

# Planning pathways using pollination resources

This interactive groups Hub resources into key science and technology concepts. The article Pollination resources provides pedagogical advice and links to the New Zealand Curriculum.



This interactive diagram provides a selection of pathways that allow for differing approaches and starting points using our pollination resources. The aim is to assist educators with their planning of lessons and units of work by providing options that cover multiple science concepts. If using the online version, click on the labels for links to supporting articles, media, data and student materials.

Background image: The University of Waikato Te Whare Wananga o Waikato

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# Transcript

# **Pollination basics**

Pollination is the process that transfers pollen from the male part of a flower to the female part.

**Related articles** 

- Pollination introduction
- Pollination and fertilisation
- Pollination question bank
- Investigating pollination writer insight

#### Related activities

- Investigating pollen processing using evidence
- Pollination three-level reading guide

# Avocado pollination

Avocados have an unusual system of flowering to prevent self-pollination. This can make things difficult for growers.

Related article

• Avocado pollination

Related media

• Avocado research - video





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### **Kiwifruit pollination**

Kiwifruit flowers are insect pollinated, but they are a bit unusual. They don't have nectar to attract insects, and they produce 'fake' pollen.

Related articles

- Kiwifruit pollination problems
- Robots for horticulture
- Combating kiwifruit Psa

### Related media

- Artificial pollination video
- RoboBee video
- Processing pollen interactive



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Related activities

- Investigating pollen processing using evidence
- Pollination three-level reading guide

# Flowers and pollination

All flower parts play a role in reproduction.

**Related articles** 

- Flower parts
- Flowering plants
- Flowering plant life cycles

Related activities

- Plant parts
- Let's look at flowers
- Pass the pollen



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# **Attracting pollinators**

Flowers have many ways to help animals or the wind to pollinate them.

Related article

• Attracting pollinators

Related activities

- Pass the pollen
- Pollination pairs



Neville Gardner

# **Bees and pollination**

Honey bees are the most important pollinators of many cultivated food crops and other flowering plants.

Related articles

- Honey bee heroes
- Bumble bees and pollination
- Bees fun facts
- The Buzz of Bees Connected article



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Related media

- Working with bees video
- Avocado research video

# Native birds as pollinators

Birds are important pollinators of many native plants. Contrary to previous beliefs, if birds are not available to pollinate certain native flowers, insects cannot fill the role.

**Related articles** 

- Attracting pollinators
- Mistletoes and mutualism
- Decline of birds and pollination
- New Zealand bird pollination studies timeline

Related activity

• Pollination pairs



Neville Gardner

### **Pollination experts**

Find out who is working in the field of plant pollination.

### Related articles

- Dr Mark Goodwin
- Professor Dave Kelly
- Jenny Ladley

### Related media

- Artificial pollination video
- Mistletoe research video
- Mistletoe discoveries video

# NZC level 1 and 2 pollination resources

These resources offer an introduction to the science behind pollination.

Related articles:

- Methods of pollination
- Pollinating kiwifruit
- Plant reproduction
- The seed-flower life cycle



Eve Welch, University of Canterbury



University of Waikato



#### Related activities

- Pollination role-plays
- Common foods and plant parts
- Matching seeds and fruits

# Pollination and technology

Many kiwifruit growers use artificial pollination. Innovative technology includes robotics and sensors.

Related articles

• Robots for horticulture

Related media

- Artificial pollination video
- RoboBee video
- Processing pollen interactive

### Related activities



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• Investigating pollen processing using evidence