

The World of Bees

BY CRISTINA BANFI AND GIULIA DE AMICIS



MATERIALS & RESOURCES:

- [Copies of the Title](#) for the student in the group
- **The World of Bees: Student Guide** printable
- Students will need to access the internet for video links

SUMMARY AND DETAILS

This book will take you on an amazing adventure with the bees! Section by section, learn all about the history of bees, the language of bees, and the science of bees. From honey products to honey eaters, this title will help students get excited about the world of bees!

Grade Level: 2nd-6th

Lexile Level: Not available

Guided Reading Level: Not available

Genre: Nonfiction

HOW TO IMPLEMENT THE HIGH FLIERS BOOK CLUB

- Determine if this book is the correct reading level for the students by grade level and reading ability.
- Create a schedule with the students for assignments, including how many pages need to be completed along with the questions and activities in the Student Guide at each book club meeting.
- Make a plan of how students will make up the work if they miss an assignment.
- All content can be assigned digitally through LMS.
- This book club is designed to engage students as they read, providing a concept-appropriate video link for each section as well as Seek and Find questions.
- This Student Guide could be used by the educator to drive the instruction section by section or it could be printed and housed with a copy of the book in the classroom as a self-directed project.

The High Fliers Book Club - The World of Bees

ELA COMMON CORE

WRITING STANDARDS FOR INFORMATIONAL TEXT

3rd Grade: [RI.3.1](#), [RI.3.3](#), [RI.3.6](#), [RI.3.7](#), [W.3.2](#), [W.3.7](#), [W.3.8](#)

4th Grade: [RI.4.2](#), [RI.4.3](#), [RI.4.7](#), [W.4.2](#), [W.4.7](#), [W.4.8](#), [W.4.9](#)

5th Grade: [RI.5.1](#), [RI.5.3](#), [RI.5.7](#), [RI.5.8](#), [W.5.2](#), [W.5.7](#), [W.5.8](#), [W.5.9](#)

NEXT GENERATION SCIENCE STANDARDS

3rd Grade: [3-LS2-1](#), [3-LS4-1](#), [3-LS4-3](#)

4th Grade: [4-LS1-1](#)

5th Grade: [5-LS2-1](#)



Name: _____

High Fliers Book Club Student Guide
The World of Bees
by Cristina Banfi and Giulia De Amicis

Introduction

Watch this video link to learn more about why you should Thank a Bee!

Find and Seek:

How do bees communicate with each other? _____

Predict what kinds of dangers the older expert bees face outside of the hive. _____

Which bee is the head of the kingdom? _____

1. Honey Bees

Watch this video link to learn more about a Bee Fossil of a Leaf Cutter Bee from the Ice Age!

Find and Seek:

Bees live on every continent EXCEPT _____

The four main groups of bees are _____

What is the major difference between the oldest fossil of a bee found in the United States and today's modern honey bees? _____

2. Anatomy of a Bee

Watch this video link to learn more about [The Life of a Carpenter Bees](#). Learn how these Mothers on a Mission prepare to lay their eggs!

Find and Seek:

Which vital organs are found on each part of the bee's body?

Head _____ Thorax _____

Abdomen _____

What do the Maya people call honey? _____

How does the Syrphid fly use the same colors as a bee or wasp to trick its predators? _____

3. Social Structure

Watch this video link to see these worker bees in action with [Jobs of the Worker Bee!](#) [encycloBEEdia](#).

Find and Seek:

Give two facts about the queen bee: _____

Give two facts about the worker bees: _____

Give two facts about the drones: _____

4. The Sense Organs

Watch this video link to see how [Bees Can See the Invisible!](#)

Find and Seek:

What part of the body do bees use to taste, touch, and smell? _____

How does a bee hear sounds? _____

What does the bee's eye, called ocelli, allow the bee to see? _____

5. Pollination

Watch this video about [Pollination for Kids!](#)

Find and Seek:

What are the three ways that plants get the pollen they need to make the next generation of plants? _____

What colors are bees attracted to? What color can't bees see? _____

Try the math again! How many flowers would be visited if there are 35,000 bees in the beehive? _____

6. Swarming

Watch this video about [Why Do Bees Swarm!](#)

Find and Seek:

What do the bees do to prepare for the swarm with the old queen? How many workers go with the queen? _____

How do the worker bees protect the queen while they are finding a new home? _____

How does the old colony prepare for a new queen? _____

7. Communication

Watch this video about and why [Honey Bees Waggle Dance!](#)

Find and Seek:

How was the waggle dance discovered and by who? _____

Describe the waggle dance: _____

How do the bees know exactly which flower the forager bee is telling them to find? _____

8. The Bee Dance

Watch this video to see [Forager Bees Doing the Round Dance!](#)

Find and Seek:

What does it mean if the bee dances in the same direction as the sun? _____

Describe the difference between the round dance and the waggle dance: _____

Use a measuring tool (tape measure, ruler, or meterstick) to measure 164 feet (50M) on the playground or in a hallway of your school.

9. Orientation

Watch this video about [How Bees Find Their Way Back to the Hive!](#)

Find and Seek:

What is the most important tool for bees, birds, and butterflies for finding their way home? ____

What did the scientists find out about bees when they “confused” them? _____

What do scientists believe that bees and mammals have in common? _____

10. Bee Products

Watch this video about [Bee Products!](#)

Find and Seek:

Which of the bee products is used to disinfect the hive because of its powerful antibacterial properties? _____

Which bees in the hive make Royal Jelly and what is it used for? _____

Go to [this blog](#) from Savannah Bee Company to read about how bees make wax. Retell in your own words how this process works _____

11. The Nest

Watch this video about [Mining Bees](#), solitary wild bees who build their nest underground!

Find and Seek:

Why do the honey bees build a hexagonal honeycomb? _____

How is a builder bee different from a mining bee? _____

What do the mining bees, the builder bees, and the carpenter bees all have in common with regards to their nests? _____

12. The Tasks of Worker Bees

Watch this video about the [Honey Bee Caste](#) system!

Find and Seek:

What are three distinguishing characteristics that make worker bees different than drones or the queen? _____

How do the bees work together to protect the hive in the winter? _____

Besides their own jobs, what are ALL of the bees doing constantly to help the hive and why?

13. Honey-Eaters

Watch this video about the [Honey Badger Endures Bee Stings for His Favorite Treats!](#)

Find and Seek:

What are two animal characteristics that allow them to feed off of the bee's honey? _____

What physical characteristics makes the honey badger practically immune to bee stings?

Choose one of the insects that is dangerous to the bees and tell two facts about that insect: _

14. The Queen Bee's Nuptial Flight

Watch this video about the [Queen and Honey Bee's Nuptial Flight!](#)

Find and Seek:

Why do you think that the nuptial flight takes place on a windless day? _____

Why does the queen have servants go with her for this flight? _____

How do male solitary bees insure that all of a female's brood will have the same father? _____

15. Honey Throughout History

Watch this video about [Georgian Ancient Honey!](#)

Find and Seek:

Who were the first people to raise bees? What evidence is there to suggest that?_____

What is the origin of the word honey and what does it mean? _____

What did the ancient Romans use honey for?_____

Why did Charlemagne decide that all of his subjects were required to raise bees on every farm?

16. Between Spirituality and Symbolism

Watch this video about [Honey Bee History with The Honeystead!](#)

Find and Seek:

In ancient Egypt, where was the bee believed to be from and what kind of powers did they believe it had? _____

Where did the Greeks and Romans believe that bees came from? _____

Choose three of the values that religions attribute to the honey bees to research using a dictionary. Write down the definitions: _____

17. The Great Bee Family

Watch this video about the Orchid Bee -- [An Orchid's Trap!](#)

Find and Seek:

What is one thing that honey bees and bumble bees have in common? What is one thing that is different? _____

How do stingless bees defend themselves? _____

What nesting style makes the cuckoo bee so unique? _____

18 & 19. Are Bees Disappearing? And Understanding the Problem

Watch this video about [Why Bees are Disappearing!](#)

Find and Seek:

How would bee extinction affect plants? _____

How do varroa mites harm honey bees? _____

How might cell phones be affecting bees? _____
