Greening and Growing Together: Primary School

We are part of nature and nature is part of us. Let's explore our personal strengths, the food we eat and how to establish healthy environments.

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People

People have so much to offer when they believe in themselves. Let's celebrate who we are!

Find activity sheets on the next pages.

Key words

Characteristics, diversity, unique, resilient, portrait.

Investigate

Complete this Think, Pair, Square, Share activity sheet **Who am I?** and the **Personality Traits Role Play** to identify the positive characteristics that people and plants display during challenging times.

Plan

You've done some brainstorming and a role play. Now it's time to start thinking about the personality traits that make you special by identifying the characteristics that make you, who you are. Record your responses on the **What Makes Me Unique** activity sheet.

Take action

Use art to show the world who you are, just like a flower in full bloom, celebrating a new beginning and the richness of your character.
Focussing on your personal characteristics, create a **Self Portrait** (activity sheet) using a variety of materials and decorate with labels.

Monitor

Check to make sure you've included all the words that make you who you are. Look at each others' work and share ideas.

Celebrate

Create a class display! Under the quote, 'Today you are you! That's truer than true! There is no one alive who is you-er than you.' - Dr Suess, display the labelled portraits to celebrate and value everyone.

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Thinking Task: Who am I?

You are an individual and there is no one else like you, but do you know who you are?

In a forest, all trees are unique. Some trees are tall and some are short, but all have deep roots and are skilled at adapting to change. This is the reason why they are so resilient. In this activity, we'll be identifying the positive personality traits that people demonstrate during challenging times.

Materials

- Pens/pencils.
- Print copies of pages 2 and 3 for everyone.

Task

- Let's think of as many words as we can to describe someone's personality. The describing words will be used in the following activities. Here's some examples: brave, intelligent, happy, musical, energetic, artistic.

Think...

In the box below, record as many words as you can that describe people you know. You have 5 minutes.

Pair...

Find a partner, compare and combine your lists from activity one. Record new words in the box below.

Square...

Find another pair, compare and combine your lists again. Record new words in the box below.

Share...

Bring this activity sheet to share with the whole class. Record new words you hear from other 'squares'. The lists will be needed in the following activities.

What Makes Me Unique?

There is no-one like you. We all have our own personalities and we possess different strengths.

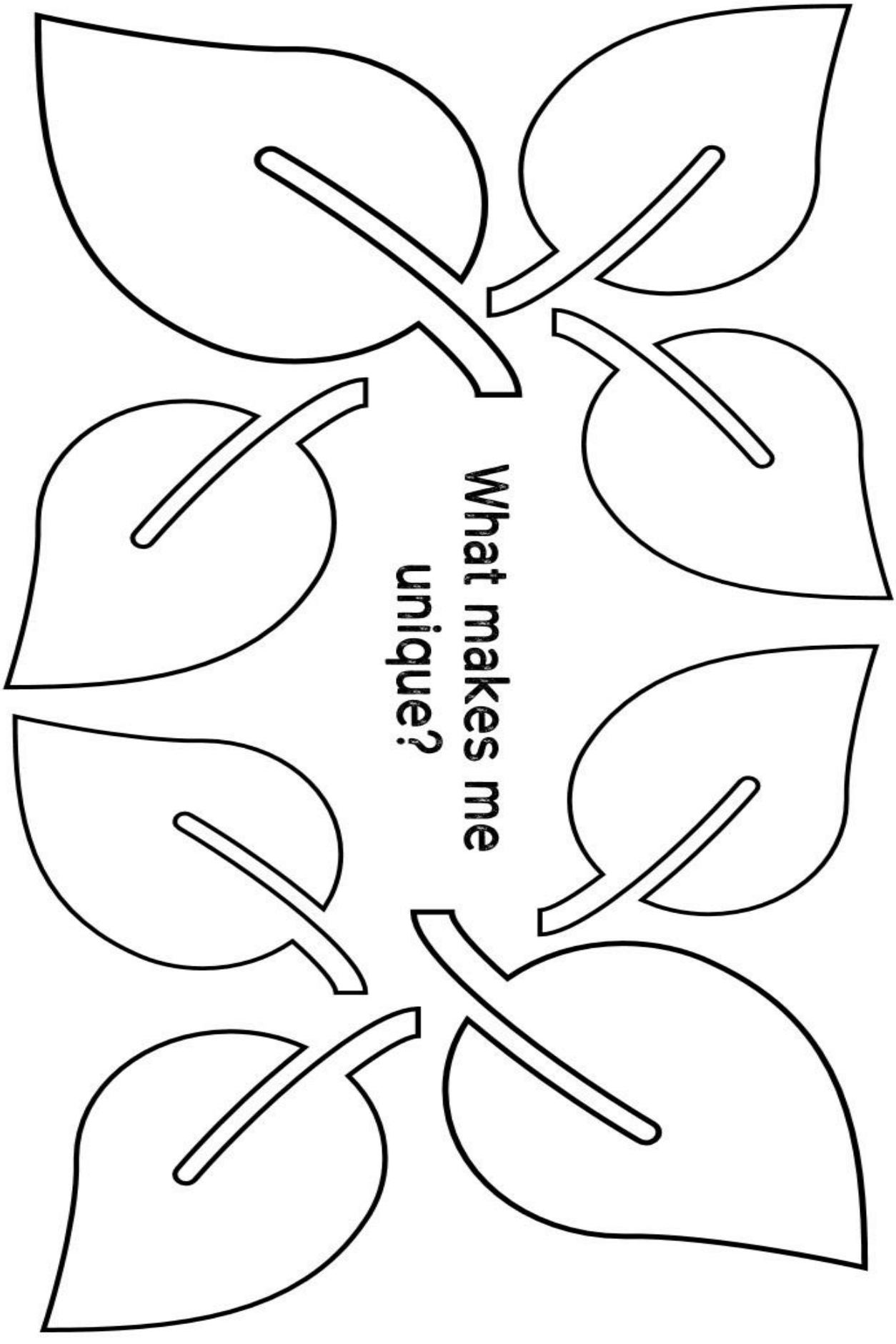
Grow above the grass and reach for the sun, sharing all your beauty!

Materials

- Pencil/Pen.
- Copy of the MindMap on page 2 for each student.

Task

Let's build a list of words that describe our uniqueness. In the leaves, record all the words that describe your personality. Use describing words that have been already shared in the brainstorm and role-play, or feel free to add some new ones.



This is me!
A Self-portrait

It's time to celebrate what makes you special. Let's use art to show the world who you are, just like a flower in full bloom, celebrating a new beginning and the richness of your character.

Materials

- A variety of art supplies such as pencils, textas, crayons, paint and brushes
- A mirror
- Scissors
- Glue
- 'What Makes Me Unique' completed activity sheet
- A large sheet of paper or card

Task

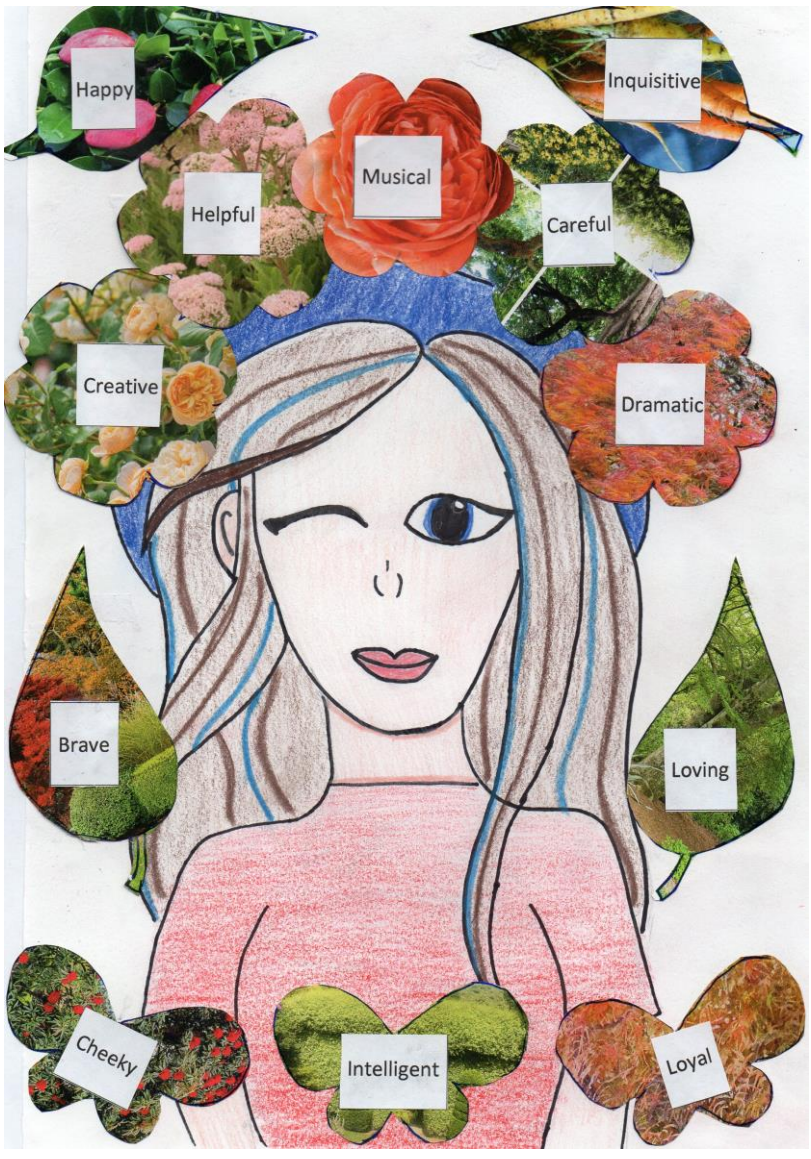
Using a variety of materials, create a self-portrait based on what you see in the mirror. Use the word from the 'What Makes Me Unique' sheet to decorate your portrait, displaying your unique character traits (see example on page 2).

Before you start your drawing, consider your personality traits. Can they be represented visually in your artwork?

- Happy = a big smile
- Cheeky = a wink of the eye
- Musical = musical notes
- Creative = colourful hair
- Strong = big muscles

Method

1. Look at yourself in the mirror. Using a lead pencil, draw the outline of your face including your hair.
2. Now think about words that describe your personality. Can you represent those words in your portrait? Don't worry if you can't because you will include describing words around your portrait.
3. Now sketch in other facial features such as your eyebrows, nose and cheeks. Maybe you have some freckles, a scar or even a chipped tooth.
4. When you are happy with your lead pencil sketch, it's time to add colour and more detail with your chosen art materials.
5. Lastly, cut and paste magazine picture labels around the portrait. Use words from the 'What Makes Me Unique' sheet.



Personality Traits: A Role Play

Lights, Camera, Action! It's time to become someone else for a short time.

After the cool of winter, flowers emerge and burst into bloom to perform for the bees. Using flashcards to role play, students perform (like flowers do) for each other, in order to explore the human spirit.

Materials

- Flash cards table printed and cut individually.
- Best acting skills!

Task

- Students pair up, receive one flash card and keep the personality trait written on it a secret from other groups.
- Students prepare a short role play, based on the personality trait. Students can perform with or without dialogue (mime).
- Student pairs then perform their role plays. When finished, other groups guess the personality trait they performed. Display personality trait flash cards for future reference.

Brave	Helpful
Resilient	Caring
Strong	Positive
Happy	Loyal
Introverted	Extroverted
Sensitive	Cautious
Hopeful	Organised
Calm	Generous

Plants

Did you know that plants, like people, come from all over the world? Let's discover the origin of our food!

Find activity sheets on the next pages.

Key words

Origin, cultivate, native, vegetable, fruit, continent, region.

Investigate

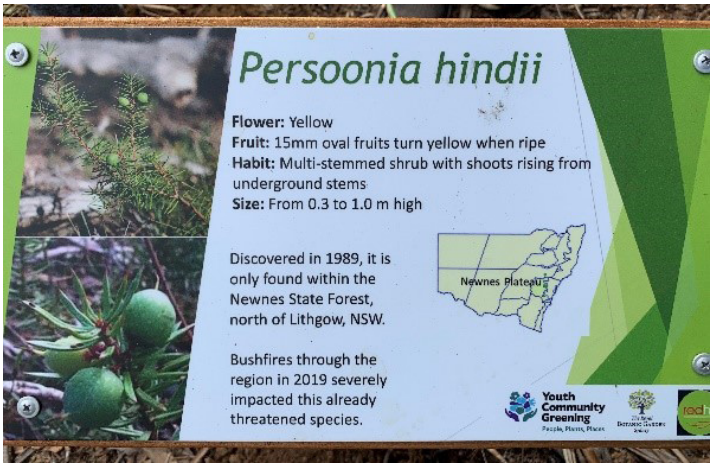
Learn about the origins of the edible **Plants and the Parts We Eat** with the activity sheet. As a class, complete this matching game to test your knowledge!

Then, categorise plants as either fruits or vegetables with this sorting game.

Build your knowledge by watching the Bush Tucker Gardens for Beginners.

Plan

As a whole class, plan to make signage that shares knowledge about plants that are/will be growing in the garden. Example:



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Take action

Share the knowledge! Students share their research with others before designing their signs in PowerPoint or similar programs. Use the activity sheet, **Knowledge Sharing: Let's Create Some Signs!**

Monitor

Students proofread their draft signs to ensure all relevant information is included.

Design challenge: If your sign is for an outdoor garden, how will it endure all weather conditions?

Celebrate

It's time to publish your sign! Decide on creative ways to display the signs in the garden.

Show and tell your buddy class about plant origins! Share the project outcomes in the school newsletter or on the school's social media.

Plants and the Parts We Eat

Plants give us vegetables, fruits, seeds, nuts, cereals and pulses. They also give us coffee, tea, sugar, oil and spices. But which parts of the plant are we actually eating?

Materials

- Pens/pencils.
- A copy of pages 2–4 for everyone.

Task

- In this activity, we'll identify the parts of plants that we eat by playing a sorting game and completing a table. First, let's brainstorm what we know about edible plant parts.

Think...

In the box below, record as many edible plants as you can and list the parts that you eat. You have 5 minutes.

Pair...

Find a partner, compare and combine your lists above. Record new or different answers in the box below.

Square...

Find another pair, compare and combine your lists again. Record new words in the box below.

Share...

Bring this activity sheet to share with the whole class. Record new words you hear from other 'squares'. The lists will be needed in the following activities..

What do you prefer to eat – sweet, juicy fruit or savory, filling vegetables?

Let's identify what you're actually eating by naming some foods and listing them in the correct column.

Fruit	Stem	Root	Leaf	Flower	Seed
e.g. tomato	e.g. celery	e.g. carrot	e.g. lettuce	e.g. broccoli	e.g. coffee

Knowledge Sharing: Let's create some signs!

Traditionally, knowledge was shared through stories, songs, dance and paintings. Today we also use books, internet, television and radio to communicate messages.

In this activity, you're going to research, plan and then create signs so you can share information about the plants that are found growing in your garden.

Materials

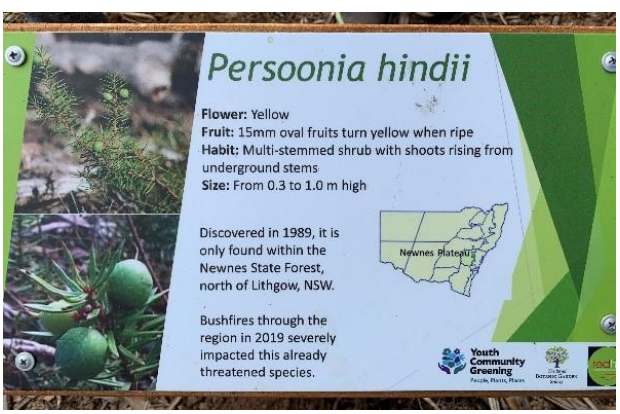
- Pencil/Pen.
- Blank paper.
- Computers with PowerPoint, Canva, Microsoft Publisher or Word.
- Printer and laminator (or have professionally printed).

Task

- Teacher allocates to students pairs one fruit/vegetable that will be grown in the garden. Students then plan, research and create signage.

Instructions

1. Show the students an example of a sign such as the ones below and discuss the layout and features.



2. In pairs, students research sign designs and layouts, record ideas and information to include in their signs. Use this table as a checklist for planning the signage content:

Botanical name	Country/region of origin	Fruit or vegetable?	Growing requirements
Common name	Labelled map of origin	Illustration/photo	Anything else you'd like to add

3. Using their research, students create signs in PowerPoint.
Before you start: Make sure you know where your photos or pictures are saved so you can get easy access to them.

Open PowerPoint and select *Blank Presentation.*

1. Select *layout* and choose the layout you like for your slide. Explore a few of the options and choose one that provides a balance of image and text.
2. Insert text and images into the slide. At this stage, PowerPoint will start to offer some design options for you to choose.
3. Ensure your text is arranged under clear headings that are taken from your checklist. You may like to make the headings in **bold.**
4. Continue to arrange your content in different ways until you get the design that best presents your research. Don't forget to save!
5. Check spelling and layout by sharing the draft with a friend, teacher or expert eyes e.g. your school Principal.

4. Printing and Presentation
Possible ways of creating and sharing your signs:

- Print, laminate and staple the signs together to make a flip book. Leave the flip book in the garden (perhaps in a sealed box) for people to view.
- Use a QR Code generator and print that on a sign. Visitors can scan the QR code for a link to a digital copy of the signs.
- Print the signs professionally on a weather-proof material like corflute. Attach stakes and display in the garden beds.

Places

Compost is like food for the planet. Let's make compost for a healthier future!

Find activity sheets on the next pages.

Key words

Biodegradable, compost, organic, carbon, nitrogen, decompose, nutrients, aerobic, anaerobic.

Investigate

What does 'biodegradable' mean? Students categorise a variety of materials into biodegradable and non-biodegradable with the **Is It Biodegradable?** activity sheet.

Watch the video, The Importance of Composting:

Display the Compost MindMap on your class IWB to prompt and record disussion on composting before exploring the concept further with the **Background Reading for Teachers.**

Plan

As a class or in groups, use the **Composting is Great for the Planet** activity sheet and prepare arguments to persuade your Principal to allow composting at school. Write a persuasive text, create a short film or something else to present your arguments.

Take action

Once you have permission and support from the school, set up a composting system in your school! Learn how to with the **Easy Composting Poster.**

Monitor

To keep your compost thriving, watch the video Tips for a Healthy Compost:

Appoint two students as compost monitors to regularly check and ensure the compost is healthy and functioning correctly.

Celebrate

To create awareness about the importance of composting, use the **Compost Pledge** activity sheet to creatively display on cardboard or paper.

Photograph students holding their pledge. Display on school social media, in the newsletter or create a pledge display wall.

Is it Biodegradable?

'Use it up, wear it out, make it do, or do without' **– New England proverb**

We use resources that come from the Earth all the time. From the clothes we wear to the food in our lunchbox and the house we call home, they all have soon components that came from the Earth's resources. But what happens when we no longer have a need for them? In this activity, students sort common household items to explore consumer choices.

What does 'Biodegradable' mean?

Some materials such as fruit waste, wood or paper are biodegradable. That means they decompose or break down over time and don't become pollution. Non-biodegradable materials such as glass, plastic and Styrofoam do not decompose and end up becoming pollution. Partially-biodegradable materials are a composite of both biodegradable and non-biodegradable parts e.g. a pair of jeans made from cotton and spandex.

Materials

Teacher and students collect examples of biodegradable and non-biodegradable items to share and discuss.
Perhaps invite everyone to bring one item from home, from their school bag or choose an item in the classroom. Have a look in the class bin or recycling. Some suggested items:

- Fruit or a sandwich
- 100% natural fibre from the art storeroom
- Packaging for food
- Pencils, crayons, pens and paints
- School uniform e.g. a hat or jumper (check the label)

Task

1. Sit in a circle and look at the items together. Pass them around and feel them with your hands. Discuss whether these items feel natural or synthetic and name the materials they are made from e.g. plastic, fibre, cellulose (paper).
2. Now, sort the items into three piles; either **Biodegradable**, **Non-Biodegradable** or **Partially-Biodegradable**. Use two hula hoops that intersect to create a life-size Venn diagram. The intersected area represents Partially-Biodegradable items. Place all of the items into the correct part of the Venn diagram.
3. To record your discoveries, draw the hoops and items into your school books as a Venn Diagram.
4. Next, identify the items from your collection that can be recycled into something new at the end of their usefulness. Biodegradable items can be 'recycled' through composting, but what can the other items be recycled into? Make a list of ideas in your school books.
5. Lastly, discuss this big question as a class: 'Is it okay to consume materials if they can't be recycled after we use them once?'

What is Composting?

Did you know, that in just one teaspoon of healthy compost there are more living organisms than there are humans on the planet? Now that's a lot of life!

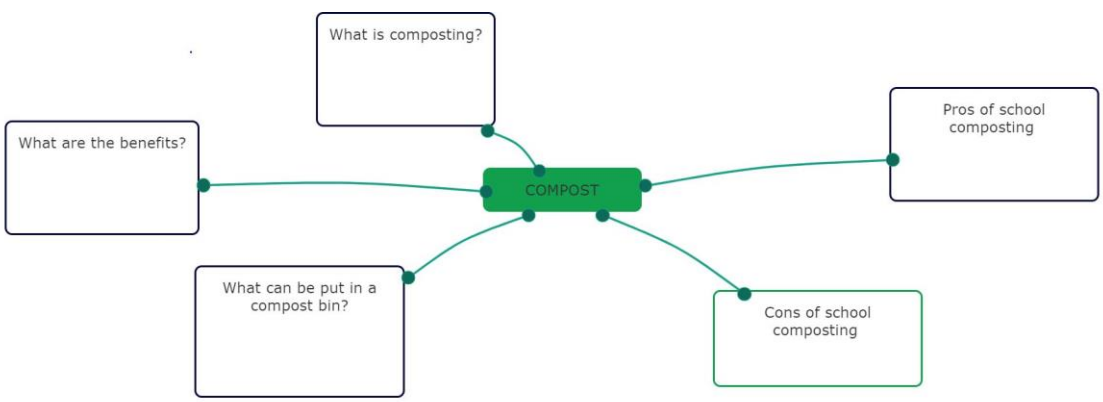
When we send our biodegradable materials to landfill, we waste valuable nutrients. Composting is a great way to 'recycle' biodegradable materials and give back to the soil.

Task

Display the Compost MindMap (from BookWidget) on your class IWB to prompt and record disussion on composting. Use the Compost MindMap responses to keep the discussion going.

Use these headings to grow the MindMap:

- What are the benefits of composting?
- What can we put in the compost bin?
- What does compost look like?
- What can we use compost for?
- What are the pro and cons of setting up a composting system at school?



Background Reading for Teachers

What is composting?

Composting is the process of combining biodegradable materials such as fruit and vegetable scraps, shredded paper and cardboard, natural fibres, straw and leaves to make nutrient-rich compost. We call these materials greens and browns (green - nitrogen and brown – carbon). When combined at a ratio of approximately 50/50 with the addition of moisture and oxygen, decomposition takes place.

What are the benefits of composting?

- Reduce items going to landfill
- Reduce carbon dioxide and methane gas release into the atmosphere
- Make rich, alive compost (soil) for gardening purposes
- Increase our garden soil's ability to retain moisture – less watering will be required
- Provide nutrients for plants – no need for additional fertilisers
- Support healthy plant growth and thereby reduce plant pest and disease
- Improve soil structure to reduce runoff - help stop erosion and pollution of our waterways

What can we put in the compost bin?

- Fruit and vegetable scraps
- Shredded paper and cardboard
- Weeds (without seeds)
- Crushed eggshells
- Tea bags
- Grass clippings
- Leaves
- Straw
- Natural fibres e.g. cotton string

What does compost look like?

When the biodegradable materials decompose, the finished product looks like dark soil. There shouldn't be any sign of the initial content and it will smell earthy.

What can we use compost for?

- Making potting mix
- Improving garden soil
- Plant fertiliser
- Rehabilitate degraded soils and farmland
- Save money because you don't need to purchase fertilisers and chemicals

What are the pro and cons of setting up a composting system at school?

Pros

- Students learn how to look after compost
- Help the environment by making use of fruit and vegetable scraps which are so common in schools
- Compost is beneficial for the garden and plants – they will look healthier
- Compost is a good fertiliser for plants – won't need to buy fertilisers
- Saves money as school currently pays for waste removal
- Reduces landfill in your local area
- Learn about what is and what isn't compostable

Cons

- It might smell if we don't look after it
- It might attract flies or rodents if it's left uncovered
- It takes time to look after a composting system
- People might not like looking at it

Composting is Great for the Planet

'Be gentle with the Earth' **– Dalai Lama**

Composting reduces landfill and helps make soil fertile. It's time to start thinking about your letter to your school Principal. Your role is to persuade the Principal to support a composting system at school. Remember, keep it positive and back up your arguments with facts.

Materials

- A copy of this activity sheet for everyone

Task

- Plan your persuasive text ideas with a draft, using the template on pages 2–3.
- You'll need ideas that will convince your audience that composting is great for the planet. Use the 'Pros' list from the Compost MindMap to help gather your ideas.
- Expand your ideas with strong arguments, using the template on pages 4–5.

Introduction – What are you writing to the Principal about? What do you believe?

Main idea – describe the compost system you want

Supporting reasons and evidence

Concluding statement

Organise your arguments for maximum impact

It's now time to expand your ideas into strong arguments. Remember, to persuade your Principal to allow you to set up a composting system, you need to have logical arguments backed up with facts.

You need to tell your Principal:

- What are your compost plans? Include detailed descriptions or even a drawing
- Why you want to have compost at school
- What the benefits will be to the whole school?

Make sure you include:

- Your reasons for thinking the way you do
- How you feel about compost
- Evidence for the pros of compost

Draft your persuasive arguments below:

Argument 1

Evidence

Argument 2

Evidence

Argument 3

Evidence

EASY COMPOSTING

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How to use compost

Use compost as seed-raising mix, fertiliser or mulch (apply up to twice a year on natives).

What can you compost

Organic waste, anything once living such as fruit and vegetable scraps, newspapers, grass clippings, weeds, tea leaves, coffee grounds, egg shells, old potting mix, dead flowers, human and animal hair.

HINT: Avoid weeds with bulbs, seeds, runners. Avoid meat or dairy products in your compost.

4 easy steps to great compost

1 Choosing the site

Look for a site with good drainage and summer shade.

2 Compost ingredients

You will need:

- 1 part "green or wet" nitrogen rich organic waste, anything once living such as fruit and vegetable scraps, green garden vegetation such as fresh grass clippings, green leaves, weeds and manure

- 2 parts "Brown or Dry" carbon rich garden vegetation such as dry leaves, woody twigs, paper and straw
- some water
- add some completed compost or worm castings to introduce composting micro-organisms.

HINT:
✓ Use the lawn mower to chop up coarse garden prunings.
✓ Keep a bucket with a well-sealed lid in the kitchen to collect food scraps.

Why compost?

Compost is natural and inexpensive and is good for the environment. By turning food scraps and garden vegetation into compost you can:

- **improve** soil quality and garden vitality – we often call this feeding "The Big Hungry Beast", as soil needs food too!
- **conserve** water,
- **recycle** valuable nutrients and reduce the use of artificial fertilisers,
- **prevent** greenhouse gas emissions and landfill impacts from wasted food and garden vegetation.

3 Layering

To build compost, start with a thick layer (15 cm) of twigs or coarse mulch for drainage. Then follow the A, B, C steps and repeat to build a heap layer upon layer.

A. Thin layer of kitchen scraps and green garden vegetation
B. Cover with a layer of brown garden vegetation covering all kitchen scraps
C. Moisten well

Repeat A,B,C.

HINT: Aways cover food scraps with a layer of twice as much brown ingredients to reduce flies, insects and odours.

4 Maintaining your compost

Add air to the compost so it doesn't smell by turning it with a garden fork weekly or by placing garden stakes or pipes through the heap to allow air in.

HINT: Cover your heap so that it is just moist, not wet. If it is wet or saturated mix more dry brown material through it and turn.

Did you know?

- About half of what we throw into the garbage bin is food and garden waste.
- These materials can be used to make compost to benefit your garden.
- 1 teaspoon of compost contains over 1 million living things to help your garden.

The easy compost fix-it guide

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As composting is a natural process,
it doesn't take much to work out the problem.
Some solutions are listed below.

Smelly compost?

If it gets too wet or if there is not enough air in the heap, your compost can smell. A common cause is having too much food and not enough dry ingredients in your compost.

Fix it!

- ✓ Fork in dry leaves or garden mulch.
- ✓ Add garden lime, dolomite or woodfire ash to the heap to reduce acidity.
- ✓ Turn the compost to add air.
- ✓ Combine nitrogen-rich ingredients with sawdust or shredded newspaper before adding to the heap.
- ✓ Give your compost heap a 'floor' of planks to ensure good drainage.

Unwelcome visitors?

Ants, cockroaches, mice or rats can sometimes make your compost their home.

Fix it!

- ✓ Always cover food with a layer of garden vegetation or soil – then cover heap with underfelt or hessian.
- ✓ Turn the compost to discourage ants and cockroaches.
- ✓ Fine wire under the compost bin or heap helps keep out mice and rats.
- ✓ Avoid placing dairy products, meat and seafood in the compost.

Compost slow to mature?

A slow composting system can mean that the compost is not hot enough, or there may not be enough air or water.

Fix it!

- ✓ Add nitrogen-rich material, such as kitchen scraps or green garden vegetation.
- ✓ Turn the heap and add water.
- ✓ Cover the compost with insulating material in winter if it gets too cold.

The Big Hungry Beast

Composting is part of a healthy soil lifecycle!

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For more information

Join our Community Greening NSW Facebook group and ask the community gardeners for their tips

https://tinyurl.com/y5n975ck

Contact

Community Greening team on
community.greening@bgcp.nsw.gov.au

www.rbgsyd.nsw.gov.au

Make a Compost Pledge

'The future depends on what you do today' – Mahatma Gandhi.

Are you ready be the positive change that makes a difference?

Materials

- Pieces of re-used cardboard or paper.
- Examples of pledges (do a Google image search).
- Coloured pencils, pens, textas.

Task

- A pledge is something you promise to do. What will you promise to do, to create awareness about the importance of composting and caring for the environment?
- Spend a few minutes thinking: What you can I do to create awareness of the importance of composting and caring for the environment?
- Write or choose a pledge on page 2 that you can commit to - make sure it is one you really care about!
- Declare your pledge by drawing it, writing it and making a display wall in the classroom.
- Photograph yourself and other students holding their pledges to publish on the school social media (and the newsletter). Is Earth Hour, World Environment Day or Compost Day coming up? Use your pledges at a special assembly or make a speech.

I pledge to compost my fruit and vegetable scraps

I pledge to reduce my packaging and textile waste

I pledge to care for the environment by composting

I pledge to let people know about the importance of composting

I pledge to look after the compost bin