

Draw like a scientist

WALT: Be a scientist and use my observation and recording skills to be able to identify different plants

Pre site visit lesson

Materials needed

- Leaf samples
- Small pieces of paper
- Pencils

Model and practise drawing a plant accurately in class before visiting Te Pourewa or your choice of land. Use a range of plants found in your kura setting to explore a variety of leaf shapes and leaf formations.

You could also use pictures (printed or shown on a screen) to support these observations and prompt discussion about what is seen. Vocabulary to accurately describe what is noticed is a key part of making accurate observations. For example, when describing the leaf, vocabulary such as dark green, smooth, shiny, curved edge, as big as my palm, etc, can be modelled as 'think alouds' by the teacher.

Physical leaf samples in the classroom are best for learners to be able to touch and observe closely. Use these leaves as the starting point for practising accurate drawing (as part of the plant diagram).

Talk about drawing what you actually see and drawing each part to scale. Remind the learners that our brains try to save energy by drawing the 'symbol' we remember that represents a leaf, so we have to use the mantra 'look, look, draw' to get our eyes to see what this leaf actually looks like. We look twice as much as we draw. This helps with accuracy. We could use our fingers and hands to measure the leaf and then guide our drawing on our paper.

Now have learners draw all parts of the plant. Check with a peer about the accuracy of what has been drawn. With teacher support, have the learners offer peer feedback to improve the accuracy of the drawing. Use the success criteria as feedback and feedforward support. Attempt the plant drawing again and then label the parts of the plant. Now give the diagrams titles that reflect the plant type. Display all attempts of the annotated diagrams with some explanation of the improvements made from one attempt to the next.

On-site lesson

Invite the learners to sit (or stand) silently listening to the sounds of the ngāhere and see what is all around them. Guide the learners to use their observation skills (using one plant as a model).

We look carefully at the plant asking, 'What do I see?' (shape, texture, size, colour etc)

Have learners talk about the parts of the plant they can see (talk with a buddy)

Share back as a whole group what the main parts of the plant are

Remind the learners to 'look, look, draw' and why this is important

Break the class into small groups and assign them the plants that they will be drawing. Each learner will now draw what they see from the plant/s in front of them. The adult helpers could prompt by asking questions such as:

What do you notice about how the leaves attach to the stem?

What do you notice about the position of the leaves? Are they close together or further apart?

All learners will label their plant diagram and then check with a peer in their group to ensure they have leaves, stem and roots drawn.

You may optionally choose to refer to the resource page to use the dichotomous key resource sheet to identify the plants being drawn.

This lesson could be followed up back at school with further opportunities to practise scientific diagram making.

Supports for teachers

Viewing this [simple video](#) about scientific drawing could be useful to reinforce the ideas being developed.

[This video](#) discusses 'cartoon' drawing versus more accurate drawings

How to make your own [observation journal video](#)