

Ekka

ROYAL QUEENSLAND SHOW

CURRICULUM ALIGNMENT & CLASSROOM RESOURCES

BEES - APICULTURE



Foundation - 12

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OVERVIEW

In Australia, honey bees are essential for pollinating fruit, vegetables, nuts, and seed crops, making them one of the true foundations of agriculture. This education resource is designed to help students from Foundation through to Senior Secondary explore the fascinating world of bees, apiculture (beekeeping), and their critical role in our environment and food systems.

This resource recognises the vital role bees play in food production, biodiversity, and sustainable agriculture. It aims to build students' understanding of how pollination supports the growth of many of the foods we depend on every day, and why protecting bee populations is essential for ecological balance and future food security.



IMPORTANT CONTACTS

Education Content Enquiries

education@ekka.com.au



CURRICULUM ALIGNMENT

FOUNDATION

Science

Observe external features and behaviours of plants and animals, and describe how they live in their environments ([AC9SFU01](#))

Participate in guided investigations and make observations using their senses ([AC9SFI02](#))

Design and Technologies

Explore how plants and animals are grown for food, clothing and shelter ([AC9TDEFP01](#))

Use materials, techniques and equipment safely to make designed solutions ([AC9TDEFP03](#))

Health and Physical Education

Identify people and practices that keep them healthy and safe ([AC9HPFP06](#))

Practise personal and social skills to interact respectfully with others ([AC9HPFP04](#))



Creative and critical thinking



Ethical understanding



Sustainability



Personal and social capacity



Literacy



CURRICULUM ALIGNMENT

YEAR 1

Science

Describe how living things change as they grow ([AC9S1U01](#))

Identify how living things meet their needs in their environment ([AC9S1U02](#))

Design and Technologies

Explore how technologies use resources to meet needs and opportunities ([AC9TDE1K01](#))

Generate and communicate design ideas through modelling and drawing ([AC9TDE1P01](#))

Health and Physical Education

Describe actions that help keep themselves and others healthy and safe ([AC9HP1P06](#))



Creative and critical thinking



Ethical understanding



Sustainability



Personal and social capacity



Literacy



CURRICULUM ALIGNMENT

YEAR 2

Science

Compare how people use science in daily lives, including caring for living things ([AC9S2H01](#))

Investigate habitats and how living things depend on each other ([AC9S2U01](#))

Design and Technologies

Explore food and fibre production from managed environments ([AC9TDE2K01](#))

Create and test designed solutions using materials and equipment safely ([AC9TDE2P02](#))

Health and Physical Education

Identify how emotional responses affect interactions and wellbeing ([AC9HP2P06](#))



Creative and critical thinking



Ethical understanding



Sustainability



Personal and social capacity



Literacy



CURRICULUM ALIGNMENT

YEARS 3-4

Science

Describe relationships between living things and their environments ([AC9S3U01](#))
Recognise that scientific knowledge helps people care for environments and living things ([AC9S4H01](#))
Plan and conduct investigations safely ([AC9S4I03](#))

Design and Technologies

Investigate food and fibre production in managed environments such as farms and apiaries ([AC9TDE4K01](#))
Generate and communicate design ideas using technologies and graphical representation ([AC9TDE4P01](#))
Select and use suitable materials and components safely ([AC9TDE4P02](#))

Humanities and Social Sciences

Describe how people use environments sustainably ([AC9HS3G04](#))
explain how natural resources are used and conserved ([AC9HS4G05](#))

Health and Physical Education

Investigate practices that support health, safety and wellbeing ([AC9HP4P10](#))
Describe and apply strategies that support respectful relationships ([AC9HP4P08](#))



Creative and critical thinking



Ethical understanding



Sustainability



Personal and social capacity



Literacy



CURRICULUM ALIGNMENT

YEARS 5-6

Science

Explain how the growth and survival of living things are affected by environmental conditions ([AC9S5U01](#))

Investigate how scientific knowledge is used to solve environmental challenges ([AC9S6H02](#))

Plan fair tests and collect data to answer questions ([AC9S6I03](#))

Design and Technologies

Explain how and why food and fibre are produced in managed environments ([AC9TDE6K03](#))

Explain how people in design and technologies occupations consider competing factors including sustainability in the design of products, services and environments ([AC9TDE6K01](#))

Generate and refine design ideas considering sustainability ([AC9TDE6P01](#))

Safely produce designed solutions ([AC9TDE6P02](#))

Evaluate solutions against design criteria including sustainability and functionality ([AC9TDE6P03](#))

Health and Physical Education

Investigate different sources and types of health information and how these apply to their own and others' health choices ([AC9HP6P09](#))

Analyse how behaviours influence the health, safety, relationships and wellbeing of individuals and communities ([AC9HP6P10](#))



Creative and critical thinking



Ethical understanding



Sustainability



Personal and social capacity



Literacy



CURRICULUM ALIGNMENT

YEARS 7 - 8

Science

Investigate interactions between organisms and ecosystems ([AC9S7U01](#))

Analyse the impact of human activity on biodiversity and ecosystems ([AC9S8U02](#))

Use scientific methods to collect and analyse data ([AC9S8I05](#))

Design and Technologies

Analyse how food and fibre are produced in managed environments using sustainability principles ([AC9TDE8K04](#))

Investigate the ethical and sustainable production of food and fibre ([AC9TDE8K05](#))

Generate and communicate design ideas with consideration of user needs and sustainability ([AC9TDE8P01](#))

Select and use appropriate materials, tools and technologies safely ([AC9TDE8P02](#))

Health and Physical Education

Investigate factors that influence health practices and behaviours ([AC9HP8P10](#))

Evaluate strategies to manage personal, social and community health issues ([AC9HP8P08](#))



Creative and critical thinking



Ethical understanding



Sustainability



Personal and social capacity



Literacy



CURRICULUM ALIGNMENT

YEARS 9 - 10

Science

Analyse how ecosystems respond to changes and human impacts ([AC9S10U02](#))
Evaluate evidence relating to environmental sustainability and biodiversity ([AC9S10H03](#))
Design scientific investigations and analyse complex data ([AC9S10I05](#))

Design and Technologies

Investigate and critique ethical, social and sustainability factors in food and fibre production systems ([AC9TDE10K05](#))
Develop innovative and sustainable designed solutions for preferred futures ([AC9TDE10P01](#))
Evaluate design solutions against criteria including sustainability, ethics and functionality ([AC9TDE10P03](#))

Geography

Evaluate strategies for environmental management and sustainability ([AC9HG10K05](#))
Analyse human-induced environmental changes and their consequences ([AC9HG9K02](#))

Health and Physical Education

Evaluate the influence of health information and community actions on wellbeing ([AC9HP10P09](#))
Plan and propose strategies to enhance health, safety and sustainability in communities ([AC9HP10P10](#))



Creative and critical thinking



Ethical understanding



Sustainability



Personal and social capacity



Literacy





CURRICULUM ALIGNMENT

SENIOR SECONDARY - YEARS 11 - 12

Biology

Investigate ecosystem dynamics, biodiversity and interdependence of species.
Analyse the role of pollinators in maintaining ecosystems and food production systems.
Examine genetic diversity, adaptation and survival of species in changing environments.
Conduct fieldwork and scientific investigations using data collection and analysis techniques.

Agricultural Systems / Agriculture

Investigate animal production systems including apiculture and honey production.
Analyse sustainable food and fibre production practices in managed environments.
Evaluate environmental, economic and ethical considerations in agricultural industries.
Apply safe and ethical management practices in agricultural enterprises.

Environmental Science

Analyse ecosystem interactions and biodiversity conservation strategies.
Investigate the impacts of climate change, land use and pesticides on pollinator populations.
Evaluate sustainable environmental management practices and restoration strategies.
Collect and interpret environmental data from field investigations.

Food Science and Technology

Investigate the production and processing of foods including honey and bee products.
Analyse food safety, quality assurance and nutritional properties of food products.
Develop and evaluate food products considering sustainability and consumer needs.
Apply safe food handling and production practices.

Geography

Investigate human interaction with environments and sustainability challenges.
Evaluate the role of pollination in global food security and agricultural systems.
Analyse environmental management strategies for biodiversity conservation.





CURRICULUM ALIGNMENT

SENIOR SECONDARY - YEARS 11 - 12 (CONT.)

Health and Human Development / Health Studies

Investigate how nutrition and food choices influence health and wellbeing.
Analyse community health issues related to food security and environmental sustainability.
Evaluate health promotion strategies connected to sustainable food systems.

Design and Technologies

Design and evaluate sustainable systems and products related to food and fibre production.
Investigate emerging technologies used in agriculture and environmental monitoring.
Develop innovative solutions addressing sustainability and environmental challenges.

Vocational Education and Training (VET)

Agriculture / Conservation and Ecosystem Management / Rural Operations.
Apply practical beekeeping and hive management skills.
Implement workplace health and safety procedures in agricultural settings.
Monitor and maintain bee health and biosecurity practices.
Use industry-standard equipment and technologies in apiculture enterprises.



CLASSROOM RESOURCES

ACCESSIBLE FOR ALL AGES

The Wonderful Story of Australian Honey

Find out how bees make honey and how man has learnt their secrets.

honeybee.org.au/pdf/wonderfull01.pdf



How Honey is Made

Discover how honey is made, from flower, to hive to your home. It one of the great miracles of nature!

capilanohoney.com/learn/how-is-honey-made/



How to Create a Bee-Friendly Garden

Want to attract more bees to your veggie garden?

Are you looking to help support the sustainability of your neighbourhood bee population? With a few simple tips, your garden can become a haven for our littlest livestock. Read on to discover!

capilanohoney.com/learn/bee-garden/



CLASSROOM RESOURCES

PRIMARY: FOUNDATION - YEAR 6

Creating a Bee Hotel F - 6

Explore the different types of bees common to Australia, their features including how they are different to flies and wasps. We will focus on native bees, specifically to learn about their nesting habitat.

juniorlandcare.org.au/learning_activity/creating-a-bee-hotel-research/



Getting the buzz on bees and other beneficial insects - F - 2

We're going to identify animals in their habitats by exploring either your backyard, schoolyard, a local park or some other natural place. Investigate your surroundings to see which animals are sharing the local habitat with you. Use the field guide to help you identify animals in your area.

juniorlandcare.org.au/learning_activity/getting-the-buzz-on-bees-and-other-beneficial-insects/



ABC Education: Kids in the Garden: Discover Flower Power - F - 4

Can you imagine a world without flowers? Flowers add colour, scent and beauty to our world. But why do plants make them? Discover the real purpose of flowers and how they do their job.

abc.net.au/education/kids-in-the-garden-ep-3-discover-flower-power/13633096



Landline: Bees and the Ecosystem - F - 6

Most bees provide a free pollination service. While collecting pollen and nectar to make honey, they spread pollen from flower to flower, allowing them to reproduce.

abc.net.au/education/landline-bees-and-the-ecosystem/13910318



CLASSROOM RESOURCES

PRIMARY: FOUNDATION - YEAR 6 (CONT.)

PrimeZone - Brilliant Bees - Year 3

A seven week literature based program for year 3, Brilliant Bees aims to engage students in learning elements around bees through literacy and interactive classroom activities. The program allows for flexibility, extension/remediation and contains ready-made worksheets as well as extra resources, useful web-sites and other programs to link with.

primezone.edu.au/resource/brilliant-bees/



Junior Landcare: Creating a beneficial garden - Years 3 - 6

Biodiversity has been perfected by nature over millions of years and invertebrates play an important role in maintaining a balanced, biodiverse ecosystem. Invertebrates provide services to food crops including pollination and protection from pests.

juniorlandcare.org.au/learning_activity/creating-a-beneficial-garden-investigation/



PrimeZone - Investigate Bees - Years 5 - 6

The Investigate Bees Science and Technology teacher resource is a unique and exciting opportunity for students to delve into the world of bees and their critical role in our environment and food production.

nswdpi-schools-program.com/investigate-bees



CLASSROOM RESOURCES

SECONDARY: YEARS 7 - 10

Producing Pollinators for Improved Orchard Yields - Years 7 - 8

A Year 7-8 resource focusing on bees, pollinators, orchard management and sustainability. Students design pollinator habitats and investigate food production systems.

primezone.edu.au/resource/producing-pollinators-for-improved-orchard-yields/



Pollination to Plate: Science and Sustainability in the Horticulture Industry - Years 7 - 10

A curriculum-aligned secondary unit exploring pollination, biodiversity, sustainability and food security through science and design technologies. Includes lesson plans, investigations and classroom activities for Years 7-10.

primezone.edu.au/resource/pollination-to-plate-science-and-sustainability-in-the-horticulture-industry-secondary/



All About Eggs - Years 7 - 10

Although focused on egg production, this resource is excellent for linking food and fibre systems, sustainability, biosecurity and agricultural industries in Design and Technologies Years 7-10.

primezone.edu.au/resource/all-about-eggs-secondary-school/



Bee School: Pollinator Power - Years 7 - 10

Interactive curriculum-aligned school excursions and programs exploring pollination, food security, biodiversity and the agricultural importance of bees.

beechworthhoney.com.au/bee-school/classes/pollinator-power/



Urban Bee Education - Bees in Schools Program - Years 7 - 10

A hands-on high school beekeeping and STEM program where students work with live hives, learn hive management, honey production and sustainable agribusiness.

urbanbee.qld.edu.au/beesinschools



CLASSROOM RESOURCES

SECONDARY: YEARS 7 - 10 (CONT.)

Bee Aware – Education and Resources - Years 7 - 10

Australian beekeeping biosecurity and apiculture resources suitable for secondary agriculture and environmental science studies. Includes online courses and industry information.

beeaware.org.au/industry/education-and-resources/



When Bee Foundation – Student Resources - Years 7 - 10

Science-based student fact sheets and classroom materials covering native bees, hive structure, pollination and bee biology for secondary projects and investigations.

whenbeefoundation.org.au/c4be/student-resources/



Centre
For Bee
Education



CLASSROOM RESOURCES

SENIOR SECONDARY: YEARS 11 - 12

When Bee Foundation – Bee Education Resources

Useful senior secondary reference materials for biology, environmental science and agriculture relating to pollination, biodiversity and apiculture.

whenbeefoundation.org.au/our-work/resources/



Biosecurity for Beekeepers

Industry-standard biosecurity training and apiculture management resources appropriate for Agriculture, VET and Environmental Science pathways.

beeaware.org.au/industry/education-and-resources/



WA Apiarists' Society

Provides beginner through advanced beekeeping information, best-practice guidelines and training opportunities relevant to senior students and VET agriculture pathways.

waas.wildapricot.org/



Beechworth Honey – Senior Secondary & Bespoke Programs

Offers curriculum-linked secondary and senior secondary bee education experiences focusing on sustainability, food systems and agricultural industries.

beechworthhoney.com.au/bee-school/classes/



DISCOVER QUEENSLAND'S BIGGEST CLASSROOM

*Join schools from across the state bringing
learning to life through the Ekka experience.*



Scan here to get involved!





INTERNATIONAL AWARD WINNERS

The Royal Queensland Show (Ekka) is recognised for its excellence, over many years, by winning numerous awards at the International Fairs & Expos (IAFE) Awards.

IAFE has more than 1,000 members representing agricultural fairs from the United States, Canada, the United Kingdom, and Australia.

These awards represent the continued dedication the Ekka plays in bridging the country city divide, and educating the next generation on the essential role farming and agriculture plays in their everyday lives.