



The Friends of Flight 93 National Memorial is the official 501(C)3 non-profit that represents Flight 93 National Memorial in partnership with the National Park Service. The lessons and activities below were created for teachers and/or parents to teach children (or themselves!) about the role pollinators play in the world and about the pollinators themselves.

To help cultivate the living memorial landscape that honors the 40 passengers and crew member of Flight 93 every day, the Friends of Flight 93 have partnered with Powdermill Nature Reserve in setting up and maintaining 8 bee hives here at Flight 93 National Memorial. These 8 hives are home to over 500,000 bees. According to surveys done at the memorial in both 2016 and 2017, Flight 93 National Memorial is home to at least 63 different species of bees!

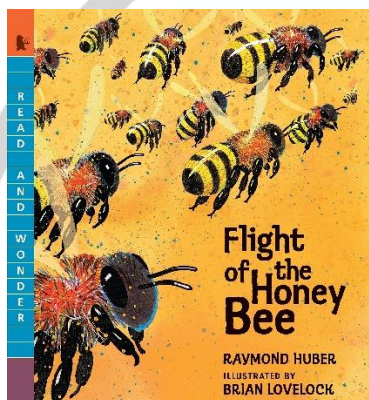
Bees play an extremely important role in balancing natural biodiversity. The symbiotic relationship between bees and all flowering plants is what balances our ecosystems. Flight 93 National memorial is a former surface coal mine. The bees help to restore the memorial grounds and the crash site to its natural state. When Flight 93 crashed on September 11, 2001, it burned nearly 40 acres of ground and trees. This area is now considered sacred ground and the final resting place of the 40 passengers and crew members. The Pollinator Project will help ensure that the natural habitat and ecosystems of the memorial are environmentally restored and will help create a living memorial landscape that will continue telling the story of Flight 93 for generations to come.

Several [passengers and crew members](#) on United Flight 93 were passionate about the environment and a handful were traveling for personal trips that involved the outdoors. Alan Beaven was an ardent environmental litigator who prosecuted Clean Water Act violators. Richard Guadagno spent 17 years in environmental protection as a member of the U.S. Fish & Wildlife Service. Christine Snyder was an arborist and worked for The Outdoor Circle, Hawaii's oldest nonprofit environmental group. Four passengers were traveling to Yosemite National Park (William Cashman, Patrick Driscoll, Donald & Jean Peterman) to hike and enjoy the beauty. Donald Greene was headed to Lake Tahoe for the same reasons. As the living memorial landscape at Flight 93 National Memorial is restored, we honor all 40 passengers and crew members. The Friends of Flight 93 National Memorial website provides a wealth of additional information, about the events on 9/11, the story of Flight 93, and Flight 93 National Memorial. We encourage you to explore this online learning tool for further education resources at <https://www.flight93friends.org/>.



Ages: PreK-Gr 2

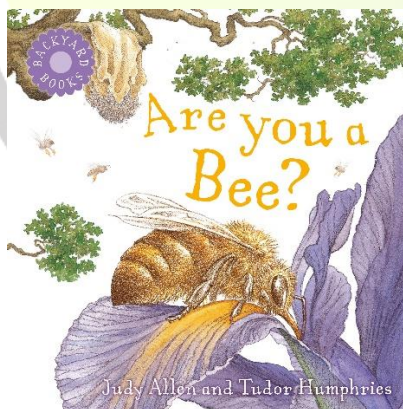
1. **Flight of the Honey Bee** by Raymond Huber



Follow the flight of a honey bee as she searches for nectar to sustain her hive and, along the way, pollinates flowers to produce seeds and fruits. A tiny honey bee emerges from the hive for the first time. Using sunlight, landmarks, and scents to remember the path, she goes in search of pollen and nectar to share with the thousands of other bees in her hive. She uses her powerful sense of smell to locate the flowers that sustain her, avoids birds that might eat her, and returns home to share her finds with her many sisters. Nature lovers and scientists-to-be are invited

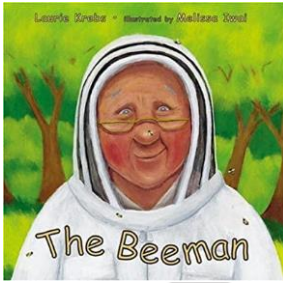
to explore the fascinating life of a honey bee. Back matter includes information about protecting bees and an index.

2. **Are You a Bee?** by Judy Allen



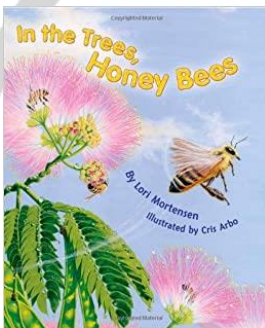
Backyard Books: Are You a Bee? by Judy Allen with illustrations by Tudor Humphries shows that--from the perspective of a honeybee--the backyard is a busy place. A young bee faces many challenges as it takes its place in the hive and joins in the work of the bee community.

3. **The Beeman** by Laurie Krebs



Told from the viewpoint of a child whose Grandpa is a beekeeper, this rhyming text offers an accessible and engaging introduction to the behavior of bees. You will learn where they live, how honey is made, what a beekeeper does, and more.

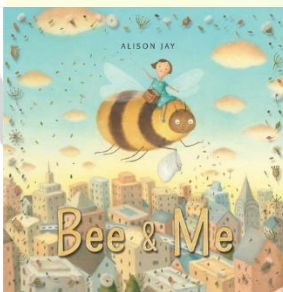
4. **In the Trees, Honey Bees!** by Lori Mortensen



Here is the ideal introduction for preschoolers and early elementary children to insects that are not only amazing but also critically important to humans. Inside-the-hive views of a wild colony of honey bees offer close-ups of the queen, the cells, even bee eggs. Simple verse will engage a young child, while sidebars with fascinating information satisfy the somewhat older child. Parents, teachers, and interested children will enjoy much more information about both wild and domestic hives in the

of the book. The detailed art shimmers with life, highlighting each hair or grain of pollen on the bees. A wild hive in a tree in her own backyard served as a model for the artist!

5. **Bee & Me** by Allison Jay



This wordless children's book about bees starts out with a scenario most kids experience: A bee flies through an open window, and a girl is terrified. She goes to swat it—but instead, she takes care of it. The girl and the bee become friends, and as the bee grows, they go on adventures together. Eventually, the bee becomes homesick and returns to the wild, but not before the girl has come to understand and love her pollinator friend. Together, they end up transforming the town – making it more

bee-friendly than ever. At the end of the book, suggestions on how young readers can befriend bees give you and your kids a starting point to help these beleaguered bees.

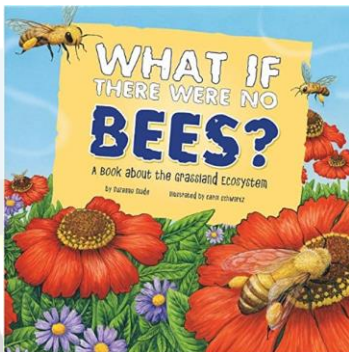
6. **Buzz, Bee!** by Jennifer Szymanski



This pre-reader book, published by National Geographic Kids, has super-simple sentences and concepts to convey the basics about bees. Straightforward pages lay out each stage of a honeybee's life, from collecting pollen and drinking nectar to storing honey and even doing the "waggle dance," bee communication to tell others in the hive where to find flowers! The best part of this children's book about bees, though, is the photography: Macro images of bees exquisitely show these insects in fine detail. That way, kids can really see what pollen looks like, imagine what the hairs on a honeybee might feel like and even witness how a honeybee's tongue slurps up nectar.

Ages: Gr 3-5

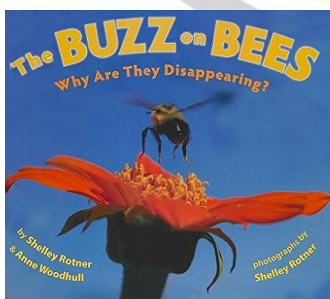
1. **What If There Were No Bees? A Book about the Grassland Ecosystem** by Suzanne Slade



Although this book focuses primarily on grassland ecosystems, such as the Great Plains of North America, it is exceptional in its approach to bee conservation. At first illustrations show a thriving, healthy grassland and farms full of pollinating bees. Then by using black silhouettes where bees and pollinated fruits once were, *What If There Were No Bees?* shows the answer to the question of its title. Strawberries, wildflowers, critters who eat honey and berries in the wild, and trucks full of farm fresh vegetables become black voids on the pages where bees have

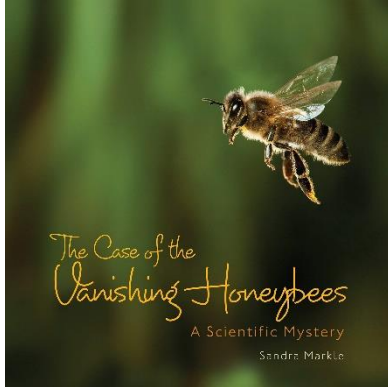
disappeared. This book also covers the food chain, provides a map of grassland locations around the world, and tips for helping grasslands (and bees) stay healthy. Of the three bee books in this category, this one would be the best choice for young children.

2. **The Buzz on Bees: Why Are They Disappearing?** by Shelley Rotner



This book is illustrated with photographs and follows professional beekeeper Dave Hackenberg through his experiences with CCD – which began in 2006. Rotner covers the rapid decline in honeybee numbers, why bees are needed, and provides photographic examples of the many foods we eat that would suffer without bees. In addition, she explains how bees pollinate the cotton we make our clothing of and provide food for grazing animals. Different kinds of bees, possible causes of CCD, and tips on what families can do to help bees are all included as well.

3. **The Case of the Vanishing Honeybees: A Scientific Mystery** by Sandra Markle



This book is a great resource for older children who wish to know more about the causes of CCD. Illustrated primarily by close-up photographs of bees and their hives, this bee book provides an in-depth look at mites, pesticides, and illnesses that hurt bees. Markle explains the traveling bees who pollinate almonds, peaches, and other crops year-round, and suggests that overwork may be another detriment to the health of the bee hives. As the title suggests, this bee book handles bees and the problem of CCD in a scientific manner and would be an excellent resource for classes or for children who need a resource for an individual project or paper.

4. **Turn This Book Into a Bee Hive!: And 19 Other Experiments and Activities That Explore the Amazing World of Bees** by Lynn Brunelle



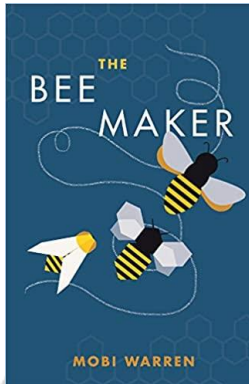
What a promise! Actually, promises. First, here's a book that teaches kids all about the fascinating world of bees. Second, fun exercises, activities, and illustrations engage the imagination and offer a deeper understanding of bee life and bee behavior. Third, by following a few simple steps including removing the book's cover and taping it together, readers can transform the book into an actual living home for backyard bees. Fourth, added all together, *Turn This Book Into a Beehive!* allows kids make a difference in the world—building a home where bees can thrive is one small but critical step in reversing the alarming trend of dwindling bee populations.

Turn This Book Into a Beehive! introduces kids to the amazing mason bee, a non-aggressive, non-stinging super-pollinator that does the work of over 100 honeybees. Mason bees usually live in hollow reeds or holes in wood, but here's how to make a home just for them: Tear out the perforated paper—each illustrated as a different room in a house—roll the sheets into tubes, enclose the tubes using the book's cover, and hang the structure outside. The bees will arrive, pack mud into the tubes, and begin pollinating all the plants in your backyard.

Twenty experiments and activities reveal even more about bees—how to smell like a bee, understand the role of flowers and pollen, learn how bees communicate with each other through “dance,” and more. It's the real buzz on bees, delivered in the most ingenious and interactive way.

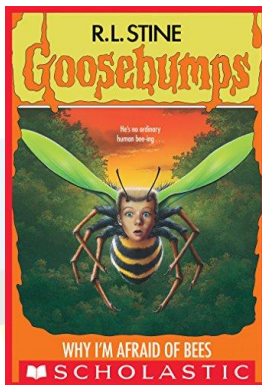
Ages: Gr. 6-12

1. **THE BEE MAKER** BY MOBI WARREN



In the year of 2036, honeybees are nearly extinct, and the world's crops are disappearing. Melissa's origami honeybees may be the key to saving them. Set in the present and the past, on a small island off the coast of Crete and in Texas Hill Country, this YA novel shows that young people can overcome adversity by realizing the strength within themselves.

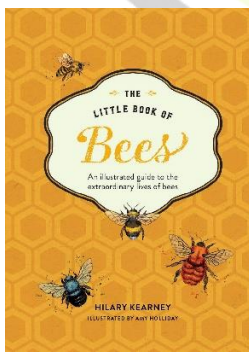
2. **WHY I'M AFRAID OF BEES** BY R.L. STINE



Have you ever imagined what it would be like to wake up as a bee? Well, Gary gets to live that **nightmare? dream?** experience when he expects to switch bodies with fellow classmate Barry but is instead turned into a bee.

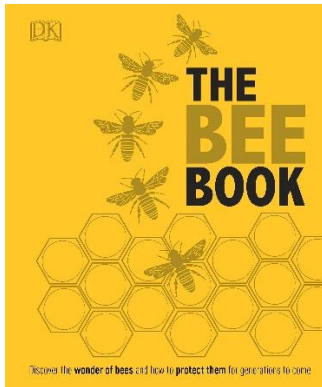
Ageless

1. **The Little Book of Bees: An Illustrated Guide to the Extraordinary Lives of Bees** by Hilary Kearney



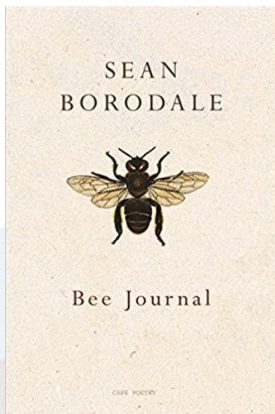
Bees continue to fascinate and charm us all – from novice gardeners and nature-lovers to dedicated environmentalists – and today, bees need our help more than ever. Discover the story of these incredible creatures, with *The Little Book of Bees*. Bees first appeared on Earth an incredible 130 million years ago. Since the time of the dinosaurs, evolution has taken our beloved bees on an incredible journey – and today, there are 20,000 species on the planet. *The Little Book of Bees* is a lovely, informative book of all things bee – from evolution and communication, to honey, beekeeping, and saving the bees.

2. **The Bee Book** by Emma Tennant



This is more of a reference book than a picture book, but curious readers and their parents can learn just about everything they wonder about bees. From delving into the different species (including honeybees, of course, but also solitary bees like mason bees) and attracting pollinators to how to raise bees and harvest their honey and wax, this book is bursting with fascinating info. The book uses a combination of illustrations, full-color photos (including a bunch of close-ups!) and infographics to explore the biology, chemistry and just plain wonder of bees.

3. **BEE JOURNAL** BY SEAN BORODALE



This original poetry collection is inspired by a beekeeping journal that follows a bee colony for one year. Live the cycle of life and death of nature through the eyes of a veiled observer with unusual intimacy full of wonder and revelation.