# PLANTING FOR Bees

### Foundation - Year 2

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

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





## ABOUT

Guide students to discover the invaluable relationship between honey bees and plants in this extensive unit of work. Aimed at students from Foundation to Year 2, this unit of work provides a variety of experiences to suit all learners.

Explicit teaching on the needs of living things, pollination, and the life cycle of a honey bee provide students with knowledge and awarenessto see the importance of the action, planting their own'bee'friendly' seeds.

Hands-on collaborative learning experiences such as the Bee Play, where students engage with props and represent the various roles of a worker bee through play, allow for authentic learning about the importance of the honey bee in pollination and food security.

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

- Learn through immersion in a bee focused picture story book
- Explore the workings of a beehive through an interactive, play-based opportunity
- Learn about honey bees as living things and what they need to survive.
- Explore pollination and how honey bees are vital pollinators.
- Discover the lifecycle of a honey bee.
- Enjoy a honey tasting experience to explore how nectar sources create unique taste profiles of different honey.
- Learn about the importance of honey bees for our food security.
- 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.
- Participating in a 'bee play' to. investigate the different roles and workings within a beehive by taking on the responsibilities of a queen bee, guard, cleaner, wax producer, or forager bee.

Planting for Bees (Foundation to Year 2) is aligned with 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 Wheen 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 inspiring 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 one hour lessons including:
  - Learning outcomes 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
  - 'Bee: Nature's Tiny Miracle' by Britta Teckentrup (Illustrator) & Patricia Hegarty (Author)
  - 'Bee Play' props including; cleaning gloves, 'Blossom Bee' plush toy, drawstring bag with wax, shield, headbands and buckets, prop pollen, and a crown.

### 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 educators 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 Wheen 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

| Foundation  | Year 1   | Year 2   |
|---|--|--|
| Living things have basic needs, including food and water (ACSSU002)                 | Living things have a variety of external features (ACSSU017)                   | Living things grow, change and<br>have offspring similar to themselves<br>(ACSSU030) |
| Daily and seasonal changes in our<br>environment affect everyday life<br>(ACSSU004) | Living things live in different places where<br>their needs are met (ACSSU211) | Earth's resources are used in a variety of ways (ACSSU032)                           |
|   | Observable changes occur in the sky and landscape (ACSSU019)                   |  |

### **Science Inquiry Skills**

|  | Foundation  | Year 1   | Year 2   |
|--|---|--|--|
| Questioning & Predicting                       | Pose and respond to<br>questions about familiar<br>objects and events (ACSIS014)                | Pose and respond to<br>questions, and make<br>predictions about familiar<br>objects and events<br>(ACSIS024)   | Pose and respond to<br>questions, and make<br>predictions about familiar<br>objects and events<br>(ACSISO37)   |
| Planning & Conducting                          | Participate in guided<br>investigations and make<br>observations using the senses<br>(ACSIS011) | Participate in guided<br>investigations to explore and<br>answer questions (ACSIS025)<br>Use informal measurements<br>to collect and record<br>observations (ACSIS026)     | Participate in guided<br>investigations to explore and<br>answer questions (ACSIS038)<br>Use informal measurements<br>to collect and record<br>observations (ACSIS039)     |
| Processing and Analysing<br>Data & Information | Engage in discussions about<br>observation and represent<br>ideas (ACSIS233)                    | Use a range of methods to<br>sort information, including<br>drawings and provided tables<br>and through discussion,<br>compare observations with<br>predictions (ACSIS027) | Use a range of methods to<br>sort information, including<br>drawings and provided tables<br>and through discussion,<br>compare observations with<br>predictions (ACSIS040) |
| Evaluating                                     | N/A   | Compare observations with those of others (ACSIS213)   | Compare observations with those of others (ACSIS041)   |
| Communicating                                  | Share observations and ideas (ACSIS012)   | Represent and communicate<br>observations and ideas in a<br>variety of ways (ACSIS029)   | Represent and communicate<br>observations and ideas in a<br>variety of ways (ACSISO42)   |

### **Sustainability Cross-Curriculum Priorities**

| System      | 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)  |
| World Views | 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)         |
| Futures     | 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**

### Foundation - Level 2

People use science in their daily lives (VCSSU041)

Living things have a variety of external features and live in different places where their basic needs, including food, water and shelter, are met (VCSSU042)

Living things grow, change and have offspring similar to themselves (VCSSU043)

### **Science Inquiry Skills**

|                          | Foundation - Level 2   |  |
|--------------------------|--|--|
| Questioning & Predicting | Respond to and pose questions, and make predictions about familiar objects and events (VCSIS050)                                 |  |
| Planning & Conducting    | Planning and conducting  |  |
|                          | Participate in guided investigations, including making observations using the senses, to explore and answer questions (VCSIS051) |  |
| Recording & Processing   | Use informal measurements in the collection and recording of observations (VCSIS052)   |  |
|                          | Use a range of methods, including drawings and provided tables, to sort information (VCSIS053)                                   |  |
| Analysing & Evaluating   | Compare observations and predictions with those of others (VCSIS054)   |  |
| Communicating            | Represent and communicate observations and ideas about changes in objects and events in a variety of ways (VCSIS055)             |  |

### Please note:

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### UNIT OUTLINE

| Lesson                                    | Overview   | Resources  |
|---|--|--|
| Lesson 1<br>Bee Intrigued                 | We are exploring what we already know about honey<br>bees and pollination so we can further our understanding.<br><b>Assessment Opportunity</b><br>Pre-assessment  | <ul> <li>'Bee Sounds' audio</li> <li>'Planting for Bees! Pre-assessment'<br/>worksheet</li> <li>'Bee: Nature's Tiny Miracle' by Britta<br/>Teckentrup (Illustrator) &amp; Patricia<br/>Hegarty (Author)</li> </ul> |
| Lesson 2<br>Living &<br>Non-Living Things | We are learning about living and non-living things so we<br>can identify living things and understand what they need<br>to survive.<br><b>Assessment Opportunity</b><br>Do students show an understanding of the features of<br>living vs non-living things? | <ul> <li>'Bee: Nature's Tiny Miracle' by Britta<br/>Teckentrup (Illustrator) &amp; Patricia<br/>Hegarty (Author)</li> <li>'Living &amp; Non-living Things' resource</li> </ul>                                     |
| Lesson 3<br>Pollinators                   | We are learning about the needs of living things so we<br>can begin to understand pollination.<br><b>Assessment Opportunity</b><br>Revisit pre-assessment and see if any students' 'What<br>would you like to know?' section has been answered.              | <ul> <li>'Pollinator Cards' resource</li> <li>'What Do Living Things Need?'<br/>worksheet</li> <li>Sand (Pollen Prop)</li> <li>'Flower Cutouts' resource</li> </ul>  |
| Lesson 4<br>Life Cycle of a<br>Honey Bee  | We are learning about the life cycle of a honey bee so we<br>can understand how a honey bee colony functions.<br><b>Assessment Opportunity</b><br>Can students accurately sequence the life cycle of a<br>honey bee?   | <ul> <li>'Life in the Hive' video</li> <li>'Life Cycle of a Honey Bee<br/>(Diagram)' resource</li> <li>'Life Cycle of Honey Bee<br/>(Sequence)' worksheet</li> </ul>   |
| Lesson 5<br>Honey Bee<br>Habitats         | We are learning about the needs of honey bees as living<br>things so we can understand how their survival is affected<br>by their environmental conditions.<br><b>Assessment Opportunity</b><br>What does a living thing need to survive?                    | <ul> <li>'Australian Landscapes' resource</li> <li>Mini Honey Tasting Kits (30)</li> <li>'Honey Bee Needs' video</li> </ul>  |
| Lesson 6<br>Busy Bees                     | We are learning about the roles of a worker bee during its<br>life so we can understand the importance of worker bees<br>for pollination.<br><b>Assessment Opportunity</b><br>Can students explain the roles of a worker bee<br>throughout their life?       | <ul> <li>'Life in the Hive' video</li> <li>Bee Play props <ul> <li>Cleaning gloves</li> <li>Blossom Bee plush toy</li> <li>Drawstring bag with wax</li> <li>Shield</li> <li>Headband</li> </ul> </li> </ul>        |

| Lesson 7<br>Is Your School<br>Bee-Friendly?         | We are learning about what makes a bee friendly garden<br>so we can identify if our school is bee friendly by having a<br>range of flowers throughout the year.<br><b>Assessment Opportunity</b><br>Science inquiry skill - can the students make a prediction?<br>Can they compare the results to their predictions?  | <ul><li>'Bee Safety' video</li><li>'Discovery Walk' worksheet</li></ul>  |
|---|--|--|
| Lesson 8<br>Flower Power                            | We are learning how to plant and care for seeds so we<br>can ensure our seeds grow to provide a food source for<br>bees.<br>Assessment Opportunity<br>Do students have an understanding of what plants need<br>to grow? (water, sunshine, nutrients, pollinator).  | <ul> <li>'Bee Friendly Seeds' (30)</li> <li>'Bee Friendly Needs' video</li> </ul>  |
| Lesson 9<br>Plant - Bee<br>Relationships            | We are learning that bees and plants have a symbiotic<br>relationship so we can understand how to support each<br>one.<br><b>Assessment Opportunity</b><br>Can the students state the way the bee has helped the<br>flower?  | <ul> <li>'Symbiotic Relationships' worksheet</li> <li>'Pollinator Cards' resource</li> </ul>   |
| Lesson 10<br>Food Security<br>Needs Bee<br>Security | We are learning about the fruits and vegetables that are<br>dependent on bees to grow so we can appreciate the<br>importance of bees for our food security.<br><b>Assessment Opportunity</b><br>Students ability to identify foods that are reliant on bees<br>for pollination. Do students understand that plants need<br>honey bees (and other pollinators) in order to reproduce? | <ul> <li>'Food Security Needs Bee Security'<br/>resource</li> <li>'Bee-dependent Fruit &amp; Vegetables'<br/>worksheets</li> </ul>   |
| Lesson 11<br>That's a Wrap                          | We are showing our understanding of bees and<br>pollination so we can discuss what we would like to know<br>further.<br><b>Assessment Opportunity</b><br>Post-assessment.  | <ul> <li>'Bee Sounds' audio</li> <li>'Planting for Bees Post-assessment'<br/>worksheet</li> <li>'Bee: Nature's Tiny Miracle' by Britta<br/>Teckentrup (Illustrator) &amp; Patricia<br/>Hegarty (Author)</li> </ul> |