Bees buzz from flower to flower, gathering nectar and collecting pollen. Let your students buzz through bee books to gather information about these little creatures and at the same time pollinate their nonfiction reading skills. Sprinkle in a few divergent thinking activities, compare and contrast nonfiction with poetry and fiction, and you will have a well-rounded unit worth buzzing about.

By modeling nonfiction reading skills and using small group practice sessions, the librarian can support classroom research without duplicating a large research project. Complementing nonfiction with fiction on the same topics allows readers to examine how authors use facts and figurative language to enrich content.

Using the reproducible on page 5, create an I Learned packet to use throughout the unit. Staple three to five of these pages together along with a blank cover page for students to illustrate. Use it for listing new information about bees and for commenting on the new research skills learned in the lessons. This meta-cognition helps students solidify newly learned skills.

**Narrative Nonfiction**

Narrative nonfiction books are written like a story and are generally read like fiction books, from cover to cover. Often they contain no table of contents or index and rarely use special test formatting. Reading one of these books at the beginning of the unit provides initial background information and introduces the class to a type of nonfiction not usually desired for specific research. The following titles offer slightly different perspectives about a bee’s story:

**Bees** by Rebecca Rissman (Raintree, 2013). Large pictures and rhyming print engage very young children as they learn about bees.

**What if There Were No Bees?** by Suzanne Slade (Picture Window Books, 2011)

This book focuses on the influence bees have on the grassland environment and the effects the absence of bees would have.

Before reading this book, ask students to brainstorm what they believe would happen if all bees disappeared. Using a two-column chart, list ideas in the left column. Read the book to find and list additional ideas to be written into the right column.

**Hive Detective** by Lorie Burns (Houghton Mifflin, 2010)

Describes the basics of bee keeping, honey making, and collecting. The author explains Colony Collapse Disorder and suggests possible causes, based on recent research. Back matter provides excellent references for further study using books, videos, and websites. Check Burns’ website, http://www.loreeburns.com/teachers?view=print_hive_detectives LoreeBurns.com, for additional resources.

**The Buzz on Bees** by Shelley Rotner and Anne Love Woodhull (Holiday House, 2010)

Discusses the importance of bees to agriculture and how scientists are searching for possible causes of the Colony Collapse Disorder.

**Honey in a Hive** by Anne Rockwell (HarperCollins, 2005)

Tells the story of how bees function in a hive to make honey and to propagate.

**Honey Makers** by Gail Gibbons (Morrow Junior Books, 1997)

Chronicles the life and work of bees and beekeepers. Good example of picture captions.
Life and Times of a Honey Bee by Charles Micucci (Ticknor & Fields, 1995)

Pictures and captions and text work well together to tell the honeybee story from birth to death. It includes an illustrated summary of bee products, bee history, and bee life.

Choose one of the books to read to the whole class, and stop occasionally to allow students to add facts in the I Learned packet. List additional questions that students have that were not answered in the book. Refer back to the questions as answers appear.

Nonfiction Reading Skills
Many standard nonfiction books contain a table of contents, glossary, and index and also use special text features. Generally, these books are not read from cover to cover; rather, they are used to extract specific information.

The activities and book suggestions in this section can be used with novice researchers to recognize nonfiction book formatting. Team with the classroom teacher or coordinate the library lessons to support classroom research units. The mini lessons can be used individually or as a unit of study. The more bee books you can gather, the more successful students will be in finding materials at their reading levels.

The book suggestions in the following lessons can be substituted with those in your collection. You can also search in the book list on page 6 for additional titles.

Continue using the I Learned packet to record new knowledge from each lesson. Upon completion of the unit, compile new knowledge and post on the school website or send an email to parents.

Using Pictures and Captions
Even primary students can explore factual information presented as pictures and captions, and intermediate grades can also benefit from reinforcements regarding the facts found in these elements of nonfiction books.

Display a picture from A Bee’s Life by Nancy Dickmann (Heinemann, 2010) and engage students in discussion about what they can learn from the picture. Supplement the discussion with questions about inferences they might make about the context, such as time of year, location of the bee, etc. Repeat this exercise using captions as the learning tool.

Place a stack of bee books at each table grouping. Each student receives three sticky notes to mark favorite pages as they browse through pictures and captions they find intriguing in one book. Provide time to share findings orally in small groups.

Write three new bee facts on the right side of the I Learned packet. On the left side write what was learned about reading pictures and captions in nonfiction books. This exercise can also be configured for a large group.

Identifying Topics and Decoding Special Text Features
How Bees Make Honey by Louise Spilsbury (Capstone, 2010)

With the class, examine chapter headings, subtopics, and typeface changes. Point out the difference in the print types and elicit ideas about how using special text features helps to find facts fast. Compare with other books to see if they have chapter headings that also use bold face print or change font styles. On the left side of the I Learned packet, students concentrate on explaining three changes in format and the purpose behind them.

Table of Contents
Using A Bee’s Life by Nancy Dickmann (Heinemann, 2010) display the table of contents and point out the chapter headings and page numbers. Ask the class to identify the page number of the chapter where they would find facts about queens, eggs, and workers.

Provide guided practice by placing a variety of bee books at table groupings and letting student pairs choose one book with a table of contents and one book without. Call out bee topics for students to find in both books. At the conclusion of the activity, ask the class to write a sentence in the I Learned packet telling how the table of contents made it easier to find the information.
Glossary

*Killer Bees* by Meish Goldish (Bearport, 2008) includes a glossary and uses boldface print to highlight the vocabulary words in the general text. Point out these special features and talk about how to use a glossary. Before the lesson, create bee vocabulary index cards for each group by writing the word on one side and leaving the other side blank. Provide guided practice by distributing one card to each student. (You may have to duplicate some of the words, but make sure each small group has three different words.)

Direct the class to work in small groups to search for definitions in two or three book glossaries. For each word, compare the definitions in the glossaries and combine them to produce a compiled definition. Students draw a picture to illustrate the word on the blank side of the card. Collect the words into a word file, or scan them into a slideshow presentation that can be emailed to parents.

Finding Key Words

When researching online, students can type an entire question and the search engine identifies the keywords and finds websites. But when using books, the skill of recognizing keywords becomes essential.

Start with student pairs writing two or three questions they still want to know about bees. Display several questions to use as an example. Ask the class to name the important keywords. Explain that some books may use synonyms for the keywords they identified. Brainstorm synonyms for the keywords in the example questions. Follow-up by writing in the *I Learned* packet about how researchers use keywords.

Index

The following activities provide practice using both keywords and indexes. Knowing how to read the punctuation in an index is a helpful skill when trying to find the largest amount of information about a topic. Choose the activities best suited to the ability levels of your students. Use the Bee Book Chart on page 7 to find bee books with either simple or more detailed indexes and gather multiple copies of these or similar books.

Explain that an index is made of keywords or topics in alphabetical order with page numbers detailing where to find that topic. Page numbers with commas between indicate that the topic is found only on that page. There may be a single sentence, single paragraph, or the entire page may pertain to that topic. Display the index page from *A Look Inside a Bee Hive* by Megan Peterson (Capstone, 2012) as an example of a simple index. Look for the topic, eggs, find the page numbers, turn to the pages, and skim each page to locate the word.

Page numbers with a dash between the numbers indicate that information is found on every page between, as well. This would probably be where the largest amount of information about that topic is located. Display the index page for *How Bees Make Honey*, by Louise Spilsbury (Capstone Press, 2010) to show a more detailed index. Choose the topic, nest, from the index (it contains both the comma between page numbers and a hyphen.) Search for the topic on the page or pages indicated. Elicit from students where the most facts were found and respond in the *I Learned* packet, detailing what they learned about reading and using an index.

Give each pair one nonfiction bee book that includes an index. Call out a topic and see how quickly the pairs can find the topic in the book, by using the index and skimming the page to find the word. If a topic can't be found in the book, ask the class for possible topic synonyms. (Suggested topics: cells, honey, larva, queen, worker bee, pollen) Repeat the activity with a nonfiction book with no index.

In a large group discussion, evaluate the merits of the two types of nonfiction books. Write responses in the *I Learned* packet.

To extend practice using keywords to unlock information, assign a question to small student groups. (These questions can come from those generated by the class.) Groups will need to identify the keywords, brainstorm synonyms, use the index to find the answers, and take notes. The notes can be put into bulleted form or written into a paragraph, and compiled with other groups into a class bee book or into a slideshow presentation.
• Possible questions:
  • How does a bee make honey?
  • How do bees take care of the young?
  • What do bees do in the winter?
  • Are all bees the same?

Facts Buzz in Fiction Books
Picture book authors often find ways to incorporate facts in entertaining ways. After students have had time to explore information about bees, send them on a search for facts hidden in stories.

Borrow or purchase multiple copies of These Bees Count (Whitman, 2012) and The Beeman (National Geographic, 2002). Divide the class into teams of three. Give half of the teams The Beeman book and the other half Bees Count. Give all Beeman groups the same color of sticky notes. Give different color note pads to the Bees Count groups. The teams read their book aloud and list facts—one fact per sticky note. Combine a Bees Count group with a Beeman group to develop a graphic organizer to compile and display facts.

Within these joint teams, students now pair up and choose one or two facts per pair.

Fact-check these authors by using available nonfiction books. First detect the keyword in each fact and use knowledge of nonfiction clues from previous activities to locate information. Put a gold star or a bee sticker on each confirmed fact. Save time for the class to reflect on their learning in the I Learned packet.

Buzz about Fiction
Bees can also be the subject of poems and fiction novels. Explore additional ways authors use facts to enhance their writing.

Honeybee by Naomi Shihab Nye
(Greenwillow, 2008)

For older students, use these poems and vignettes to demonstrate how metaphor enhances meaning. The writings in this book, loosely incorporating the honeybee theme, carry the reader through Nye’s thoughts about what is really important to living life.

Choose three or more poems or stories that include reference to honeybees. (e.g. Girls, Girls; Bees Were Better; Someone You Will Not Meet, et al.) After learning about the way bees communicate, their hierarchy in the hive, and work duties, identify how that knowledge enhances the meaning in each poem.

Regarding Bees by Kate Klise (Harcourt, 2007)
This story is told through letters and illustrations about a substitute teacher hired to teach by correspondence to prepare the class for the BEEs (an acronym for the yearly test of proficiency). A simple misunderstanding leads the teacher to believe she needs to teach about the insect bee instead. Wit and humor create a fun read.

Enjoy the book as a class read-aloud or collect copies for book clubs. Keep a literature log to record bee facts as well as other responses. Compare the book’s format to nonfiction books with print clues and discuss when these books are useful and why this author chose a fiction format.

Creativity Buzz
Warm up the creative side of the brain with some divergent thinking exercises. Then extend the exercise by constructing metaphors from the answers.

How are you like a bee?
How is school like a beehive?
How is honey like friendship?

Write a story from the point of view of a bee.

Extensions
To provide additional practice using these newly acquired research skills, let individuals choose another insect to study, take notes, and then use the factual information to create a fiction story.

Conclude these activities by asking students to create a graphic organizer that compares and contrasts the three types of books.

By the end of this unit, your library will be swarming with worker bees and filled with the excited buzz of conversation. As the “beeman” in the library, consider harvesting a little honey to sweeten the tongues of the bees in your hive. A little honey on crackers or bread, though sticky, will help celebrate a job well done.
## I Learned...

### About Bees

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### About Nonfiction Books

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### Questions to Consider

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Fiction and Nonfiction Bee Books


*Buzzy Bee Plays Hide-and-Seek*, by Lara Bergen and Ernesto Gill. Pickwick Press, 2010


*How Bees Make Honey*, by Emily C. Dawson. Amicus, 2011.


*The Queen, the Bear and the Bumblebee*, by Dini Petty and Rose Cowles. Beyond Words, 2000.


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