

# PLANTING FOR Bees

Year 5 - Year 6

Complete Unit of Work  
11 Lessons (approx 60 minutes each)  
Aligned to the Australian & Victoria Curriculum

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**Proud Partners**  
Inspiring a love of bees  
through learning



# ABOUT



Provide your students with an in depth exploration into the invaluable role of honey bees! Discover the symbiotic relationship between bees and plants, and how we as humans can support them. Explicit teaching of concepts around bee and plant biology, pollination, and food security will provide students with the knowledge they require to undertake research and design their own pollinator friendly garden.

## **Planting for Bees provides students with opportunities to:**

- Learn about the anatomy of flowers and bees to gain a deeper understanding into how pollination occurs.
- Explore the importance of honey bees and pollination for food security.
- Understand the importance of the symbiotic relationship between bees, plants and humans, how each helps the other to survive, as well as the impact of environmental factors on these relationships.
- Enjoy a honey tasting experience to explore how the nectar source creates the unique taste profile of different honeys.
- Discover what 'bee friendly' flowers are and how we can encourage bees into our environments.

## **Students apply their new learning by:**

- Planting 'bee friendly' seeds in an environment within the school grounds that has food, water and shelter to encourage honey bees to visit.
- Discovering which plants have adapted to grow in their schools' particular region, to design a pollinator friendly garden.

'Planting for Bees!' (Year 5-6) is aligned with the Science Curriculum for both the Australian and Victorian Curriculum. It has been developed to include both the Science Understanding and Inquiry Skills standards and the Sustainability Cross Curricular Priorities. The unit of work has been created by a team of qualified and experienced teachers from Bee School by Beechworth Honey in collaboration with the When Bee Foundation. With minimal adaptations required, this unit of work can be used by primary school teachers, science specialists, homeschool groups, and school holiday programs.

Everything you need to deliver this engaging and hands-on learning experience will be provided - including lesson plans, assessment opportunities, seeds for planting, honey for tasting, reading material, videos and printables.

# ABOUT



## What's included:

- **Background information for teachers on the topics of honey bees and plants.**
- **11 x 1 hour lessons including:**
  - Learning intentions and success criterias
  - Resource list (all resources included and noted below)
  - Assessment opportunities
- **Curriculum links:**
  - Australian Curriculum - Science
  - Victorian Curriculum - Science
  - Science Inquiry Skills
  - Sustainability Cross Curricular Priorities
- **All resources needed to teach the lessons are included:**
  - Complete unit of work - 11 x 1 hour lesson plans
  - Worksheets and assessment templates
  - Supporting videos and sound clips
  - 30x Bee Friendly Seed packets
  - 30x Mini Honey Tasting Kits
  - 'The Honeybee' by Kirsten Hall & Isabelle Arsenault
  - Activity resources including; sand, icy pole sticks, and pipe cleaners.

### Disclaimer

While all reasonable efforts have been taken to ensure the contents of this educational resource are factually correct and aligned with the Australian and Victorian Curriculum, it is the responsibility of the individual teachers and schools to ensure these lessons meet their curriculum needs and are suitable for their students.

All videos, photographs, and resources have been created by Bee School by Beechworth Honey in collaboration with the When Bee Foundation, unless otherwise stated and referenced, and are to be used for education and training purposes only.

Any reference to 'bee' throughout this unit of work refers to the European Honey Bee unless otherwise stated.

\*10-11 lessons - if you have previously completed the 'Honey Bee Habitats' lesson it is to teacher discretion whether to repeat.

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# AUSTRALIAN CURRICULUM LINKS

## Science

| Year 5  | Year 6  |
|---|---|
| Living things have structural features and adaptations that help them to survive in their environment (ACSSU043)  | The growth and survival of living things are affected by physical conditions of their environment (ACSSU094)  |
| Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions (ACSHE081) | Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions (ACSHE098) |
| Scientific knowledge is used to solve problems and inform personal and community decisions (ACSHE083)   | Scientific knowledge is used to solve problems and inform personal and community decisions (ACSHE100)   |

## Science Inquiry Skills

|  | Year 5   | Year 6   |
|--|--|--|
| <b>Questioning &amp; Predicting</b>                    | With guidance, pose clarifying questions and make predictions about scientific investigations (AC SIS231)  | With guidance, pose clarifying questions and make predictions about scientific investigations (AC SIS232)  |
| <b>Planning &amp; Conducting</b>                       | Identify, plan and apply the elements of scientific investigations to answer questions and solve problems using equipment and materials safely and identifying potential risks (AC SIS086)   | Identify, plan and apply the elements of scientific investigations to answer questions and solve problems using equipment and materials safely and identifying potential risks (AC SIS103)   |
| <b>Processing and Analysing Data &amp; Information</b> | Construct and use a range of representations, including tables and graphs, to represent and describe observations, patterns or relationships in data using digital technologies as appropriate (AC SIS090)<br><br>Compare data with predictions and use as evidence in developing explanations (AC SIS218) | Construct and use a range of representations, including tables and graphs, to represent and describe observations, patterns or relationships in data using digital technologies as appropriate (AC SIS107)<br><br>Compare data with predictions and use as evidence in developing explanations (AC SIS221) |
| <b>Evaluating</b>                                      | Reflect on and suggest improvements to scientific investigations (AC SIS091)   | Reflect on and suggest improvements to scientific investigations (AC SIS108)   |
| <b>Communicating</b>                                   | Communicate ideas. Explanations and processes using scientific representations in a variety of ways, including multimodal texts (AC SIS093)  | Communicate ideas. Explanations and processes using scientific representations in a variety of ways, including multimodal texts (AC SIS110)  |

## Sustainability Cross-Curriculum Priorities

|                    |   |
|--------------------|---|
| <b>System</b>      | All life forms, including human life, are connected through ecosystems on which they depend for their wellbeing and survival (OI.2)   |
|                    | Sustainable patterns of living rely on the interdependence of healthy social, economic and ecological systems (OI.3)  |
| <b>World Views</b> | World views that recognise the dependence of living things on healthy ecosystems, and value diversity and social justice, are essential for achieving sustainability (OI.4) |
|                    | World views are formed by experiences at personal, local, national and global levels, and are linked to individual and community actions for sustainability. (OI.5)         |
| <b>Futures</b>     | Actions for a more sustainable future reflect values of care, respect and responsibility and require us to explore and understand environments (OI.7)                       |
|                    | Sustainable futures results from actions designed to preserve and/or restore the quality and uniqueness of environments (OI.9)  |

# VICTORIAN CURRICULUM LINKS

## Science Understanding

|  |
|--|
| <b>Level 5 - Level 6</b>   |
| Scientific understandings, discoveries and inventions are used to inform personal and community decisions and to solve problems that directly affect people's lives (VCSSU073) |
| Living things have structural features and adaptations that help them to survive their environment (VCSSU074)  |
| The growth and survival of living things are affected by the physical conditions of their environments (VCSSU075)  |

## Science Inquiry Skills

|                                     | <b>Level 3 - Level 4</b>   |
|-------------------------------------|--|
| <b>Questioning &amp; Predicting</b> | With guidance, pose questions to clarify practical problems or inform a scientific investigation, and predict what the findings of an investigation might be based on previous experiences or general rules (VCSIS082) |
| <b>Planning &amp; Conducting</b>    | With guidance, plan appropriate investigation types to answer questions or solve problems and use equipment, technologies and materials safely, identifying potential risks (VCSIS083)                                 |
| <b>Recording &amp; Processing</b>   | Construct and use a range of representations, including tables and graphs, to record, represent and describe observations, patterns or relationships in data (VCSIS085)  |
| <b>Analysing &amp; Evaluating</b>   | Compare data with predictions and use as evidence in developing explanations (VCSIS086)  |
|                                     | Suggest improvements to the methods used to investigate a question or solve a problem (VCSIS087)   |
| <b>Communicating</b>                | Communicate ideas and processes using evidence to develop explanations of events and phenomena and to identify simple cause-and-effect relationships (VCSIS088)  |

**Please note:**

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# UNIT OUTLINE

| Lesson  | Overview   | Resources   |
|---|--|---|
| <b>Lesson 1</b><br><b>Bee Intrigued</b>               | <p>We are <b>exploring</b> our current understanding of bees and pollination <b>so we can</b> further our understanding of the topic.</p> <p><b>Assessment Opportunity</b><br/>Formative assessment in the form of a pre-assessment worksheet.</p>   | <ul style="list-style-type: none"><li>• 'Honey Bee Sounds' audio</li><li>• 'Planting for Bees! Pre-assessment' worksheet</li><li>• 'The Honeybee' by Kirsten Hall &amp; Isabelle Arsenault</li></ul>  |
| <b>Lesson 2</b><br><b>Pollination</b>                 | <p>We are <b>learning</b> about pollination <b>so we can</b> understand its importance for various living things.</p> <p><b>Assessment Opportunity</b><br/>Do students understand why bees are needed for pollination?</p>   | <ul style="list-style-type: none"><li>• 'Reflective Thinking Cards' resource</li><li>• 'What is Pollination?' video</li><li>• Sand - Pollen Prop (included)</li><li>• Icy Pole Sticks (included)</li><li>• Pipe Cleaners (included)</li><li>• Sticky Tape (not included)</li></ul>  |
| <b>Lesson 3</b><br><b>How Does Pollination Occur?</b> | <p>We are <b>learning</b> about the anatomy of bees and flowers <b>so we can</b> understand the details of how pollination occurs.</p> <p><b>Assessment Opportunity</b><br/>Can students accurately label a worker bee and the cross section of a flower?</p>  | <ul style="list-style-type: none"><li>• 'Cross Section of a Flower' worksheet</li><li>• 'Cross Section of a Flower (Answer Sheet)' resource</li><li>• 'Anatomy of a Bee' worksheet</li><li>• 'Anatomy of a Bee (Answer Sheet)' resource</li><li>• 'What is Pollination?' video</li><li>• 'Life in the Hive' video</li></ul> |
| <b>Lesson 4</b><br><b>Symbiosis</b>                   | <p>We are <b>learning</b> about symbiotic relationships <b>so we understand</b> how bees and plants are essential for each others' survival.</p> <p><b>Assessment Opportunity</b><br/>Student's ability to describe what a symbiotic relationship is and how bees and plants are an example of this.</p>   | <ul style="list-style-type: none"><li>• 'Reflective Thinking Cards' resource</li></ul>  |
| <b>Lesson 5</b><br><b>Honey Bee Habitats</b>          | <p>We are <b>learning</b> about the needs of honey bees as living things <b>so we can</b> understand how their survival is affected by their environmental conditions.</p> <p><i>*If you have previously completed the 'Honey Bee Habitats' lesson, it is to teacher discretion whether to repeat.</i></p> <p><b>Assessment Opportunity</b><br/>What does a living thing need to survive? Shelter, food, etc. How can we help to provide this?</p> | <ul style="list-style-type: none"><li>• 'Australian Landscapes' resource</li><li>• Mini Honey Tasting Kits</li><li>• 'Honey Bee Needs' video</li></ul>  |

## Lesson 6

### Busy Bees

**We are learning** how humans rely on bees and plants **so we can** see the importance of supporting bees and plant health.

#### Assessment Opportunity

Students ability to be able to explain the ingredients in pantry items and how dependent these are on bees for pollination.

- 'Food Security Needs Bee Security' resource
- 'Bees for Food Security' video

## Lesson 7

### Is Your School Bee Friendly?

**We are investigating** our school grounds **so we can** collect data on the pollinator friendly plants we currently have.

#### Assessment Opportunity

Do students have an understanding of what plants need to grow? (water, sunshine, nutrients, pollinator). Can students identify features of a bee friendly environment? For example, what coloured flowers attract bees? Can they compare the results to their predictions? Science inquiry skills: students are recording information, comparing and reflecting on findings.

- 'Discovery Walk' worksheet

## Lesson 8

### Pollinator Power

**We are learning** about the plants that have adapted to survive in our region **so we can** plan a pollinator friendly garden in our school.

#### Assessment Opportunity

Have students made a well informed decision as to why they chose their 'region specific' plant to add to the plan for a bee friendly garden? Science inquiry skills: students are recording information, comparing and reflecting on findings.

- 'What is Pollination?' video
- 'Powerful Pollinators Guide' (see below)\*
- 'Discovery Walk' worksheet

## Lesson 9

### Flower Power (Part 1)

**We are continuing** to investigate plants that grow well in our region **so we can** choose the best types of plants for our school grounds to attract and support pollinators.

#### Assessment Opportunity

Students ability to transfer knowledge of plants that grow well in their region to the plan for a bee friendly garden in their school. Have they considered size, vegetation, type and height?

- 'Honey Bee Needs' video

## Lesson 10

### Flower Power (Part 2)

**We are investigating** plants that grow well in our region **so we can** choose the best types of plants for our school grounds to attract and support pollinators.

#### Assessment Opportunity

Students ability to transfer knowledge of plants that grow well in their region to the plan for a bee friendly garden in their school. Have they considered size, vegetation, type and height? What else could students include that would encourage pollinators in their school garden? i.e. water and shelter.

- 'Honey Bee Needs' video
- 'Reflective Thinking Cards' resource

## Lesson 11

### That's a Wrap

**We are exploring** our new understandings of bees and pollination **so we can so we can** consider future actions we can take.

#### Assessment Opportunity

Summative post-assessment

- 'Bee Sounds' audio
- 'Planting for Bees Post-assessment' worksheet

#### \*Powerful Pollinator Guides

Visit [whenbeefoundation.org.au/our-work/powerful-pollinators](http://whenbeefoundation.org.au/our-work/powerful-pollinators) to see if there is a guide published for your region. You can access the pollinator guides online or contact When Bee for hard copies of these documents.

These will be used in lessons seven and eight. If you would like hard copies of these resources, order prior to beginning the unit to ensure they have arrived in time.