

Grow Your Cuttings

What you will need

Secateurs

Clean recycled plant pots/containers

Potting mix

Container with water

Growth (rooting) powder

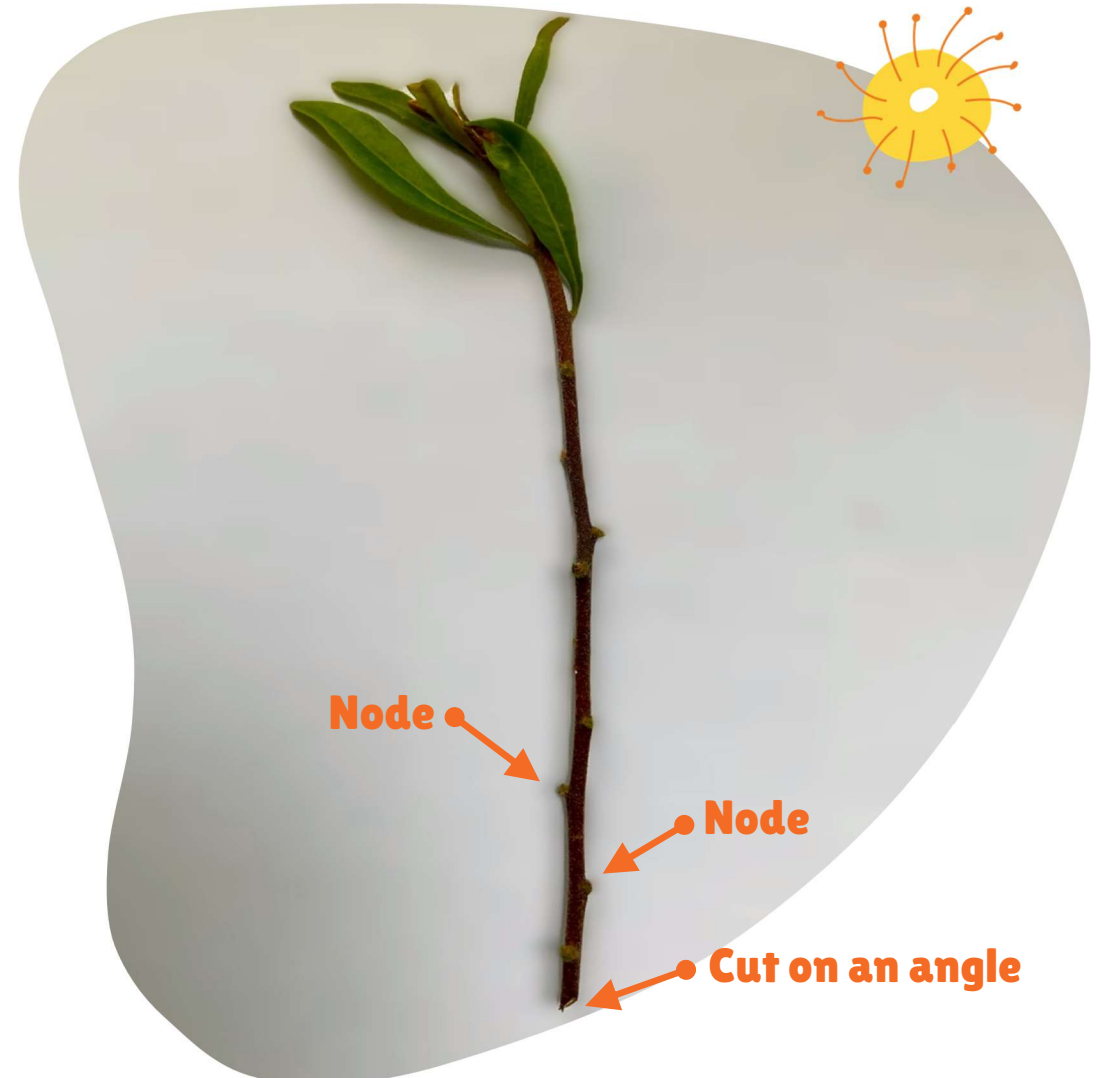
Spray bottle with water

Gardening gloves



What to do

1. Fill your pot or container with potting mix.
2. Take your cutting and cut the base of the stem at an angle, just below one of the nodes (see picture). The nodes are the little bumps that you can find along the stem and are where leaves usually grow from. The cutting should be about 10cm long.
3. Remove almost all the leaves, plus any flowers, from the cutting - keep a few leaves at the top (see picture).
4. Dip the cut end of the stem into water and then into the root hormone powder. Shake off any excess powder.
5. Make a small hole in the soil with a pencil or chopstick.
6. Place the cutting into the hole and push the soil gently around the cutting to hold it in place.
7. You can plant multiple cuttings close together, about 1.5 to 2 cm apart.
8. Label your cuttings with the date and plant species.
9. Water your cuttings using a spray bottle and place them somewhere warm with filtered sunlight. Keep the soil moist but not wet.



Grow Your Cuttings – Teacher Resource

Suggested Lesson time – 1 lesson, approximately 50 minutes.

This lesson will teach students how to propagate plants from cuttings and understand the basic principles of plant growth. It should be combined with the 'Cutting collection' worksheet. It can also be combined with any other worksheet and lessons in the Habitat Warriors program (for example, 'Handmade Seed Pots').

At the end of this lesson students will:

- Gain a basic understanding and practical skills in plant propagation, specifically through the use of cuttings.
- Understand the environmental benefits of propagating native plants, including supporting local biodiversity and ecosystem restoration.

This lesson can be made suitable for all primary levels – suggestions on how you could 'level up' the lesson are also given, while links to the Victorian Curriculum can provide additional ideas.

Basic Lesson Outline

Explain what plant cuttings are and why we use them to grow new plants (create new plants, preserve plant varieties, save money). Discuss the basic needs of plants, such as water, sunlight, and nutrients, and how these apply to growing cuttings. Encourage students to share any prior knowledge or experiences they have with growing plants.

Provide students with the 'Growing Your Cuttings' worksheet. Demonstrate how to propagate a cutting. Show examples of nodes on plant stems and explain their importance. Explain the safe use of secateurs (i.e. treat them like a pair of scissors, keep fingers away from the cutting area to avoid accidents).

Class discussion

- Why is it important to be able to grow new native plants from cuttings?
- Why might we choose to propagate plants from cuttings instead of growing them from seeds?
- Name three things (e.g. temperature, light, humidity) that affect the success of plant propagation.
- Why is it important to sterilise the potting mix before planting cuttings?
- How can you care for our cuttings to ensure it becomes a strong, healthy plants?
- Why do you think native plants are important for our local environment?
- How does propagating native plants contribute to the health of our local environment?
- What are some benefits we get from having a diverse range of native plants in our natural environment?

Lesson Level Up

There are multiple ways to extend and expand this lesson to make it more comprehensive and/or introduce more complex topics for older children/year levels. For example:

Expand the Science component:

- Use different potting mixes (e.g., perlite, vermiculite, sand, native seed potting mix) and ratios to propagate native plant cuttings. Record the success rates and discuss the advantages and disadvantages of each medium.
- Set up experiments to test different environmental conditions (light, temperature, humidity) on the growth of native plant cuttings. Write a report summarising the results and discuss the optimal conditions for growth.
- Monitor the growth of native plant cuttings from initial propagation to root development and transplanting. Create a timeline/ graph to show the propagation process for different species and present findings to the class.

Expand the English component:

- Research a specific native plant species that was propagated, or a native plant species which grows locally. Write a report on the plant's characteristics, habitat and ecological significance.

The complexity of this section could be adjusted depending on year level.

Detailed Curriculum Links

Science			
	Foundation – Level 2	Level 3 – Level 4	Level 5 – Level 6
Science Understanding			
Science as a human endeavour	People use science in their daily lives.	Science knowledge helps people to understand the effects of their actions.	Scientific understandings, discoveries and inventions are used to inform personal and community decisions and to solve problems that directly affect people's lives.
Biological sciences	Living things have a variety of external features and live in different places where their basic needs, including food, water and shelter, are met.	Living things can be grouped on the basis of observable features and can be distinguished from non-living things.	Living things have structural features and adaptations that help them to survive in their environment
Science Inquiry Skills			
Questioning and Predicting	Respond to and pose questions, and make predictions about familiar objects and events.	With guidance, identify questions in familiar contexts that can be investigated scientifically and predict what might happen based on prior knowledge.	With guidance, pose questions to clarify practical problems or inform a scientific investigation, and predict what the findings of an investigation might be based on previous experiences or general rules.

Science			
	Foundation – Level 2	Level 3 – Level 4	Level 5 – Level 6
Planning and conducting	Participate in guided investigations, including making observations using the senses, to explore and answer questions.	Suggest ways to plan and conduct investigations to find answers to questions including consideration of the elements of fair tests.	With guidance, plan appropriate investigation types to answer questions or solve problems and use equipment, technologies and materials safely, identifying potential risks.
		Safely use appropriate materials, tools, equipment and technologies.	
Recording and processing	Use informal measurements in the collection and recording of observations.	Use formal measurements in the collection and recording of observations.	Construct and use a range of representations, including tables and graphs, to record, represent and describe observations, patterns or relationships in data.
	Use a range of methods, including drawings and provided tables, to sort information.	Use a range of methods including tables and column graphs to represent data and to identify patterns and trends.	
Analysing and evaluating	Compare observations and predictions with those of others.	Compare results with predictions, suggesting possible reasons for findings.	Compare data with predictions and use as evidence in developing explanations
			Suggest improvements to the methods used to investigate a question or solve a problem.
Communicating	Represent and communicate observations and ideas about changes in objects and events in a variety of ways.	Represent and communicate observations, ideas and findings to show patterns and relationships using formal and informal scientific language.	Communicate ideas and processes using evidence to develop explanations of events and phenomena and to identify simple cause-and-effect relationships.

English

Language

Phonics and Word Knowledge

Literacy

Interpreting, analysing, evaluating

Texts in context