

Session 2 Sweet as honey

Equipment

FOR THE CLASS

- class science journal
- word wall
- TWLH chart
- team skills chart
- team roles chart
- 1 enlarged copy of 'The honey bee life' (Resource sheet 4)
- video(s) about European honey bees (see 'Preparation')
- *optional*: jars of different-flavoured honey (see 'Preparation')

FOR EACH TEAM

- each team member's science journal
- role wristbands or badges for Director, Manager and Speaker
- 1 copy of 'The honey bee life' (Resource sheet 4) per team member
- poster-sized paper

EXPLORE

Preparation

- Source a video about European honey bees, for example:
 - How bees make honey. See: 'Backyard bees' <http://www.abc.net.au/btn/story/s2968817.htm>
 - Isn't it funny how bees make honey!' <http://splash.abc.net.au/home#!/media/86020/where-does-honey-come-from->
 - The extraordinary behaviour of some of our native bees. See: 'Bee scene' <http://australianmuseum.net.au/bee-scene1>
- Prepare an enlarged copy of 'The honey bee life' (Resource sheet 4).
- *Optional*: Purchase jars of different-flavoured honey collected from different eucalypts, such as Red gum, Ironbark and Yellow box.
- *Optional*: Display 'The honey bee life' (Resource sheet 4) on an interactive whiteboard. Check the Primary**Connections** website to see if an accompanying Interactive Teaching Resource (ITR) has been developed (www.primaryconnections.org.au).

Lesson steps



- 1 Review the previous lesson, focusing on the male and female parts of the flower. Ask students questions, such as:
 - Which parts of the flower are involved in pollination?
 - Eucalypts can't transfer pollen to the stigma themselves. Which insects or animals do you think help pollinate the flowers?
- 2 Show students a video on honey bees collecting nectar and making honey (see 'Preparation'). Review students' ideas on why bees visit flowers.
- 3 Explain to students that most eucalypt flowers in Australia are pollinated by bees. Discuss how Australia has Australian native bees as well as European honey bees that were brought to Australia by settlers nearly 200 years ago.

Optional: Invite students to view and or taste the jars of different-flavoured honey.



4 Ask students questions, such as:

- Why do plants need to be pollinated?
- What does pollinate mean? (Mixing the male and female parts of the flower so the flower can reproduce.)
- Why do bees pollinate flowers?
- What parts of the bee are involved in pollination?
- When does the nectar change into honey?

Record students responses in the class science journal.

Optional: Show the second video of a native bee pollinating a flower (see 'Preparation').

5 Introduce the enlarged copy of 'The honey bee life' (Resource sheet 4). Read through and discuss. Review the purpose and features of a factual text.

6 Explain that students will work in their collaborative learning teams to make poster of the life cycle of the honey bee and include words and phrases to annotate the cycle. Discuss the purpose and features of a poster.

Literacy focus

What is a poster?

We use a **poster** to display ideas and information. We can view a **poster** to collect information about a topic.

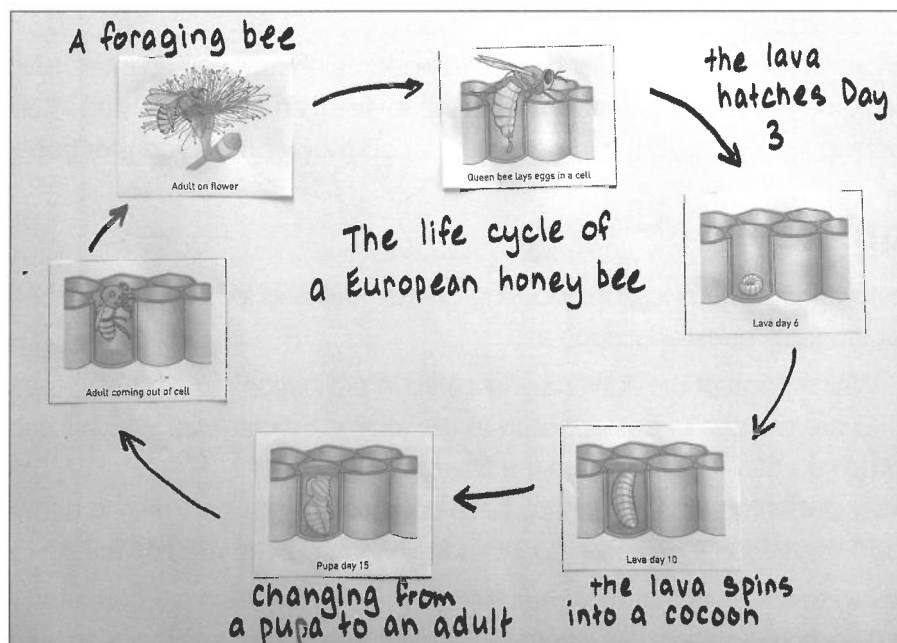
What does a poster include?

A **poster** includes a title, words and pictures. It might include graphs, photos and tables as well as borders, arrows and labels.

7 Ask teams to include information about how the pollination process interacts with the bee's life cycle.



8 Re-form teams. Allow time for teams to create their poster of the life cycle of a bee.



Work sample of the life cycle of a bee



- 9 Ask Speakers to present their posters. Ask questions, such as:
 - How do bees and flowers depend on each other for survival?
- 10 Update the TWLH chart and the word wall with words and images.

Curriculum links



Indigenous perspectives

- Watch George King take the Yarralin School students to collect sugarbag.
See: 'Sugarbag' <https://vimeo.com/113253327>
- For Yolngu living on country, in the homeland communities of Northeast Arnhem Land, the relationship with local, endemic stingless bees is quite different from the 'domestication' of the honey bee for consumption on an industrialised scale. A highly anticipated activity is sugarbag season, where men, women and children undertake excursions into the bush in search of these tiny bees to extract honey from their hives. See 'Sugarbag Dreaming' <https://vimeo.com/88737231>
- Primary**Connections** recommends working with Aboriginal and Torres Strait Islander community members to access local and relevant cultural perspectives. Protocols for engaging with Aboriginal and Torres Strait Islander community members are provided in state and territory education guidelines. Links to these are provided on the Primary**Connections** website (www.primaryconnections.org.au).

Science

- Observe bees in the garden. Take photos of each of the flower types that the bees visit. Count the number of times a bee visits flowers on one plant before it flies away.