



# GREEN YOUR SCENE

COURSE BOOKLET



Yr 7/8

# Instructions For Students

This course will consist of seven online lessons (plus an optional extension lesson). Each lesson will require you to read or view important information. Some lessons will require you to complete quizzes based on the information you have learnt. To pass each quiz, a score of **at least 70%** will be needed to progress to the next lesson. Other lessons will outline hands-on activities, experiments or design tasks that can be completed in the classroom. In each lesson, you will be asked to reflect on and record your work in the Learning Journal, a PowerPoint, which you can submit to your teacher at the end of the course.

## Save the Learning Journal to your computer:

- PowerPoint: [GreenYourScene-Journal.pptx](#)

The Learning Journal can be used in the following ways. Students may choose to:

- Save the PowerPoint document in the Google Drive. The document can be opened and edited, at any time in Google Slides. Changes will be saved automatically. At the completion of the online course, students can email their teacher with a link to their Learning Journal as evidence of work completed.
- Save the PowerPoint document on the computer. The document can be opened, edited and saved at any time. At the completion of the online course, students can email their teacher with the PowerPoint document attached as evidence of work completed.
- Open the PowerPoint document, download and print the pages. Record learning with hand-written responses. At the completion of the online course, students can submit the hard copy of their work to their teacher as evidence of work completed.



## LESSON 1

### How Can Plants Improve Our Health?

For years, scientists around the world have been carrying out experiments to show the world that plants are good for our health and happiness. That's a lot of experiments!

Scientists looked carefully at the data that they collected from scientific articles and research studies and worked out that there are two big benefits to having plants in our lives...

**Air Quality** - Removing air-borne toxins created by paints, furniture finishes and air pollution. Just one or two plants starts to increase air quality significantly in a space.

**Well Being (mental health)** - Creating feelings of relaxation, inspiration and positivity. The first few plants give a limited benefit, but once you start to create a look, wellbeing increases quickly. Variety of sizes and species is key. (<https://plantlifebalance.com.au/the-science/>)

However, you will find throughout this lesson that there are many more benefits to having 'green in your scene'!

In this lesson we will be exploring in depth, how plants can improve our health. This will include:

- Mental health and well being
- Improved air quality
- Space for physical exercise
- Decreasing heat
- Plants as medicines- aboriginal bush medicines



### Mental Health and Wellbeing

#### What is mental health and wellbeing?

According to the World Health Organization, mental health is “a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.”



## How can plants improve our mental health?

Click on the link below to explore more of the scientific information that has linked plants to improved well being.

- [The Science](#)

Gardening Australia (ABC) has done many stories about the benefits of plants in improving mental health and well-being, not just for children but adults too!



## Watch the following clips about the benefits of having plants in our lives.

1. Gardening Australia – Creating a ‘plant life balance’, benefits of plants to stressful lives, handing out plants to city workers for their offices.

- [Pots of Health and Happiness](#)

2. Gardening Australia - Mental health benefits of gardening and being around gardens

- [Mental As... - Fact Sheets](#)

3. Getting back to nature- Nature play and connecting with the bush and mental health

- [Getting Back to Nature - Fact Sheets](#)

4. There is also lots of interesting information about the great outdoors and how it can benefit our physical and mental health.

- [The Science](#)

## Air Quality

### Why is air quality important?

According to The Department of Agriculture, Water and Environment  
*“air quality affects our health, the liveability of our cities and towns, and our environment. Air pollution, particularly from human activity, can cause health problems that affect the heart and lungs, and can cause cancer. Even short-term exposure to air pollution can cause health problems. Children, the elderly and people with existing heart and lung conditions are especially affected by air pollution”.*



## How can plants improve air quality?

Plants clean the air through the process of photosynthesis. As humans breathe in oxygen and breathe out carbon dioxide, plants do the opposite. They absorb light, carbon dioxide, and water to manufacture sugar. This chemical process creates oxygen as a byproduct.

Click on the link below to explore more of the scientific information that has linked plants to improved air quality.

- [The Science](#)



A 1989 NASA study explains exactly how plants remove toxins from air by trapping them in their leaves, soil, and roots, and which houseplants clean air the best. Watch the clip below to find out more!

- [A NASA study explains how to purify air with house plants](#)

## Space For Exercise

### What is exercise and why is it so important?

Physical activity or exercise can improve your health and reduce the risk of developing several diseases like Type 2 diabetes, cancer and cardiovascular disease. Physical activity and exercise can have immediate and long-term health benefits. Most importantly, regular activity can improve your quality of life. A minimum of 30 minutes a day can allow you to enjoy these benefits.

### Benefits of regular physical activity

If you are regularly physically active, you may:

- reduce your risk of a heart attack
- manage your weight better
- have a lower blood cholesterol level
- lower the risk of type 2 diabetes and some cancers
- have lower blood pressure
- have stronger bones, muscles and joints and lower risk of developing osteoporosis
- feel better – with more energy, a better mood, feel more relaxed and sleep better.

(Source: <https://www.betterhealth.vic.gov.au>)



Below are some articles that have been written about the benefits of having green spaces and room to be outside to exercise. They focus particularly on the overall health benefits and how, having a green space, is good for our mental health.

## Turf

### What is turf and what is it used for?

Turf is the term we use to describe the type of grass used on a lawn. Turf grass is usually a functional grass, rather than the bushier ornamental grasses that can sometimes be used to decorate gardens.

The grass in gardens is there to serve a purpose, whether that purpose is providing somewhere comfortable to sit, a place for children to run and play or just to look great. It also serves a few other purposes, which include

- Keeping the ground warm/cool
- Preventing erosion in times of heavy rain
- Helping to prevent flooding.

### Why buy turf?

According to experts, maintaining a healthy lawn is extremely difficult, as it can be prone to weeds, disease, pests and even issues with soil that can cause patches of the lawn to appear brown and dead. One of the easiest ways to have a healthy lawn is to buy specially grown turf. It is grown on a high-quality topsoil and maintained to the highest level so that when it is put in your garden, it has the best chance of being as good as it can be.

You can learn more about the benefits of turf using the Turf Australia link below.

- [Turf Australia](#)

More information about the benefits of having green spaces can be found using the links below:

- [It's not easy being green: the great outdoors and health and wellbeing](#)
- [Green Space is Good for Mental Health](#)
- [Exploring new health and green-space links](#)
- [It's not easy being green: the great outdoors and health and wellbeing](#)



## Climate Change And Increasing Temperatures

### How Can Plants Help Us To Keep Cool?

Climate change describes a change in the average conditions — such as temperature and rainfall — in a region over a long period of time. These include warming temperatures and changes in precipitation, as well as the effects of Earth's warming, such as rising sea levels. ([What Is Climate Change?](#))

You might have noticed that the school playground is getting hotter and hotter every year. The equipment is hot, the sand pit is hot and the concrete areas are scorching! So how can we make our schools and our homes cooler? One of the best ways is to 'green your scene'! That's right! Trees, plants and grass can help to keep our outdoor spaces cooler and more usable during the summer heat.

### How can 'greening our scene' help us to keep cool?

Watch this short video about reducing the heat in cities by creating vertical gardens on towers

- [Why plants are good for liveable cities - 7,10 \(Geography\)](#)

Read this article about how using turf can reduce urban heat island effect

- [Greening our cities – reducing the 'urban heat island' effect](#)

Read this article by Greening Australia about using trees in park design to cool heat affected suburbs

- [New park designs to cool heat-affected suburbs in Perth - Greening Australia](#)

Channel Nine news has written an article about how the suburbs of Sydney are heating up because people are cutting down too many trees.

- [Lack of trees exacerbates extreme heat effects in Australian suburbs](#)

Where should you plant trees in a school? The best places to put trees to ensure they help to keep you cool!

- [Fact Sheet](#)



## Aboriginal Bush Medicine And Tucker

### What is Aboriginal bush medicine?

For tens of thousands of years Aboriginal people have lived in Australia, relying on plants for food and medicine. Plants are used by Aboriginal people in a variety of ways to help them to feel better when feeling sick. Plants can be used as antiseptics, cures for toothaches and mosquito repellents, just to name a few.



### What are example of plants that are used in traditional bush medicine?

Aboriginal Bush Medicines- Plants as medicines

- [Top 10 Aboriginal bush medicines](#)

Aboriginal Bush Medicine- PDF document

- [Aboriginal Bush Medicine](#)

Watch these Youtubes on Bush medicines

- [Bush Medicine](#)
- [Plants uses and medicines near Woorabinda with Steve Kemp](#)

### Bush Tucker

According to Dr Evelin Tiralongo, a pharmacist and expert in complementary medicine from Griffith University in Queensland, most Aboriginal medical treatments were derived from food. "A big part of maintaining their health was just eating right," she says.





The best thing about Bush Tucker, is that it is easy to grow and something your school could try growing!

## How can you make your own bush tucker garden?

Tucker Bush Schools Program-why have a bush tucker garden at your school?

- [Tucker Bush Schools Program](#)



## LEARNING JOURNAL ACTIVITY #1 – RESEARCH TASK

- What are some things that you can do to help keep your school playground cool this summer? What would just make it a really great place to be?
- In your Learning Journal, make a list of the types of plants and grasses you could plant in your school to help to Green your Scene and keep you cool this summer.
- Draw a map in the space provided in your journal of your school playground (or part of it) and include where you would need to plant trees and grass to ensure that it stayed cool during the summer. Can you also include a vegetable garden or bush tucker and medicine garden?



## TEST YOUR KNOWLEDGE!

### ACTIVITY

1. Watch the Gardening Australia segment 'Mental as...'. George Georgiadis says that "When it comes to mental health \_\_\_\_\_ is the best form of therapy".

- Exercise
- Breathing deeply
- Gardening
- Prevention

2. According to *The Science- Plant life Matters* article, just one plant can improve air quality by 25%.

- True
- False

3. Having green spaces to exercise in is really important to our health. Research has shown some of the health benefits of exercise are:

- reducing your risk of a heart attack
- managing your weight better
- lowering the risk of type 2 diabetes and some cancers
- All of the above

4. According to the article *Benefits of Turf* by Turf Australia, employees with a view of lawns have

- less stress, fewer headaches, increased work productivity.
- more chance of being distracted and not completing their work.
- a higher incidence of mental health problems.
- fewer long term job opportunities.

5. Watch the segment by ABC education, 'Why plants are good for livable cities' and answer the following question.

Central Park in Sydney was voted the world's best tall building. It is known for the plants in its beautiful vertical gardens which cover its surfaces. How many plants are covering this building?

- 50 000
- 25 000
- 45 000
- 70 000



6. Read the article by Hort Innovations, *Greening our cities – reducing the 'urban heat island' effect*. What are the missing words in the following explanation?

As cities and towns grow – greenery is lost and replaced with hard constructed surfaces. These surfaces \_\_\_\_\_ causing an 'urban heat island' effect.

- Reflect and spread heat
- absorb and retain heat
- get rid of excess heat
- move and dissipate heat

7. Watch the YouTube *Plants uses and medicines near Woorabinda with Steve Kemp*. What plants does Steve tell us will keep mosquitoes away?

- Tea tree
- Lemon scented gum
- Lemon myrtle
- Wattle

8. Watch *Bush Tucker Garden* by BTN and answer the following True or False question. Do you need to cook Warrigal Greens before eating them?

- True
- False



## LESSON 2

### Community Green Spaces

#### What is a 'green space'?

Green spaces are any areas of vegetation (including grass, trees and gardens) that are set aside for recreational or aesthetic purposes in an otherwise urban environment.



As many communities throughout Australia become more urbanised and developed, it has become increasingly important to ensure these natural spaces are created and maintained. They allow space for members of the community to relax, exercise and socialise outdoors while connecting with nature.

Green spaces within urban areas can take a variety of forms, including

- parklands and reserves,
- community gardens,
- gardens of cultural significance and
- school gardens.

In this lesson we will explore the **environmental, health** and **social benefits** of having green spaces such as these within our communities.

#### **Parklands and reserves**

**Parklands** are used by people for a variety of purposes, including exercise, sport, dog walking, picnics and relaxation. They provide space for groups of people to gather and socialise. Usually, urban parklands have areas that are open and grassy, combined with



areas dedicated to trees and gardens. Playgrounds, walking paths, seating areas and public toilets are other facilities often included in the design of a parkland space.

**Reserves** are areas of land that are predominately untouched and in their natural condition. People might use these areas for bushwalking, photography, birdwatching and appreciating the natural environment.

There are many reasons why people believe that parklands and reserves are vital to our urban communities. Watch this segment from *The Feed* (SBS) on the research that has been done into why our cities need more parklands. Take note of the environmental, social and health benefits of parks that are mentioned.

[Why we need more green spaces in our cities](#)



The importance of having parks in our cities was never more evident than during the COVID-19 pandemic in 2020. With people's movements and activities affected by various restrictions, parks became a very popular space for people to get outdoors, exercise and take a break. Read this *Sydney Morning Herald* article about how the popularity of parks rose dramatically during this time, and how important they were to the physical and mental health of community members.

[Massive boost to outdoor exercise in Sydney's green spaces during COVID-19, survey finds](#)

## Community gardens

A community garden is a piece of land that is gardened collectively by a group of people. They are places where people can gather together to grow food (fruit and vegetables), plants and flowers. Community gardens are recognised as providing opportunities for people to

- grow their own food,
- build positive community relationships,
- exercise,
- learn new skills and knowledge about food and gardening,
- relax and unwind.

In cities and towns where there are many residents from diverse cultural backgrounds, community gardens are a wonderful way for people to grow food from their home countries that is not available in Australian supermarkets. It also gives the gardeners the chance to learn from each other about new plants grown in different parts of the world, and how best to grow, prepare and eat them.



Watch this Gardening Australia story about a successful community garden in St Kilda, Melbourne. It is a wonderful example of how important green spaces such as these can be for establishing community connection, and for promoting healthy habits (both mentally and physically) for the community members involved.

- [A growing community - 7 \(Geography\)](#)

## Gardens of cultural significance

Community green spaces can often provide opportunities for people to share important information and knowledge from their culture. Plants have traditionally been used by cultures all around the world for many purposes- not only for food and sustenance, but also for medicine, clothing, building materials and technologies. People who hold knowledge about such plant uses recognise the importance of sharing this information with others so that the knowledge is not lost.

The ways in which **Aboriginal people** use native plants is of particular significance in Australia, and there are many people working to ensure that this information is being remembered, passed on and practised.

In this video, a group of trainees from the La Perouse Aboriginal community are being taught about the cultural significance of certain plants growing in their local area.

- [The many uses of indigenous plants - 4,7 \(Science\)](#)

## Green spaces in schools

According to the Australian Bureau of Statistics, there were 9,503 schools across Australia in 2019, catering for almost 4 million students. If each of these schools incorporated trees, gardens and lawn into their playground design, it would play a significant role in increasing the green space within our communities, while also giving students the opportunity to play and learn in pleasant outdoor spaces.

Research has shown that school grounds can play a crucial role in what is known as the 'urban heat effect'. Surfaces common to many schools, including asphalt, artificial grass and soft-fall are very heat absorbent and university researchers have recorded extremely high temperatures (over 60 deg.C) on such surfaces. This impacts not only the health and safety of students, but also the climate and environment of the area surrounding the school.

Read more about this research conducted by Western Sydney University, which recommends that the inclusion of **grassed areas (turf)**, **gardens** and **mature shade trees** can greatly reduce the amount of heat within a school playground.

- [New research reveals the hidden danger of sweltering heat at Western Sydney schools](#)



Having green spaces in schools can also promote healthy and active behaviours in students, while giving them the opportunity to learn practical and relevant life skills. Grassed areas are wonderful spaces for exercise and the practice of sporting skills. Kitchen garden programs are great ways for children to learn how to grow and cook their own fruit and vegetables. Many schools have also found that gardening programs can have a positive impact on student confidence, connectedness and relationships. Watch this Gardening Australia (ABC) segment, which profiles a successful garden program in a secondary school that has achieved many positive results.

- [Life lessons in a living classroom - 9 \(Science\)](#)

## ACTIVITY

### LEARNING JOURNAL ACTIVITY #2

1. Use Google Maps to identify the community green spaces within your local area. Create a list in your journal of the different parks, reserves, gardens & school grounds in your area. How many have you visited?
2. Choose a park in your local area (preferably one you have visited) and complete the *Park Profile* activity in your journal.

## TEST YOUR KNOWLEDGE!

### ACTIVITY

What is an example of a community green space?

- parklands and reserves
- community gardens and school gardens
- gardens of cultural significance
- all of the above

2. Watch the segment from *The Feed* (SBS) *Why we need more green space in our cities*. Research has shown that growing more trees in urban settings can drop temperatures by up to

- 2 degrees
- 4 degrees
- 5 degrees
- 8 degrees



3. Watch the segment from The Feed (SBS) *Why we need more green space in our cities*. University researchers in this segment suggest that having more green spaces in our cities can directly improve

- our diet
- the way people/children learn
- koala habitat
- bird populations

4. Read the ABC news article *Massive boost to outdoor exercise in Sydney's green spaces during coronavirus, survey finds*. How many people used the tracks and trails in Western Sydney parklands during the COVID-19 lockdown period?

- a 100% increase in users from before the COVID-19 period \*
- 10,000 visitors over the long weekend
- a 20% increase in users from before the COVID-19 period
- 5,000 more visitors than the same period the year before

5. Watch the Gardening Australia (ABC) segment *A growing community*. What benefits does the community garden in St Kilda provide for gardener Betty Fevola?

- the exercise of walking to the garden on a regular basis
- a social life with the other gardeners
- the pleasure of growing your own food
- all of the above

6. Watch the Gardening Australia (ABC) segment *The many uses of indigenous plants*. The trainees in the clip teach us that the bracken fern can be used for

- making weapons such as spears
- weaving baskets from the leaves
- rubbing the new shoots on your skin to take the pain of bites or stings \*
- using dye from the berries

7. Why are turfed playing fields considered to be more beneficial than artificial playing fields in schools (particularly those in built-up areas)?

- turf provides a more natural habitat for insects and birds
- turf is less heat absorbent than artificial grass and can help to reduce the 'urban heat effect'
- turf is a softer surface for children to play on
- turf looks nicer than artificial grass





8. Watch the Gardening Australia (ABC) segment *Life lessons in a living classroom*. What are the reasons that student, Jamie, gives for the school garden helping with his work in the classroom?

- it gave him a place to use mathematics in a real-life context
- it gave him the opportunity to talk to other people, discuss ideas ask questions
- it gave him a place to expel some energy before working inside
- it taught him new practical, hand-on skills



## LESSON 3

### Backyard Living

Australian outdoor living is hard to rival – the warm, temperate climate encourages the year-round enjoyment of backyards, courtyards, patios, verandahs and balconies. These alfresco areas are sometimes referred to as outdoor rooms. Modern backyards and gardens are often seen and treated as extensions of the home.

So let's learn a little bit more about how bringing your home 'outside' can make it so much better!

#### Apartment and small space living- Gardens that can be made in small spaces

Gardening Australia – creating a rooftop garden for apartment living. Sometimes if you don't have enough space in your apartment you have to go on top of it!

- [The Sky's the Limit - Fact Sheets](#)

Here are some really helpful small garden design ideas. Which ones do you like best?

- [25 Small Garden Design Ideas | Australian House And Garden](#)

Carolyn from Gardening Australia shows how, with clever design, you can maximise even the smallest site, creating the illusion of space

- [Small Spaces, Big Ideas - Fact Sheets](#)

Balcony Gardens- how to make a garden in a challenging space

- [Making a Balcony Garden - Fact Sheets](#)

When working with small spaces it calls for lots of creative ideas! One of those is using the vertical spaces in the area that you have to work with. But how do you do that? Let's find out!

- [Green Walls bridge gap between urban cities and nature](#)

You can even grow vegetables vertically!

- <https://www.abc.net.au/gardening/factsheets/vertical-vegetables/11575208>



## But what if you have lots of space in your backyard? What are the best ways to Green your Scene?

As we examined in Lesson 1, grasses, plants and trees have so many benefits. They cool the environment, clean the air, and help to keep us healthy. Working in the garden improves our mental and physical health, and growing vegetables can mean that we have a great diet too!

Let's have a look at some ways you can create a backyard space with everything you need to stay fit and healthy!

### Veggie gardens

Growing your own food has many clear advantages, but it also has some unexpected benefits. For a start, kitchen gardening is a great way for people to connect to nature. Find out more about the benefits of growing your own veggies using the links below.

- [Kitchen gardens - food for good health](#)
- [Planning a vegetable patch that produces all year round in Australia](#)

One tip for working out where to start when growing your own veggies, is to start by growing things that you love to eat!

What fruit and vegetables do you like to eat?

Can you grow them in the area that you live? Use the guides in the link below to check if you can grow your choices in the area where you live.

- [Yearly Seasonal Gardening Australia Vegetable Garden by Temperate \(Regional\) Zone](#)

### Grass

Real turf vs artificial turf, what's best for my backyard?

What is going to keep you cooler in summer and what's best for the environment?

- [Why Real Grass is Better than Artificial Turf](#)



## Backyard chickens

The popularity of keeping chickens continues to grow year by year with more backyards across Australia discovering the joys of keeping their own flock. Today, there are a huge variety of chicken breeds available, with at least one of them sure to be right for you! Before you commit to your own flock it is vital be absolutely sure that keeping your own chickens is right for you.

According to Poultry Australia, it is important that prior to starting your flock that you check with your local council about the regulations for keeping chickens in your area. Most suburban councils will limit the number of birds that you can keep and will not allow residents to keep a rooster due to the disturbance that they could cause to neighbours. Most rural and semi-rural areas will allow households to keep poultry for domestic purposes without restrictions. Regulations that are specific to your local council can be found on their website or by contacting them directly.



Let's find out more about keeping backyard chickens, like what you need to keep healthy chickens and the benefits they will provide to your family and your backyard!

- [Chook Lookbook - Fact Sheets](#)
- [The Chicken Whisperer - Fact Sheets](#)

## Flowering Plants And Tree Varieties

### Trees vs Shrubs

You have probably heard of people talking about shrubs and trees and know what they look like, but what is the difference between a shrub and a tree?

Shrubs are defined as woody plants that tend to have a rounded shape. They can be deciduous or evergreen and can grow in gardens with flowers and colourful foliage and stems.

The main difference between shrubs and trees is that shrubs have several main stems growing from the ground, whereas a tree has one trunk.



Trees are arguably the most important aspect of outdoor spaces. They let the earth breathe, clean the air, provide shade, beauty and shelter, as well as hold soil together preventing soil shifts and even landslides.

But how do we know what trees and shrubs are best for our gardens? Read the following articles and watch the clips from Gardening Australia to help you to understand.

- [10 trees to plant in backyards big or small](#)
- [Trees and Shrubs](#)
- [Backyard Fruit - Fact Sheets](#)
- [Backyard Beauties - Fact Sheets](#)

## Perennial vs Annuals

According to [Annuals, Perennials and Biennials - Understanding Plant Life Cycles](#) “annual plants complete their entire life cycle in a single growing season. The seed will germinate, and then develop a root system, stems, and leaves. Once mature, the plant will flower, produce seeds, and then die off. The newly produced seeds will then stay dormant until the cycle begins again next season.

Perennial plants can stay alive for several years, and produce many rounds of flowers and seeds over their entire life cycle. Technically, a perennial is any plant that lives for three growing seasons or more, but in common use the term usually describes smaller herbaceous plants rather than larger trees, bushes, and shrubs.

Perennials can either be evergreen, meaning they keep their foliage all year round, or they can die back in winter before reappearing in spring from the same root base.

Look at the Garden Express website and find some plants that you think would suit your outdoor space at home. Remember to check to see if they will grow in your climate!

[Garden Express: Australia's largest online and mail order garden supplier](#)



## LEARNING JOURNAL ACTIVITY #3

Growing fruit and vegetables can be done in large and small garden spaces and are a fantastic addition to any backyard or balcony. Use the [Yearly Seasonal Gardening Australia Vegetable Garden by Temperate \(Regional\) Zone](#) link to help you complete the table in your learning journal. This site will help you to work out what you can plant and when the best time of year is to grow it.



Think about your home. How much outdoor space do you have? What would your dream garden have in it? Fill out the table in your learning journal to help you to work out what you need to make your dream garden become a reality! You will be focussing on the types of plants that you want in your garden, growing your own fruit and vegetables, your family needs and one 'dream' element.

## TEST YOUR KNOWLEDGE!



1. You can make a garden, even in a small space like a balcony or veranda.

- true
- false

2. Watch Carolyn from *Gardening Australia* showing how, with clever design, you can maximise even the smallest site, creating the illusion of space. What are some ways to create the illusion of space?

- perspective
- colour
- plant varieties
- all of the above

3. One tip for working out where to start when growing your own veggies, is to start by growing things that you love to \_\_\_\_\_!

- waste
- throw away
- eat
- put in the compost

4. Read the article *Real Turf v's Artificial Turf* by Handy Man Can. What are the advantages of using real turf in your backyard?

- it's cooler
- costs less
- lasts longer
- all of the above



5. According to Poultry Australia, it is important that prior to starting your flock you check with your local council about the regulations for keeping chickens in your area.

- true
- false

6. The main difference between shrubs and trees is that shrubs have \_\_\_\_\_ growing from the ground, whereas a tree has one trunk.

- lots of twigs
- several main stems
- an abundance of leaves
- colourful foliage.

7. If I planted annual plants in my garden I would expect them to last

- single growing season
- at least 3 years
- all year
- all of the above

8. Watch the Gardening Australia segment, *Backyard Beauties*. What are the backyard beauties?

- wattle trees
- eucalyptus trees
- bottle brush
- banksia



## LESSON 4

### Bringing The Garden Indoors

In Lesson 3, we examined the ways in which people can create their own 'green scene' in their backyards or in other outdoor spaces surrounding their homes.

There is a growing trend, however, of people living in homes that do not have any private outdoor space available for gardens or lawn. Apartment living in urban areas is increasingly common and will continue to be so in the future. In this lesson, we will look at different ways in which people have brought their garden indoors, and the benefits of doing so.

#### What are indoor plants?

Plants grown indoors are generally planted in pots. Most require natural sunlight that comes through windows or skylights, and need to be watered using a watering can or spray bottle.

Not all plants are suitable for being grown indoors, so research into which plants thrive in an indoor space is required.

Diagrams such as this give information about different species of plants with explanations as to the reasons they grow well indoors, the benefits of growing the species and the best ways to look after them (Image from Calloway's Nursery).

#### What are the benefits of growing plants indoors?

Researchers have discovered that having plants around you on a regular basis can provide a range of positive physical and psychological health benefits. Some of these benefits include:

##### Producing oxygen

Plants absorb carbon dioxide and use the gas to photosynthesise (create food from light). In this process, they release oxygen, which is essential for our survival. Growing plants indoors will not provide people with all the oxygen they need, however these plants can still play an important contribution to oxygen production.





## Removing toxins and purifying air

Volatile organic compounds (VOCs) are contaminants in our air that can create illness. They are often found in higher concentrations in indoor spaces as opposed to outdoor spaces. Research has shown that the inclusion of plants in an indoor space can help reduce the amount of VOCs in the air.

## Increasing productivity

If you are being productive, you are very efficient at getting things done. Some people believe that the oxygen production and air purification provided by plants can have a positive effect on people's ability to get their work done efficiently. Many offices include plants in their workspaces for this reason.

## Decreasing stress and creating a relaxed environment

Research findings suggest that people who feel stressed feel significantly better after being exposed to nature and natural elements. Bringing the garden indoors can bring these natural elements into a space where they are being seen and appreciated on a regular basis.

Read more information about the health benefits of indoor plants in this ABC news article:

- [Indoor Plants Don't Just Look Nice — They Are Healthy, Too](#)

## Growing plants in a range of indoor spaces

People's apartments and homes are not the only places where the inclusion of indoor plants are considered to be beneficial. Other indoor spaces where plants can be grown may include:

- Offices and work spaces
- Schools and classrooms
- Hospitals and nursing homes
- Shopping centres
- Restaurants and cafes

Can you think of examples of plants being grown in places such as these that you have seen? Are there any indoor spaces you can think of that would benefit from the inclusion of more plants?



## Designing an indoor garden

Just as landscape design is an important part of any outdoor green space, planning a plant-filled indoor space in an aesthetically pleasing way is a growing industry in interior design.



Examples of design considerations when creating an indoor garden may include:

- Growing plants of various heights to create a layering effect
- Growing different species of plants with varying colours and leaf shapes to make the indoor garden more visually interesting
- Choosing plants that will change throughout the year (e.g. produce flowers)
- Choosing plants that can be used for purposes other than aesthetics (e.g. food, medicinal).

Watch these Gardening Australia (ABC) segments to see examples of how two individuals have designed their indoor spaces to include elaborate indoor gardens. Take note of the design considerations they took into account in their planning, along with the reasons they think that bringing the garden indoors is of such benefit to their lives.

- [Come home to a jungle | Indoor plants | Gardening Australia](#)
- [King of the Indoor Jungle | My Garden Path | Gardening Australia](#)



## Learning Journal Activity #4

In this lesson we have examined the benefits of growing plants indoors and have seen ways in which people have designed their own indoor gardens.

Your **design task** will be to **design your own indoor green scene**. Follow the instructions below to complete this task:

1. Choose a room you know that could benefit from the inclusion of indoor plants. This room could be in your home, your school or the workplace of a family member.
2. Using an iPad, tablet or smartphone, download the free **Plant Life Balance** app.
3. The app will give you the options to **Rate my Space** and **'Style my Space'**.



4. 'Rate my Space' gives you the chance to get a plant-life balance rating on your room by entering information on the size of the room and the plants already existing in the space.

*NB: This is optional.*



5. Press 'Style my Space'. You will be able to take a photograph of your room and 'add' indoor plants to the image using augmented reality. You can choose the plants you would like to use from a selection of indoor plants listed in the app. Consider the design elements we have examined in this lesson as you add your plants, for example plant heights, shapes, colours and positioning.
6. When you have completed your design, the app will provide you with a plant-life balance rating based on your new green scene. Click on 'Share and save'. Send the image to an email account that you can access.
7. Open the emailed image and save to a secure place. Include this image in Learning Journal Activity #4 and answer the questions in your Learning Journal relating to this design task.



## LESSON 5

### ACTIVITY

#### Learning Journal Activity #4

#### Design Your Own Garden

Throughout Lessons 1 - 4, we have learnt how green spaces can positively impact on our health, and examined ways in which people have created green scenes in

- shared community spaces,
- backyards, balconies and rooftops around the home, and
- indoor spaces.

Using the information which you have learnt from these lessons, your final task will be to **design your own garden** and include it in your **Learning Journal**.



Your design should be based on an **outdoor area that you know well** - it might be your family backyard/balcony, or a space within your school or local park.



## Design Considerations

When you're planning a garden, there are a lot of factors to consider, including

- Where is your garden located?
- Who are the users of your garden? What needs and requirements do they have for this space?
- Will you use turf to create an open, grassy area for recreational space?
- Do you want your garden to be one that produces food? If so, what types of fruit trees and vegetables will you plant?
- Do you want to attract pollinators? If so, you should consider planting some flowers that attract bees as well as some flowers that attract butterflies.
- Which varieties of plants in your garden will you use to help it look interesting and attractive?
- Will you include trees for shade and shrubs for colour and variety?
- How about some backyard chickens?
- Don't forget the essentials! Backyard spaces, for example, will need space for a clothesline and maybe a shed.

There is so much to think about!

## Where do I start and what do I need to put in my garden?

Gardening Australia has put together some segments on garden design and basic garden design principles (site, materials and plants). Have a look and see what you can learn about designing a fantastic backyard!

These segments will be essential in helping you to complete your final design task.

- [Good Garden Design - Fact Sheets](#)
- [Planning a Backyard - Fact Sheets](#)

## Let's get started on your garden design!

Now that you have more of an idea about how to create your garden design, it's time to get started!





## Step 1: Research

Research garden designs and landscape plans online for ideas and inspiration. The links below will help you get started.

- [27 Super Cool Backyard Garden Ideas \(PHOTOS\)](#)
- [Landscape Plans | Better Homes & Gardens](#)

Revise the research and tasks that you have already completed from Lessons 1 - 4 in your Learning Journal. This information will also help you to complete your final design.

## Step 2: Plan

Go to Lesson 5 in your Learning Journal and complete the **design brief** for the outdoor space you have chosen.

## Step 3: Design

Discuss with your teacher the best way to present your design. Options may include:

1. Using a computer-based design program such as **SketchUp for Schools**. This is available free, as a browser-based program for Primary and Secondary schools signed up with G Suite for Education or Microsoft Education. You might find the following YouTube helpful to understand how to use SketchUp for landscape design.

- [Landscape and Planting Options in SketchUp](#)



2. Hand draw your design on A3 paper or poster-sized cardboard.

### Step 4: Reflect

As you design, ensure that you stick to your design brief! Reflect on the needs of your users and the ways in which this green space could improve or enhance their everyday lives.



### Extension Activity (Optional)

Planning and planting a garden, whether it be big or small, will cost money! Using your design, you need to find out exactly how much your dream garden is going to cost.

Use the following websites to help you determine how much your plants and landscaping items are going to cost.

- [Garden Express](#)
- [Bunnings Warehouse](#)
- [Mitre 10](#)

Set your work out in a table, similar to the one below, or use an excel spreadsheet to list your products and calculate the total costs.

Product	Number	Cost per item	Total
Lavender	10	\$6.95	\$69.95



## Checklist Of Activities

This online course has several individual activities or tasks that you **MUST** complete and submit to your teacher. Here is a list of tasks to tick off against your portfolio to ensure you've included everything.



### Green My Scene Activities

- How Can Plants Improve Our Health?
- Community Green Spaces
- Backyard Living
- Bringing the Garden Indoors
- Design Your Own Garden

**Certificate of Completion** - Save a PDF copy to include in your portfolio or screenshot it.

**Remember:** You should contact your teacher to confirm how they want you to submit your work.

You will need to save your Learning Journal named Green Your Scene LJ - YOUR NAME that includes all of your answers. Make sure that you include all text, drawings, tables, brainstorm, model photos, etc that are asked for in the tasks. Once you have completed all of the activities, you will need to send this 1 file to your teacher for marking.

It is your choice what software you will use to create your portfolio. We recommend:

- Microsoft PowerPoint

Other tools you could use to present your portfolio include:

- Keynote
- Google Slides

To complete this unit, you need to complete all of the lessons, videos & tasks.

