible.
- When natural materials are used for barriers and borders, they become a tripping hazards and may cause unintentional injury. This would breach your duty of care.
- If your indoor and outdoor environments are man-made and have few natural and recycled materials, you should report your service as it is not meeting the expectations of the regulations and needs to gain funding to update to more pleasant surroundings.
- Children should be provided with a wide variety of natural and recycled materials. This allows them to explore and creates a calm and interesting place where they can use the environment for open-ended experimentation.
- It is not practical to use natural materials in outdoor play. They can be damaged easily and educators may have difficulty showing children how to respect the materials if this happens.
- Recycled materials can be sourced from a variety of places. They can easily be incorporated into a variety of daily planned experiences.

2. Describe two ways children might use leaves in their learning experiences.

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## Summary

- The foundation of environmental education is understanding ecosystems, which is about the interdependence between people, plants, animals and the environment.
- It is important to talk about the environment with children and encourage an appreciation of its value and beauty.
- It is essential to model respect, care and appreciation for both natural and constructed environments.
- By providing natural and recycled materials, you are offering open-ended experiences and creating attractive environments.
- Children's long-term mental and physical health can be affected if they lack access to natural environments.
- By creating a balance between natural, man-made and recycled resources in the play area, you will notice a change in the feel of the environment and how the children use and respond to it.
- When presenting any materials and resources, ensure children feel safe, involved, comfortable and intrigued by the setup.
- Important subjects that develop ongoing life skills for children are growing and preparing food, waste reduction and recycling.

# Learning Checkpoint 1

## Interdependence and sustainability

### Part A



1. List two natural materials that can be found in the image above.

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2. List two recycled materials that can be found in the image of a constructed environment above.

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3. Which of the following statements are correct about the natural environment? Select yes or no for each one.

- a. When children miss out on outdoor play, this impacts their development, including their mental health and emotional wellbeing. \* Yes \* No
- b. To provide opportunities for children to learn about the environment, you may have a picnic or go to a zoo, museum or farm. \* Yes \* No
- c. Children have little impact on the environment, so do not need to know about environmental harm. \* Yes \* No
- d. Keeping children warm and safe inside is the best way educators can take care of the health and wellbeing of children. \* Yes \* No
- e. The natural environment can be respected, cared for and appreciated by putting rubbish in the bin and watering the garden. When children interact with the natural environment, they learn about the ecosystem. \* Yes \* No

4. Identify which NQS element relates most closely to the expectation that all children are provided with experiences in a natural environment.

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5. Which of the following service policies guide an educator’s actions toward supporting children to connect to the natural environment? Select all that apply.

- Relationships with children policy
- Child safe environment policy
- Educational program policy
- Medication policy
- Family communication policy

6. Which experiences could you provide to extend children’s knowledge of how Aboriginal and Torres Strait Islander peoples’ engage with the local environment? Select all that apply.

- Arrange for the children to attend a Bush Kinder program.
- Invite an Elder to help design an Indigenous garden.
- Support the children to write a letter to an Elder to ask about the local flora and fauna.
- Research to find plants indigenous to the area.

## Part B

Read the case study, then answer the questions that follow.

### Case study

Lucy is an educator who is supervising the children outdoors. She notices three children who are looking at a nest in a tree. A bird seems to be feeding some hungry chicks.

1. Identify two discussions Lucy could initiate to support the children’s knowledge and understanding of the natural environment.

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2. Which of the following are useful ways for Lucy to discuss interdependence with the children? Select all that apply.

- Discussing different animals that live in trees and why
- Talking about where animals live and what they eat
- Discussing shapes and sizes of natural materials
- Discussing the damaging effects on animals and insects if we cut down trees

3. Which of the following might Lucy do to show respect, care and appreciation for the birds in the natural environment? Select all that apply.

- Bring the nest and chicks inside so the children can feed them and watch them grow.
- Provide bread for the birds as they need extra food for their chicks.
- Explain to the children that scaring the birds might mean they cannot feed the chicks.
- Watch where the birds go to get food for the chicks.





## Topic 2

In this topic you will learn about:

- 2A** Sustainable practices
- 2B** Growing and caring for living things

# Influencing the environment

*As you demonstrate more sustainable practices and behaviours, children will show more initiative and will develop life skills.*

You should encourage children to become involved in environmental activities so they can learn how to care for the ecosystem as well as their own spaces. Children may share what they learn with their families and those around them.

## 2A Sustainable practices

*Sustainable practices are the actions you take to enable the long-term survival of any system or product.*

It is about using things that you need now without damaging their availability in the future.

The Early Childhood Australia (ECA) Code of Ethics includes a commitment to action in relation to children. It asks educators to collaborate with children as global citizens in learning about our shared responsibility to the environment and to humanity.

The following are national education and care service guidelines that support educators to develop and implement sustainable practices.



There are many actions you can take to reduce your impact on the environment.

### Education and Care Services National Regulations

#### Regulation 113 – Natural environment

This regulation states that outdoor environments must allow children to explore and experience the natural environment. There should be access to the natural environment and natural vegetation.

Health and safety issues such as allergies should be considered.

### National Quality Standard (NQS)

#### Quality Area 3 Physical environment

##### Element 3.1.1 – Outdoor and indoor spaces, buildings, fixtures and fittings are suitable for their purpose, including supporting the access of every child

This element aims to achieve indoor and outdoor environments that are environmentally sustainable through their design and facilities.

#### Quality Area 3 Physical environment

##### Element 3.2.3 – The service cares for the environment and supports children to become environmentally responsible

This element aims to encourage educators to model sustainable practices, show appreciation for the natural environment and promote children’s understanding of their responsibility to care for the environment.

#### Quality Area 5 Relationships with children

This quality area aims to support educators to empower children and engage them with their environments. In doing so, they are providing for their need to belong, express themselves, collaborate with others and engage in new experiences.

### Approved learning frameworks

**Outcome 2 – Children are connected with and contribute to their world**

Sub-outcome: Children become socially responsible and show respect for the environment acknowledges that educators promote learning when they:

- provide natural materials
- model respect and care for the environment
- help children to learn about sustainability
- discuss ecosystems.

## Sustainability

*To practise sustainability, consider the cost of everything you do. This includes the cost of your actions on people, the planet, practices and processes.*

The following is an example of how these sustainability concepts may apply in your service.

Sustainability concept	Ways to incorporate into your service
Environmental sustainability	<ul style="list-style-type: none"> <li>➤ Reducing use of materials</li> <li>➤ Eliminating or reducing chemicals indoors and outdoors</li> <li>➤ Understanding the chemicals that are used and how they are used – all chemicals in the service must have a safety data sheet (SDS) that tells you about their dangers</li> <li>➤ Aiming to reduce, re-use and recycle</li> <li>➤ Maintaining equipment and resources to ensure their long-term viability</li> <li>➤ Reducing use of energy and water</li> </ul>
Workforce and social sustainability	<ul style="list-style-type: none"> <li>➤ Taking care of yourself and others to avoid burnout, stress and negative feelings</li> <li>➤ Adapting to change positively</li> <li>➤ Upholding rights</li> </ul>
Economic sustainability	<ul style="list-style-type: none"> <li>➤ Knowing the costs involved and budget available for running the service</li> <li>➤ Identifying the health and safety needs that the budget must cover</li> <li>➤ Analysing whether the service can maintain best practices over the long term with regard to:                             <ul style="list-style-type: none"> <li>– additional staff</li> <li>– higher ratios of children to educators</li> <li>– nutritional needs of children.</li> </ul> </li> </ul>

## Sustainable actions

*There are many types of sustainability actions that children can be involved in.*

The following table provides you with some ideas.

Activity	How to involve children
<b>Being involved in policy or philosophy development</b>	<ul style="list-style-type: none"> <li>➤ Ask children what they want their environment to look like.</li> <li>➤ Have children draw the things they like about the environment.</li> </ul>
<b>Helping to solve problems</b>	<ul style="list-style-type: none"> <li>➤ Identify simple options and get children to identify the positives and negatives of each.</li> <li>➤ When children notice issues, ask them for strategy ideas.</li> </ul>
<b>Researching for improvements and learning new ideas</b>	<ul style="list-style-type: none"> <li>➤ Use books, websites and newspapers.</li> <li>➤ Use online videos and cartoons aimed at children.</li> <li>➤ Play related games and puzzles.</li> <li>➤ Writing to, emailing or completing a search about the local Aboriginal and/or Torres Strait Islander community for ideas.</li> </ul>
<b>Taking ideas home</b>	<ul style="list-style-type: none"> <li>➤ Email or display information for families about what the children are learning.</li> <li>➤ Use learning stories to describe and share information.</li> <li>➤ Create stories that demonstrate how the environment has changed or been improved.</li> <li>➤ Work together to develop an environmental checklist to take home.</li> <li>➤ Involve children in writing a letter to a local hardware store to ask if they would discount sustainability resources if a number of families made a purchase (e.g. water tanks, compost or worm farms).</li> </ul>

There are a number of simple, clear videos available that explain sustainability at an adult or child level, such as at [aspirelr.link/ollies-world](https://aspirelr.link/ollies-world).

## Waste reduction and recycling

*The key to waste reduction and recycling are the three Rs: reduce, reuse and recycle.*

### Reduce

When you are working with children you can support their understanding of reducing materials by:

- discussing packaging
- identifying which products in the supermarket have the least packaging or create the least rubbish
- discussing why you should only take what you need and are going to use.

## Re-use

You can involve children in re-using materials and equipment by:

- repairing broken items if possible, or re-using them for a different purpose
- avoiding disposable items such as tissues, paper plates, foam cups and plastic cutlery, or re-using them as many times as possible before disposal
- deciding which types of packaging can be re-used
- decorating re-usable shopping bags
- calculating how many re-usable shopping bags are needed compared to plastic bags
- washing up and discussing how many items you are re-using
- choosing items to donate to a second-hand shop so someone else can enjoy them
- visiting a second-hand shop to look for items
- coming up with ideas for re-using items that cannot be recycled
- discussing how materials and resources might be used more efficiently, such as by having a re-use box where materials that have been used or partly used (such as paper) can be accessed.

## Recycle

Recycling is about turning waste into usable items. Sometimes this might mean recycling materials yourself through composting or using items in creative or useful ways. Other times this might mean collecting materials so they can be recycled through a recycling program, such as by placing them in recycling bins or taking them to a recycling station.

Recycle all waste that you can and choose items with recyclable packaging. If packaging cannot be re-used, recycle everything that you can.

Recycling is challenging for children as it relies on their ability to sort materials. This makes it a wonderful learning activity.

Some ways you can involve children in recycling include:

- choosing packaging made of recycled materials and/or material that can be recycled
- using cardboard in a worm farm, compost heap or as mulch on the garden
- using recycling bins usually provided by local government to homes, businesses and in public areas
- introducing the waste reduction cycle linked to composting and worm farms, which helps the garden and uses up food scraps and garden waste
- sorting packaging material into recyclable and non-recyclable containers
- working out the best place for each material to go (for example, rubbish bin, compost bin, worm farm or recycling bin)
- creating a recycling station
- discussing the different recycling symbols and what they mean
- researching how composting and worm farms work
- helping to care for the compost bin or worm farm
- learning how worms live and how to look after them.

Most local governments have recycling programs in place. Your service is likely to have both a waste bin and a recycling bin. Green bins (for plant-based materials) are also common and useful.

## Encouraging others

*As children share information about sustainability with their families and other people around them, it is likely to prompt others to become involved.*

You can also include other people from the community in your sustainability practices, especially people who have specialist knowledge.

Some ideas are outlined in the following table.

Activity	How to involve families and the community
<b>Being involved in policy or philosophy development</b>	<ul style="list-style-type: none"> <li>➤ Provide surveys to gather feedback.</li> <li>➤ Ask families to contribute to a mural that represents what they want the service to look like.</li> </ul>
<b>Helping to solve problems</b>	<ul style="list-style-type: none"> <li>➤ Ask for ideas as part of problem-solving.</li> <li>➤ Contact parents and community members who have specialist knowledge or who implement sustainable procedures at home.</li> </ul>
<b>Researching for improvements and learning new ideas</b>	<ul style="list-style-type: none"> <li>➤ Contact specialists.</li> <li>➤ Develop a resource library.</li> <li>➤ Organise gatherings and celebrations where you share information and support each other to become more sustainable.</li> <li>➤ Organise meetings or shared professional development sessions.</li> <li>➤ Provide online materials or activities.</li> <li>➤ Request donated materials.</li> </ul>
<b>Taking ideas home</b>	<ul style="list-style-type: none"> <li>➤ Ask for reflections on what families are implementing.</li> <li>➤ Get involved in recognised events such as:               <ul style="list-style-type: none"> <li>– National Tree Day</li> <li>– Clean Up Australia Day</li> <li>– World Oceans Day</li> <li>– Earth Hour</li> </ul> </li> <li>➤ Create and share an environmental audit for homes or workplaces.</li> <li>➤ Provide take-home resources such as books to read to children and games or puzzles that families can play together.</li> </ul>

**Example****Planning a sustainable activity**

Miranda is an educational leader. She wants to plan a sustainable activity for the service that will encourage children, educators and families to be involved.

She comes up with the following plan.

<b>Starting a compost heap</b>	
<b>Benefits</b>	<ul style="list-style-type: none"> <li>➤ Recycling and reducing waste</li> <li>➤ Creating mulch and fertiliser for the garden</li> <li>➤ Involving parents and children</li> <li>➤ Learning about ecosystems and biodiversity</li> </ul>
<b>Preparation</b>	<p>Educators will:</p> <ul style="list-style-type: none"> <li>➤ Work with children to identify the best position for the compost heap</li> <li>➤ help children create a poster about the things that can go into the compost</li> <li>➤ build or buy a compost container.</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>➤ Compost container</li> <li>➤ Child-sized shovels and rakes</li> </ul>
<b>Implementation</b>	<ul style="list-style-type: none"> <li>➤ Scraps to go into the compost</li> <li>➤ Children or educators to turn over the compost every few days</li> </ul>
<b>How to involve children</b>	<ul style="list-style-type: none"> <li>➤ Discuss biodiversity and ecosystems.</li> <li>➤ Research where a compost heap is best located.</li> <li>➤ Set up the compost heap.</li> <li>➤ Discuss what happens in the compost heap.</li> <li>➤ Discuss how to use the compost when it is ready.</li> <li>➤ Have children empty the scraps into the compost.</li> <li>➤ Ask children to bring scraps from home for the compost.</li> </ul>



## Practice Task 3

1. Draw a line to match each guideline that supports educators to develop and implement sustainable practices on the left to the correct description on the right.

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>* Education and Care Services National Regulations: Regulation 113 – Natural environment</li> </ul>  | <ul style="list-style-type: none"> <li>* Aims to support educators to empower children and engage them with their environments. In doing so, they are providing for their need to belong, express themselves, collaborate with others and engage in new experiences.</li> </ul> |
| <ul style="list-style-type: none"> <li>* National Quality Standard: Quality Area 5 – Respectful and equitable relationships are maintained with each child</li> </ul>   | <ul style="list-style-type: none"> <li>* Educators promote learning when they model respect and care for the environment, and help children to learn about sustainability.</li> </ul>   |
| <ul style="list-style-type: none"> <li>* National learning framework: Outcome 2 – Children are connected with and contribute to their world.</li> </ul>   | <ul style="list-style-type: none"> <li>* Aims to achieve indoor and outdoor environments that are environmentally sustainable through their design and facilities.</li> </ul>   |
| <ul style="list-style-type: none"> <li>* National Quality Standard: Element 3.2.3 – The service cares for the environment and supports children to become environmentally responsible</li> </ul>  | <ul style="list-style-type: none"> <li>* States that outdoor environments must allow children to explore and experience the natural environment.</li> </ul>   |
| <ul style="list-style-type: none"> <li>* National Quality Standard: Element 3.1.1 – Outdoor and indoor spaces, buildings, fixtures and fittings are suitable for their purpose, including supporting the access of every child</li> </ul> | <ul style="list-style-type: none"> <li>* Aims to encourage educators to model sustainable practices, show appreciation for the natural environment and promote children’s understanding of their responsibility to care for the environment.</li> </ul>                         |

2. Draw a line to match each stakeholder on the left with an activity to involve them in sustainable practices on the right.

- |  |  |
|--|--|
| * Educators                                | * Installing a rain gauge and recording the results, then following up with discussion about conserving water  |
| * Children                                 | * Asking for donations of recycled materials for the new garden and providing a brochure on recycling stations |
| * Families and community members or groups | * Linking actions to the NQF and providing support to develop appropriate activities for children              |

3. Which of the following statements relate to educational opportunities that help children reduce their impact on the environment? Select all that apply.

- Reducing waste and recycling water.
- Keeping off the grass so it can grow.
- Working out how leftover materials can be useful.
- Developing a worm farm.
- Providing food scraps to families that have chickens.

4. Draw a line to match each of the three Rs with an example of implementation.

- |           |   |
|-----------|---|
| * Reduce  | * Instead of purchasing single-use plastic bags, use bread bags or canvas bags.                   |
| * Re-use  | * Provide bins in each area to sort used items.   |
| * Recycle | * Instead of using individually wrapped cheese, purchase a block of cheese and slice it yourself. |

## 2B Growing and caring for living things

*Ongoing discussion and involvement in experiences that relate to the environment are important to the development of children's play and life skills.*

Children learn about how to care for themselves and others when they start to learn about the growth and care of other living things.

Gardens are pleasant to look at, smell, observe over time and care for. A garden area can be as small as a pot plant or window box or as large as the entire yard. They can be built with raised garden beds, dug into the existing space, and may be made from or bordered by recycled materials. You might grow:

- herbs
- vegetables
- fruit
- flowers that attract birds or bees and provide them with food
- ground cover, such as grass
- bushes, shrubs and trees.



Encourage children to help out in the garden to learn about how things grow.

### Concepts that children can learn about when growing plants include:

- lifecycles of plants, insects and other animals in the garden
- where foods come from, what they look like before we see them on our plates, and how to prepare them
- how to care for plants
- the role that bees play to pollinate flowers and create food
- how the garden ecosystems work
- roles and responsibilities, for example, who is in charge of watering and who should help with weeding
- counting, measuring and comparing seeds, vegetables and garden flowers
- sequencing; what comes first, second, third, etc.
- how long it takes for each plant to grow fruit
- which days of the week the garden should be fertilised
- horticulture, for example, the names of plant species, companion planting, landscaping, propagation or cultivation
- digging, pulling, raking and shovelling.

## Learning in the garden

*Most children love to get involved in the process of developing a garden.*

Not only do they have an opportunity to use tools and get their hands dirty, but they are indirectly learning mathematics, communication, social skills, physical abilities and a range of other life skills.

### Children can help in the garden by:

- planning the space
- collecting items they need on an excursion
- helping to write a letter to a supplier
- placing or planting the items
- shovelling, digging, raking and hoeing
- adding mulch to the garden
- watering the seeds, plants or trees
- staking plants
- removing insects and weeds
- harvesting fruits and vegetables
- helping to prepare or cook any produce grown.

Gardening has some safety issues educators need to be aware of.

### When children are in the garden, make sure they:

- follow sun-smart procedures by wearing a hat and sunscreen
- wear closed-toe shoes to protect their feet when digging and shovelling
- use tools that match their size and capabilities
- are supervised if using fertilisers, potting mix or tools with a sharp edge
- are safe near water
- pack up equipment when not in use – hoses and tools are hazards when left lying around
- only eat plants and crops when adults agree it is safe
- are aware that some insects are dangerous when handled (such as bees).

## Creating a garden

*You need to do some research and preparation before creating a garden.*

The steps in the following table will help to make your garden successful.

Step	Considerations	Useful information
1. Decide on a space	<ul style="list-style-type: none"> <li>➤ What spaces are available?</li> <li>➤ What space can you afford to use?</li> <li>➤ What are the characteristics of the space (e.g. does it have sunlight, will it be rained on)?</li> <li>➤ What kind of garden will it be (e.g. raised, potted, small, large, indoor, outdoor or in a glass house)?</li> </ul>	<ul style="list-style-type: none"> <li>➤ A vegetable garden will need:                             <ul style="list-style-type: none"> <li>– full sun most of the day</li> <li>– plenty of water</li> <li>– good soil.</li> </ul> </li> <li>➤ A vegetable bed may need soil brought in from a garden centre.</li> </ul>

Step	Considerations	Useful information
<b>2. Decide what to grow</b>	<ul style="list-style-type: none"> <li>➤ What will children eat or enjoy looking at?</li> <li>➤ What will grow in your climate?</li> <li>➤ What will grow in the space you have identified?</li> <li>➤ Which plants are dangerous if handled or eaten and should be avoided?</li> </ul>	<ul style="list-style-type: none"> <li>➤ Be aware of allergies to plants, leaves, perfumes and scents as well as foods.</li> <li>➤ Some plants are dangerous to eat and others are dangerous to touch.</li> </ul>
<b>3. Set up your garden bed</b>	<ul style="list-style-type: none"> <li>➤ Do plant beds need edging?</li> <li>➤ What type of soil needs to be brought in?</li> <li>➤ Who can help?</li> </ul>	<ul style="list-style-type: none"> <li>➤ Pots and small beds may need potting mix.</li> <li>➤ Larger beds may need a truck of composted soil.</li> <li>➤ Vegetables will be fussier about soil than native plants.</li> </ul>
<b>4. Plant</b>	<ul style="list-style-type: none"> <li>➤ Which plants will go where?</li> <li>➤ Which plants need more sun?</li> <li>➤ Which plants will grow taller than others?</li> <li>➤ How far apart will plants need to be?</li> <li>➤ Which plants need stakes to hold them up and support their growth?</li> </ul>	<ul style="list-style-type: none"> <li>➤ Taller plants should be placed where they do not shade smaller plants.</li> <li>➤ Some plants need ground space to grow (e.g. pumpkin and watermelon).</li> <li>➤ Some plants need space to grow up (e.g. corn and peas).</li> <li>➤ Companion plants can be attractive and have practical uses (for example, marigolds attract bugs that eat pests).</li> </ul>
<b>5. Mulch</b>	<ul style="list-style-type: none"> <li>➤ What type of mulch works best?</li> <li>➤ Where do you put the mulch?</li> <li>➤ How close to plants do you need to put mulch?</li> </ul>	<ul style="list-style-type: none"> <li>➤ Choose mulch that will stay in the garden. Some mulch types blow out on a windy day.</li> <li>➤ Some mulch materials burn plants if they are too close to their stems.</li> <li>➤ Check for allergies if you are considering pea-straw.</li> </ul>
<b>6. Care for and feed</b>	<ul style="list-style-type: none"> <li>➤ How much water do the plants need?</li> <li>➤ How often do you need to water them?</li> <li>➤ Which are weeds and which are plants?</li> <li>➤ Which insects are healthy for the plant and which are damaging?</li> <li>➤ What are the safest ways to remove insects that are damaging?</li> <li>➤ What will you fertilise vegetables with?</li> </ul>	<ul style="list-style-type: none"> <li>➤ Raised beds and pots dry out faster than garden beds.</li> <li>➤ When watering, make the soil wet to about 2cm deep.</li> <li>➤ Rain is preferred over watering.</li> <li>➤ Teach children to garden without pesticides. Remove the damaging insects to a new home, or investigate natural insect repellents.</li> <li>➤ Children can help use worm farm waste or compost to feed the vegetables.</li> </ul>

Step	Considerations	Useful information
7. Harvest	<ul style="list-style-type: none"> <li>➤ When are vegetables ripe?</li> <li>➤ How do you harvest them without damaging them?</li> <li>➤ Will the plant continue to grow after harvest, or do you need to start the process again?</li> <li>➤ Can you plant the same variety in the same place?</li> </ul>	<ul style="list-style-type: none"> <li>➤ Some plants grow, develop, are harvested and then die. You will need to start again and plant new seeds, seedlings or plants.</li> <li>➤ Most vegetable gardens produce better outcomes if you rotate the crop. For example, if peas are grown on one side of the garden one season, move them to the other side next season.</li> </ul>

There are many books, online articles and experienced gardeners that can help you get started with a garden project. Families with knowledge and skills are one of your most valuable resources, particularly grandparents who may have time to spend in the garden with the children; getting them involved serves many purposes.

## Garden projects

*A garden project can be started, completed and recommenced again and again.*

Each child is able to participate at different levels of interest and at different periods of time. A child who may not be excited by digging and sowing may love watering, weeding and harvesting. The passion that a child develops for one aspect may evolve into an interest in another.

You can encourage children to:

- create their own learning story about the garden
- draw plants and make posters to tell others about the garden
- develop a how to grow guide
- create a garden safety poster.

## Caring for animals

*Children can learn compassion and responsibility through caring for animals.*

However, they first need to be shown how to be a reliable and capable pet owner. The needs of the pet must always be supported, and children need to show respect for the animal at all times. Hygiene and safety factors are also a high priority.



Children can learn important life skills by helping to care for animals in the service.

If you do decide to introduce a pet, children need to be taught:

- how to handle the animal properly and safely
- what the animal eats and drinks
- what hygiene practices should be followed
- when the animal is showing signs of fear or defence
- what to do if they are scared of the animal
- how long you can keep the pet before its lifespan is reduced (for example, insects will die if kept too long)
- how to groom and care for the animal
- when to visit the vet.

Learn about pets and wildlife yourself before supporting children to care for them. Teach children the following things:

- Bread is not healthy food for birds.
- Rotten or mouldy foods can harm some animals.
- Vermin (mice, rats, etc.) can be attracted to some animals and recycling options such as compost heaps. Keep them safe and contained.
- Most pets need special care, such as vet visits, clean water, treatments, weekend or out of hours attention.

There are programs available for supporting children to understand pets (i.e. the responsible pet ownership program).

### Example

#### Learning in the garden

Keele, four years, participates in growing wheatgrass and bean shoots. This helps him to learn about nature and how plants grow. He uses recycled and natural materials to create the correct environment and to support their growth. When the plants are ready he is able to taste them.

Indirectly this helps him to learn:

- concepts such as sorting materials, how to set up a growing environment, how materials might be used, how many seeds to plant, how deep to plant them, how tall they should grow and signs that the plants are ready to eat
- communication – discussing how to grow the plants, learning new words and expressions such as wheatgrass and germination
- social skills – interacting with others to complete the task, and sharing his excitement as the plants grow
- emotional skills – feeling a sense of achievement and taking responsibility
- physical abilities – planting, watering, using a tap.





## Practice Task 4

1. The children have planted a small herb planter box in the window of the room. What concepts can children learn from this? Select all that apply.

- How to use their feet to push a shovel into the ground
- How to use less packaging
- Where food comes from
- What plants need to grow
- Names, looks, smells and tastes of different plants

2. Draw a line to match the area of importance to the example in a service.

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>* Mental health</li> </ul>                 | <ul style="list-style-type: none"> <li>* Children use physical, social, emotional, cognitive and communication skills when they are exploring a natural environment.</li> </ul> |
| <ul style="list-style-type: none"> <li>* Responsibility</li> </ul>                | <ul style="list-style-type: none"> <li>* In the natural environment children dig, feel, touch, run, jump, skip and rake.</li> </ul>   |
| <ul style="list-style-type: none"> <li>* Social and emotional learning</li> </ul> | <ul style="list-style-type: none"> <li>* Natural environments aid relaxation.</li> </ul>  |
| <ul style="list-style-type: none"> <li>* Physical development</li> </ul>          | <ul style="list-style-type: none"> <li>* Children learn how their actions can have an influence on the environment.</li> </ul>  |
| <ul style="list-style-type: none"> <li>* Child development</li> </ul>             | <ul style="list-style-type: none"> <li>* In the natural environment children talk, play, share ideas and take time to enjoy their exploration and achievements.</li> </ul>      |

## Summary

- Sustainability links to the need for us to consider the cost of everything we do. This includes costs relating to people, the planet and profits.
- Sustainability can relate to people or the environment and refers to the actions you take to enable long-term maintenance or endurance of any system or product.
- When you model, support and share information, you can assist children to become advocates for sustainability, providing ideas for their family and those in their community.
- By sharing information, you will prime others to become involved and start questioning their actions so they can participate in and implement sustainable practices.
- You need to provide clear details and reasoning if you expect others to become involved and support changes to sustainability practices.

# Learning Checkpoint 2

## Influencing the environment

1. An educator wants to provide children with an opportunity to reduce their impact on the natural environment. Which of the following experiences could the educator include? Select all that apply.

- A recycling station
- A scrap paper tub
- A water fountain
- A worm farm
- A game that uses natural materials

2. Which National Quality Standard (NQS) Quality Areas would you use as a guide when developing an experience that provides children with the opportunity to reduce their impact on the natural environment?

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3. Which of the following statements are correct about the importance of the natural environment in a service? Select yes or no for each one.

- a. When children have the opportunity to care for animals, they learn about responsibility and how to care for themselves and others. \* Yes      \* No
- b. When children appreciate the value of insects they will understand why it is important to care for them. \* Yes      \* No
- c. Children may not live in houses with large yards, but they usually have playgrounds nearby. All children will experience the natural environment this way. \* Yes      \* No
- d. Service landscapes are places where children can explore and develop their physical, social and emotional skills. This can support their long-term mental health. \* Yes      \* No

4. Which of the following might children learn when involved in growing herbs? Select all that apply.

- How to care for plants
- Counting, measuring and comparing
- Where foods come from
- Where paths should go in the outdoor space
- Shovelling, pulling and digging

5. List three things educators might discuss with children if a pet bird was introduced to the service.

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