**ACTIVITY: Collecting kōwhai seeds | Kohikohia ngā kākano kōwhai**

**Activity idea**

In this activity, students search for and collect seeds from local kōwhai trees.

By the end of this activity, students should be able to:

* identify kōwhai trees, seed pods and seeds
* locate and collect kōwhai seeds beneath and around kōwhai trees
* describe their observation of kōwhai seeds in terms of the shape, colour and hardness of the seed pods
* be curious about what they have observed and ask questions about kōwhai trees.

**For teachers**

***Introduction/background***

Kōwhai trees generally flower in late winter to early spring. Seeds are available to collect from beneath trees and from their pods for most of the year.

Initially, students may only notice the seed pods hanging from the kōwhai trees, but after some purposeful searching of the ground near kōwhai trees, careful observers may soon notice the vast number of seeds.

The hunting of seeds, which are quite inconspicuous, can promote curiosity and act as a hook for further learning.

***Kōwhai seeds and safety***

Students can safely handle kōwhai seeds but it’s important to have a safety discussion prior to this activity. Kōwhai seeds are poisonous to humans. The seeds are encased in hard shells –unless they are chewed, they are likely to pass through the digestive system. Humans also need to consume large quantities to be poisoned.

However, it’s safest to collect and observe kōwhai seeds using the senses of sight and touch but not taste.

***What you need***

* An accessible mature kōwhai tree
* Containers or small bags for collection

***What to do***

1. While in the classroom, explain to ākonga that they will be going on a kōwhai seed hunt.
2. Explore their prior understanding and spark curiosity by questioning where the seeds might be found, what size they might be and how – or if – they might be attached to the tree.
3. Provide containers or small bags for collection, storage and later use.
4. Walk to a local kōwhai tree and allow ākonga time to explore, observe and collect.
5. When ākonga have completed their collection, return to the classroom for further questions and/or a class kōrero about what they noticed. Use the questions below to help prompt discussion.

***Questions to deepen student understanding***

* Where did these seeds come from?
* Why do you think the seeds are encased in a long pod?
* Will all these seeds grow into kōwhai trees?
* What happens to the seeds that don't grow into trees?
* Why might some seed pods be longer than others?
* Why do you think the kōwhai tree produces so many seeds?
* What do you think the seeds will need to grow into trees?
* Why might some seeds look different to others?
* How might this kōwhai tree have got here?

***Extension idea***

For full inquiry-based teaching and learning, use this mathematics prompt to consider how many seeds a tree may produce.

This can be targeted from levels 1–4. Count and/or estimate how many seeds are in:

* one pod
* a group of pods
* a small branch
* a large branch
* an entire tree.

***Acknowledgement***

This activity was written by Chloe Stantiall, Silverdale Normal School.