

Bees

Clade: Anthophila
Kingdom: Animalia
Order: Hymenoptera
Class: Insecta

There are thousands of bee species around the world. In Australia alone there are over 1700. Many are native (they come from Australia) however some are introduced like the European Honey Bee. Bees are very important to the environment. Let's find out WHY.



KEYWORDS

bee; pollen; pollinate; hive; worker bee; drone; queen bee; honeycomb; wax; royal jelly; colony; swarm; sting; colony collapse; bumblebee, apiarist, bee hotel; varroa mite; sacbrood disease; fouldbrood disease; biosecurity; native bees; food security; honey bees; bumblebees; Halictidae, beekeeping; wasp;

Add other key words you discover while you are doing your inquiry.



DEFINING MY TOPIC

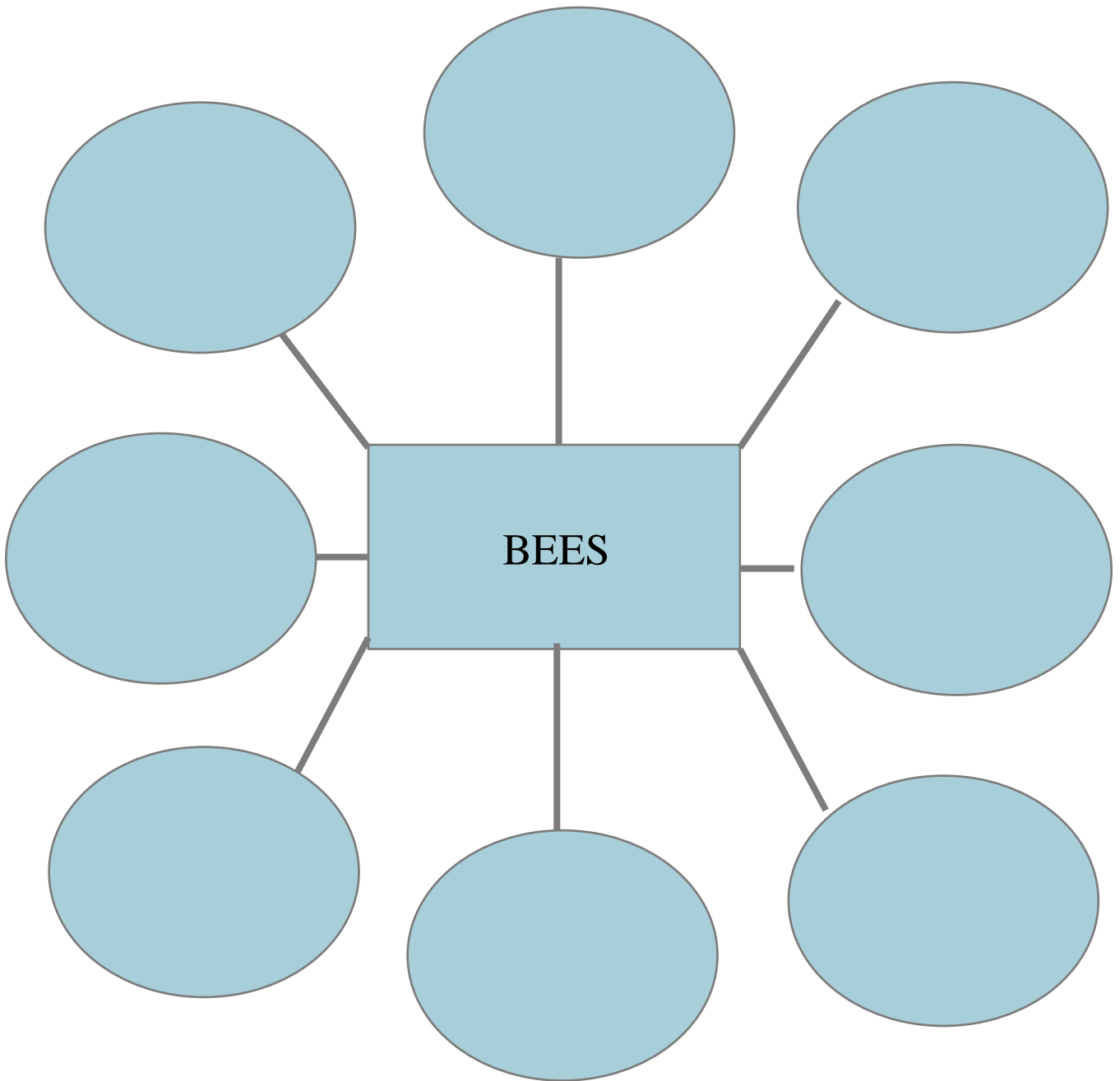
WHAT DO I ALREADY KNOW ABOUT BEES?

Jot down anything you know about bees.



BRAINSTORMING IDEAS AROUND BEES

Add ideas in each of the 'bubbles' about bees either that you know or want to find out.



DEVELOPING YOUR OWN FOCUS QUESTION

You have been given some examples of questions you might ask about bees. Now make up some questions of your own. Try to ask OPEN-ENDED questions. Why not use the **Five Ws and H** to get you started developing your questions. You can then use the **QUESTION MATRIX** to create more complex questions.

Questions starter	Write your questions here
Who?	
What?	
Where?	
When?	
Why?	
How?	



THE QUESTION MATRIX

	EVENT	SITUATION	CHOICE	PERSON	REASON	MEANS
Present	What is?	Where / when is?	Which is?	Who is?	Why is?	How is?
Past	What did?	Where / when did?	Which did?	Who did?	Why did?	How did?
Possibility	What can?	Where / when can?	Which can?	Who can?	Why can?	How can?
Probability	What would?	Where / when would?	Which would?	Who would?	Why would?	How would?
Prediction	What will?	Where / when will?	Which will?	Who will?	Why will?	How will?
Imagination	What might?	Where / when might?	Which might?	Who might?	Why might?	How might?

Choose one question starter from each line and column and write them below.



FOCUS QUESTIONS

Here are some *questions* to get you started on your inquiry. You might also like to write some questions of your own under each heading.

Habitat

Where do bees mainly live (native and commercial bees)?

Food

What do bees eat?

Lifespan

How long do bees live?

Reproduction

Is it only the queen bee that reproduces?

How many bee larvae are produced

Decline on bee population

What are the main causes for the decline in bee populations?

Protection

How can we help protect bee populations?







Importance in the ecosystem

What role do bees play in the ecosystem?



PUT YOUR THINKING HATS ON

Write down your ideas or questions about dugongs under each hat

<p>White Hat Thinking <i>What facts do you know about bees</i></p> 	<p>Black Hat Thinking <i>What negative things are harming bees?</i></p> 
<p>Yellow Hat Thinking <i>How are bees important to the environment and the economy?</i></p> 	<p>Green Hat Thinking <i>What are some interesting facts about bees?</i></p> 
<p>Red Hat Thinking <i>How do people feel about bees?</i> <i>How do you feel about bees?</i></p> 	<p>Blue Hat Thinking <i>What have you learned from doing this inquiry?</i></p> 

LOCATING YOUR INFORMATION

Resources to help with my inquiry

There are many places for you to find information about your topic but most people use the internet. Here are three resources from the internet to get you started with your inquiry about **dugongs**. Use them to answer the questions you have made so far.



Resource	How does this resource help with my research?
Top 10 Facts about Bees https://www.wwf.org.uk/learn/fascinating-facts/bees	
Ten Facts About Honeybees https://www.natgeokids.com/au/discover/animals/insects/honey-bees/	
Aussie Bee Website https://www.aussiebee.com.au/	

HOW GOOD ARE THE RESOURCES THAT I HAVE FOUND?

How do you know what is a 'good source' of information when you are doing your research? Use the **RADCAB** checklist to help you work out whether a resource is suitable for your inquiry.

RELEVANCE	Is the information relevant to the question I am trying to answer?
APPROPRIATENESS	Is the information suitable to my age and reading level?
DETAIL	How much information does the resource have about dugongs?
CURRENCY	Is the information up to date / current?
AUTHORITY	Who is the author of the information? What are his or her qualifications? Are they an expert in this area?
BIAS	Is this information biased? Was this resource written to inform me, persuade me, entertain me, or sell something to me?

Which of the three resources above do you think is most useful and why?



WHERE CAN YOU FIND MORE INFORMATION ABOUT BEES?

Searching on the web for your resources

Did you know that there are other great **search engines** besides Google? Here are two others you can try. Why not compare the results from each.



SEARCH TERMS

Before you start searching on the web you need to choose SEARCH TERMS that are going to give you the best results. To narrow the search use the word AND to combine terms e.g.

native bee **AND** *Australia*;

beekeeping **AND** *Australia*

pollination **AND** *food security*

Write your search terms here

	Resource URL	Information it provides
INSTAGROK		
Duck Duck Go		
GOOGLE		

TAKING NOTES FROM THE RESOURCES I HAVE FOUND

Task / Problem

Subheading	Notes

Expand this chart as you need to complete your notes.



NOTEMAKING OPTION ONE

Task / Problem

Heading 1
Subheading a)
Subheading b)
Subheading c)

Heading 2
Subheading a)
Subheading b)
Subheading c)

Heading 3
Subheading a)
Subheading b)
Subheading c)

Heading 4
Subheading a)
Subheading b)
Subheading c)



NOTEMAKING OPTION TWO

Topic: _____

Focus Question: _____



PRESENTING YOUR WORK

The presentation format you use will greatly depend on the *purpose* and *audience* for your tasks. Listed below are a range of presentation and digital storytelling tools that you may consider using for your final product. To get more information on how to create dynamic projects visit the Research Safari website.

Slideshow Presentation	Brochure	Poster	Digital Story
Report	Podcast	Website	Journal / Diary
Model	Documentary	Cartoon / Animation	Movie

Make some notes here about how you are going to present your work.



WRITING YOUR BIBLIOGRAPHY

A bibliography is a list of resources used in preparing a piece of work.

When writing up a piece of work you will need to cite (quote) the bibliographical references of all resources you have used. There are many different referencing formats you can use. **MAKE SURE YOU KNOW WHICH FORMAT IS USED AT YOUR SCHOOL AND FOLLOW THAT ONE.** The example below is from the Harvard Referencing System.

Bibliographical references need to be cited in two different places:

1. Where a document is referred to in the text.
2. In a list at the end of the work, which is arranged alphabetically by author, then by date. This author/date system of description is referred to as the Harvard System.

Books (incl. Reference)

Include the following information in this order:

1. Author's surname, (comma) initials. (full stop)
2. Date, (comma)
3. Title of book, (italics) (comma)
4. Publisher, (comma)
5. Place of publication. (full stop)

For a reference book:

Title of book, (italics) (comma)

Year, (comma)

Edition, (comma)

Publisher, (comma)

Place of publication. (full stop)

Dixon, J. 1993, *How to be a successful student*, Penguin Books, Ringwood.

Books (Edited)

Include the following information in this order:

1. Editor's surname, (comma) initials. (full stop)
2. Year, (comma)
3. Title of book, (italics) (comma)
4. Publisher, (comma)
5. Place of publication. (full stop)

Harvey, J. 2002, *Water pollution*, Penguin Books, Ringwood.

For an Article in an edited book:

Bryant, S. 1999, 'The energy crisis of 1920', in P. Jarman (ed.) *Worldwide energy*, Blackwell, Sydney.

Interviews

Include the following information in this order:

1. Surname of person being interviewed, (comma) initials. (full stop)



2. Month and Year of interview, (comma)
3. Title of interview, (italics) (comma)
4. Interviewer's name
5. Type of interview e.g. tape recording, transcript, video recording [in square brackets]
6. Place of interview. (full stop)

Berger, P. Aug 2002, Teaching in L.A., Interviewed by J. Smith [Transcript of Interview] Melbourne Conference Centre.

Journal Articles

Include the following information in this order:

1. Author's surname, (comma) initials. (full stop)
2. Date, (comma)
3. Title of the article, (in single quotation marks) (comma)
4. Title of the journal, (italics) (comma)
5. Volume, (comma) number, (comma) month/season, (comma)
6. Page numbers of article. (full stop)

Burns, S. 1989, 'There's more than one way to learn', Australian Wellbeing, Vol. 6, No 33, October, pp42-44.

Newspaper Articles

Include the following information in this order:

1. Author's surname, (comma) initials. (full stop)
2. Date, (comma)
3. Title of the article, (in single quotation marks) (comma)
4. Title of the newspaper, (italics) (comma)
5. Date of publication, (comma)
6. Page numbers of article. (full stop)

Popham, B. 1997, 'Saving the future', Weekend Australian, 7 February, p2.

Videos

Include the following information in this order:

1. Title (italics)
2. Date, (comma)
3. Format, (video recording) (comma)
4. Publisher, (comma)
5. Place of publication. (full stop)

South American wetland 1982, video recording, BBC, London.



World Wide Web

Include the following information in this order:

1. Author – person or organisation responsible for the site
2. Site date, the date the site was created or last revised (comma)
3. Name of sponsor or publisher, (comma)
4. Place of sponsor or publisher, (comma)
5. Date of viewing of the site, (comma) year, (comma)
6. URL. (full-stop)

Department of Finance and Administration 2001, Department of Finance and Administration, Canberra, viewed 7 August, 2001, <http://www.finance.gov.au>.

Write your bibliography here for all of the resources you have used in your inquiry. Put each citation on a different line in this table.



EVALUATING MY WORK

The *evaluation* stage is perhaps one of the most important stages of the *Research Process*. Not only does it give you a chance to see how well you did in the task but it also helps you to identify the areas you may need to work on in the future.

Some of the questions you would ask yourself are:

How did I go?

What did I do well?

What did I struggle with?

What do I need to improve next time?

What are five key things I learned from this task?

1)

2)

3)

4)

5)

How will this learning make a difference time?

What is one skill I need to work on for my next assignment?

How else could I have done this task?

Add any other information you may need for your assignment here.

