

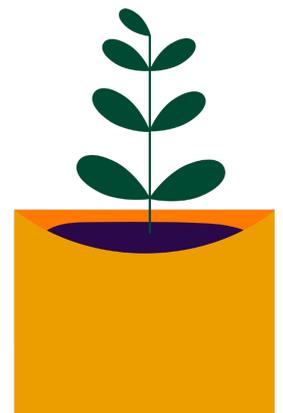
Peace Among the Plants

Year 5 – Health and Physical Education,
Design and Technologies

Year 6 – Health and Physical Education,
Design and Technologies

Year 7 – Health and Physical Education,
Design and Technologies

Year 8 – Health and Physical Education,
Design and Technologies



(HPE; Yrs 5&6, ACPPS058)

Investigate the role of preventive health in promoting and maintaining health, safety and wellbeing for individuals and their communities

(HPE; Yrs 7&8, ACPPS077)

Plan and use health practices, behaviours and resources to enhance health, safety and wellbeing of their communities

(Design and Technologies; Yrs 5&6, ACTDEK021)

Investigate how and why food and fibre are produced in managed environments and prepared to enable people to grow and be healthy

(Design and Technologies; Yrs 5&6, ACTDEK023)

Investigate characteristics and properties of a range of materials, systems, components, tools and equipment and evaluate the impact of their use

(Design and Technologies; Yrs 7&8, ACTDEK032)

Analyse how food and fibre are produced when designing managed environments and how these can become more sustainable

(Design and Technologies; Yrs 7&8, ACTDEK034)

Develop appropriate questions to guide an inquiry about people, events, developments, places, systems and challenges

Peace Among the Plants

Plants prove to be positive for people

Just as the song says, you never can be sure what each day will bring – but a little meditative calm always helps. Plants, with their calm green mood-boosting effect on all of us, are a perfect way to peace out.

Equipment:

A basket or tray with a selection of fresh foods to explore for their textures as plants – e.g. waxy cabbage leaves, ruffly kale, delicate little blueberries, onion rings to pop apart, bumpy mandarin or avocado skins and more. The choice is yours as depends on what you have access to – but should include a mix of familiar edibles plus less-familiar herbs and ready-to-plant flowers such as pansies or calendula. Avoid anything that is an irritant – you can always check with the nursery if purchasing punnets.

A tray of growing plants, such as a few punnets of herbs or leafy greens, ready to plant. (Some of these you will plant out in the school grounds or use in the terrarium or kokedama.)

[Optional] a potato per student and cuttings of softwood shrubs such as thornless roses or sedum

Materials for making the kokedama (see page 5) OR a terrarium (see page 7)

Duration:

20 minutes introduction, plus time to make a kokedama or a terrarium

Location:

The classroom or independent study space

Notes:

Getting started



👁 Watch / 👂 Listen to **Nomcast The Good Mood Food Special Part 3 – Mindfulness and Rest**

? Discuss:

- Why do you think the studies into zoo animals showed that they were happier in surroundings that looked a lot like the habitat they evolved in?
- Do you think that the thousands of years of evolution links an animal to its place in ways we can't see, such as behaviour and wellbeing?
- Are humans the same or not? (Could you live in a concrete box all day, every day, forever, without access to the out of doors?)
- List the benefits you agree plants and growing environments have for people. How does it left your feelings and lead to health and well-being?
- What does this mean for the design of cities and living spaces?

Plant action

- Share the greenery you have gathered with the class, including handfuls of grasses and shrub leaves, punnets of chives or spring onions feeling like long grass, and punnets or trays of leafy greens and nursery plants ready to plant out.
- Get out the basket or tray of vegetables such as ruffly kale, big waxy cabbage leaves, bumpy or fingerling potatoes, dainty little berries like raspberries and blueberries, hefty orange sweetpotato, onion rings to pop apart.

- Host a sensory exploration of the plants including stroking the leaves, nominating which part of the plant the fruit, leaves, nuts and seeds come from (here's a fun one: capers are flower buds, so are cloves – you could add a few spices like this if you like.) In as structured or unstructured way as is appropriate, hold a sensory exploration of the plants.
- Prompt students to explore everything focusing on its growing form and its function as a plant (e.g. cabbage leaves are large to maximise chlorophyll production and stiff to grow over winter in cold temperatures; blueberries are a delicate bag of sweet juices and the seeds are inside – they tempt animals to eat them and spread the seeds in their manure.)
- Regardless of the age of students, encourage hands-on – gently with plants you are going to use in the next activities.

Caring for nature

- Explain that a plant has needs (get students to tell you what they are: air, water, light and some sort of growing medium to support the roots).

Optional: potato planting

- If time permits, provide students with the materials needed to strike (propagate) a cutting in a potato.
- Instructions are here:
 - ◇ Gardening Knowhow – rose cuttings in a potato: <https://www.gardeningknowhow.com/ornamental/flowers/roses/rose-cuttings-in-potato.htm>
- Tip: try it with a sedum instead of a rose if you only have thorny roses available – thorns would be a problem in class! Sedum have softer stems than roses so you would need to use the tip of a sharp pencil to make a hole in the potato first. Otherwise, the process is the same.



Build a world

- Introduce the kokedama or the terrarium – whichever you are planning to build.
- Explore the idea that we are caring for the plants by making the perfect place for each one.
- Introduce the plants you are going to use in the terrarium or kokedama. You've got plenty of choice here and the suggestions below are just that – suggestions.
- Walk through the instructions with students, and ask them to visualise or even draw out some of their ideas of what they are aiming for. A couple of useful videos are provided below to help you, and students, to explore the process as well as what is possible!

Reflect

- After building your terrarium or kokedama, get students to explore and research one or more of the ways plants in your environment, including those we live with and those we eat! can affect their outlook on the world and help build a positive outlook on life (a good mood).

Teacher Resources

- Gardening Knowhow – Sprout a plant in a potato: <https://www.gardeningknowhow.com/ornamental/flowers/roses/rose-cuttings-in-potato.htm>

Kokedama

- Domain – How to Make Kokedama (duration 1:25): <https://youtu.be/bdmjZzWbJtI>
- Speak Maori – How to Make a Kokedama Hanging Garden (duration: 4:19): <https://youtu.be/mizxywn1Qok>
- Gardening Australia – How to make a kokedama (factsheet and video, duration 4:18): <https://www.abc.net.au/gardening/factsheets/kokedama/9438078>
- Royal Horticultural Society (UK) – How to Make a Kokedama (duration 2:45): <https://youtu.be/as7Cd00cFDs>

Terrarium

- SerpaDesign – Making a Closed Bottle Terrarium – Closed Terrarium Basics (duration 9:00): <https://youtu.be/7Lg4tzkHgVo>
- SerpaDesign – Satisfying and Relaxing Terrarium process (duration 31:30): <https://youtu.be/KeYQzvB6mrA>
- The Spruce – How to Make Terrariums: <https://www.thespruce.com/how-to-make-terrariums-848007>

How to make a Kokedama

Plants in your place are great but space can be hard to find – so hang those babies from the ceiling or the roof with a kokedama!

Kokedama is a Japanese word that means 'moss pot' and in Japan the roots are traditionally wrapped in a sheet of moss. You can use hessian and string as well – moss can be hard to grow in the dry Australian climate.

The trick to a kokedama is to keep it moist. Hang it in a shady space or a damp room like a bathroom, use good materials for the soil, and spray it often or soak it for 2–3 minutes in water so it doesn't dry out.



You will need:

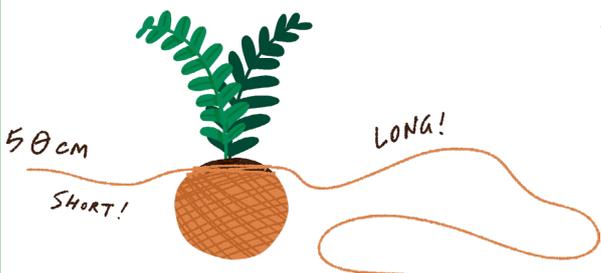
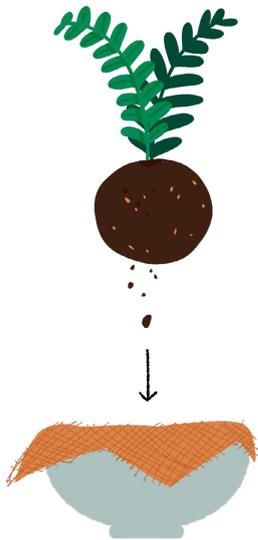
- a bucket
- garden clay
- seed-raising mix or bonsai potting mix
- scissors and a trowel
- string or garden twine
- hessian sack cloth or paperbark sheets
- seaweed solution such as Seasol
- two bowls
- water

Plants for kokedama

- moss
- spider plants and similar houseplants
- ferns such as maidenhair ferns
- micro-herbs such as thyme and coriander

What to do:

- Fill a bowl with water and add a few drops of seaweed solution.
- Take the plant out of its pot, shake off most of the soil from its roots and place it in the seaweed water to soak while you do the next steps.
- Cut two squares of hessian sack cloth that are large enough to wrap a ball about the size of a baseball. Slightly too large is better than slightly too small.
- Place them together so they match and cut off the corners to make a curved-corner shape.
- (If using the paperback sheets, it will be more tricky to do but first soak the sheets in water for an hour to make them soft. The rest of the process is the same.)
- Drape the double hessian over one of the bowls, centred on the bowl.
- In the bucket, mix equal amounts of potting mix and garden clay. Add a small amount of water and mix it with the trowel. Keep adding water and mixing until it is very sticky, squeeze it with your hands into a ball, and press it hard to stick it together.
- Create a ball about the size of a baseball.
- Use your hands to gently break the ball apart into two halves, like two halves of a walnut. Ask a friend to drape the roots of the plant in the centre of one of the halves with the leaves outside the ball and all the roots on the broken open face of the ball.
- Place the other half back on and squeeze and turn the ball, squeezing gently and turning until it holds its shape around the plant roots. All the leaves should be outside of the ball and all of the roots should be inside.
- Place the ball of soil and clay carefully in the bowl, in the centre of the hessian.
- Bring the hessian wrapping up around the ball to completely cover the sides up to the neck of the plant.
- Take a long piece of string (at least as long as two times the length of both of your arms spread wide), and measure about 50cm from one end of it. At that 50cm point, place the string around the neck of the plant and wrap around the neck, holding in the hessian. Tie it off – make sure this is snug but not too tight – this is what your plant will hang from.
- Take the long tail and wrap it around and around the ball at various angles to create a snug ball around the roots. If you run out of string but need to keep wrapping, you can add another long piece – even a piece of string of a different colour to add decoration. If you like, tuck decorations into the outer layers of the twine, such as beads and buttons. Poke the end of the twine in and tie it to a previous layer.
- Dunk the kokedama for 2–3 minutes in the bowl of seaweed water to thoroughly wet the roots. Drain the extra water off.
- Hang the kokedama by the 50cm long piece of string. It will hang at an angle.
- Spray it with water or dunk it for 2–3 minutes in a bucket of water every few days. Don't let it dry out completely!



How to make a Terrarium

The cool thing about a terrarium is that when you get it right, you have made a mini-ecosystem. It should generate enough water (through transpiration from the plants) to keep the interior moist. Occasionally you will need to add some water, but not often. If the terrarium is entirely closed you might not need to add water for months!

There is more science in getting a terrarium balanced – read up using some of the resources in this unit. Half of the fun is tinkering with the terrarium to get it working optimally.

Definitely a moment for relaxing mental meditation as you play with plants and soil. Ahh!

You will need:

a glass container with a wide opening, such as a goldfish bowl or a candy jar without a lid

gravel or small pebbles such as beach pebbles

a large spoon and a pair of tweezers or tiny tongs

activated charcoal

moss or shredded wet paperbark

sterile potting mix

tiny plants

bits of bark, moss, sea glass, or shells (optional)

a spray bottle with plain water in it

Plants for terrariums

tiny spider plants and similar houseplants

tiny ferns such as maidenhair ferns

micro-herbs such as thyme and coriander

succulents and sedums

small strawberry plants

plus little rocks, twigs and other natural elements

What to do:

- Clean the glass container or put it through the dishwasher. Make sure it is clean and dry when you start.
- Place a layer of gravel over the bottom of the container. (You can lie it on its side so the open side is horizontal if you like.)
- This gravel layer allows for drainage (so the plant roots are not sitting in water.) About 5cm is a great depth to aim for roughly.
- Use the spoon to place a layer of activated charcoal on top of the gravel layer. This helps soak up extra moisture and controls any smell.
- Add moss or shredded wet paperbark in a thin barrier layer over the charcoal so that the soil does not wash down into the gravel.
- Use the spoon again to add a layer of sterile potting mix on top of the barrier layer.
- Add enough potting mix to allow for the roots of the plants you want to grow in the terrarium. (They must be very small plants.)
- Using the spoon and a pair of tweezers or small tongs, place the plants into the potting mix and design the terrarium to your satisfaction, using the back of the spoon to gently press the soil around plant roots. (Or use a cork on the end of a skewer if the neck of the bottle is a bit smaller.)
- Arrange sea glass, pieces of bark, shells and other decorations amongst your plants.
- Spray water into the terrarium and let it settle for a day or two before spraying again with water.

