

Task: Te Tiritiria o te Purapura — Spreading Seeds

Approach: One to one

Focus: Plant adaptation

Resources: 3 pictures, bidibid seeds

Kupu: tiritiri = spread hutiwai = bidibid tohetaka = dandelion

Questions / instructions:

Ka kōrerorero tāua me pēhea e tiria ai ētahi momo purapura ki te whenua.

Whakaaturia te pikitia tuatahi: te tohetaka.

In this activity we'll be talking about how different seeds are spread.

Show student picture 1: dandelion.



1. Ki tōu whakaaro ka pēhea te tiritiria o ngā purapura o te tohetaka ki te whenua?

How do you think the dandelion's seeds are helped to spread?

wind 70

Ki te kore te ākongā e whakautu, māu e whakamōhio atu, mā te pupuhi o te hau ngā purapura tohetaka e tiritiria ai.

If necessary tell student that dandelion seeds are spread by the wind.

2. He aha te tino āhua o te purapura tohetaka e pai ai te tiritiria e te hau?

What is special about the way dandelion seeds are made that help them get spread by the wind?

lightness 23

fluffy bits to get caught by wind 9

parachute/umbrella effect for landing 6

3. He aha tētahi āhuatanga pai o te tiri purapura mā te hau?

What might be good about seeds being spread by the wind?

can travel a long way/land in good growth environment 2

other valid, well-explained reason 0

% responses

Whakaaturia te pikitia tuarua: te purapura miro.

Show student picture 2: miro berry.

4. Ki tōu whakaaro ka pēhea nei te tiritiria o ngā purapura miro ki te whenua?

How might the seeds of the miro berry be spread?



eaten and spread in bird or animal droppings 4

eaten by animals/birds 13

by animals/birds 0

Ki te kore te ākongā e whakautu, māu e whakamōhio atu, ka kainga e te manu me ētahi atu kararehe, ā, ka tiritiria mā te tuku tūtae.

If necessary tell student that miro berry seeds are sometimes eaten by birds and other animals and the seeds are spread in the droppings.

5. He aha te tino āhuatanga o te purapura miro e pai ai te tiritiria mā te tūtae manu, tūtae kararehe kē rānei?

What is special about the way berry seeds are made that help them get spread by birds or other animals?

colour to attract bird 2

nice flavour, good food 7

hard seeds that survive being eaten/digested 0

6. He aha tētahi āhuatanga pai o te tiri purapura mā te tūtae manu, tūtae kararehe kē rānei?

What might be good about seeds being spread in bird or other animal droppings?

can travel a long way/land in good growth environment 8

droppings fertilise seeds 2

other valid, well-explained reason 0

% responses

Whakaaturia te pikitia tuatoru: te purapura hutawai.

Show student picture 3: bidibid and packet of bidibid seeds.



7. Nō te whānau o te tipu hutawai ēnei purapura. Ka pēhea nei te tiritiria o ēnei purapura ki te whenua?

These seeds belong to the bidibid family. How do you think bibibid seeds are spread?

caught on moving creatures

6

Ki te kore te ākongā e whakautu, māu e whakamōhio atu, mā te whakapiri atu ki te kiri kararehe, ki te kākahu tangata rānei ngā purapura hutawai e tiritiria ai ki te whenua.

If necessary tell student that the seed clings to animals or clothing.

8. He aha te tino āhuatanga o te purapura hutawai e pai ai te tiritiria mā te whakapiri atu ki te kiri kararehe, ki te kākahu tangata rānei?

What is special about the way bibibid seeds are made that help them get spread by clinging to fur or clothing?

hooks/barbs grab stongly onto fabric/fur (hard to get off)

0

prickles/spikes get into fabric/fur (but relatively easily brushed off)

13

% responses

9. He aha tētahi āhuatanga pai o te tiri purapura mā te whakapiri atu ki te kiri kararehe, ki te kākahu tangata rānei?

What might be good about being spread by clinging to animal fur or clothing?

can travel a long way/land in good growth environment

4

other valid, well-explained reason

2

10. He aha tētahi āhuatanga e kore ai e pai te tiria o te purapura mā te hau, mā te tūtae manu, mā te whakapiri atu rānei ki te kiri kararehe?

What might be not so good about seeds being spread by the wind, in animal droppings or on animal fur?

a lot end up in places where they won't grow well

0

they are a nuisance; end up in places where they are not wanted

4

Total score:

11–16

0

8–10

0

5–7

10

2–4

34

0–1

56

Commentary:

Most students had very limited understanding about how features of seeds help their spread.

% responses