



***Bee A Friend to Pollinators* School Program Educator's Guide**

Dear Valued Educator,

The Bee Cause Project and **Foresters Financial** would like to help you *Bee A Friend to Pollinators* at your school campus this year. Our top priority is providing quality programming that is comprehensive and easily shared with your community. Read on to learn more about the program details and ways we will help you deliver each component with confidence.

Through this program, we help schools make small changes to improve pollinator habitats and promote even bigger changes in their communities while supporting pollinator literacy. The program is meant to provide the tools that schools need to (1) host an in-person Volunteer Work Day with the team from Foresters Financial, (2) install pollinator-friendly habitat spaces on campus, and (3) continue the pollinator-educational experience with bee-themed pollinator activity kits and literature for students. Collectively, these steps will increase awareness of the plight of pollinators and inspire students to become environmental stewards.

We've created a unique package of books, activities, materials, and suggestions for how to execute the **Volunteer Work Day** at your school. However, there is flexibility in how you execute the program based on your programming needs. Our intention is to provide support to ensure the greatest impact and value are achieved.

We would like to share some of our favorite video links, including some of our own, to inspire you in this pollinator journey.

- **The Critical Importance of Pollinators**
(<https://www.youtube.com/watch?v=6362aJNNt1s>)

- **The Bee Cause Digital Field Trip - Honey Harvest**
(<https://www.youtube.com/watch?v=OpiF5Jj-DTI&t=20s>)
- **Pollination: Trading Food for Fertilization**
(<https://www.youtube.com/watch?v=LiczM-w3V-U>)
- **What Are Pollinators?**
(<https://www.youtube.com/watch?v=fOMbAegJ1wQ>)

Our partners at **Foresters Financial** are committed to supporting your pollinator-education goals. Learn more about their organization and life insurance with a larger purpose at **foresters.com**.

If you would like more information about **The Bee Cause**, please check out our website at **thebeecause.org**.

Thank you for your enthusiasm and commitment to pollinator education. We look forward to you joining our network and hope you will be inspired to *Bee a Friend to Pollinators*. Please stay in touch with us on Facebook and Instagram at @thebeecause and @Foresters. We would love to see how you use this program in your community, tag us when applicable.

Bee Well,
The Bee Cause Team

Please let us know if you do not receive everything on your checklist. Email educator@thebeecause.org with any concerns.

Checklist for the Volunteer Work Day Materials:

- 15 Seed Ball Kits - each kit makes 100-120 seed balls
- 3 Chalet Bee House Kits including Leafcutter Bees (these will be shipped separately)
- 20 Burlap Bags - for Volunteers
- 20 Kraft Envelopes - for Volunteers

Checklist for the Educator's Materials:

- 1 *Bee a Friend to Pollinators* School Program Educator's Guide
- 2 *Bee a Friend to Pollinators* Lesson Plan & Campus Assessment
- 30 My Pollinator Journals - for Educator and Students
- 1 *Bee a Friend to Pollinators* Poster
- 1 *Save the Bees* Bracelet Activity Kit - 25 participants
- 1 *Food Doesn't Grow in Supermarkets* Activity Kit - 25 participants
- 1 Metal Bee Bath
- 1 Outdoor Sign - for display near your pollinator garden space
- Classroom Set of Pollinator-Friendly Books - Elementary Level Book Set or Middle/High School Level Book Set depending on your grade level

<p><u>Elementary Level Book Set</u></p> <ul style="list-style-type: none"> ● <i>What If There Were No Bees?</i> ● <i>Our School Garden</i> ● <i>The Thing About Bees: A Love Letter</i> ● <i>Honeybees and Frenemies</i> ● <i>Flower Talk</i> ● <i>The Bee Tree</i> ● <i>Farmer Will Allen and the Growing Table</i> ● <i>The Honey Makers</i> ● <i>Flight of the Honey Bee</i> ● <i>Bees: A Honeyed History</i> 	<p><u>Middle/High School Level Book Set</u></p> <ul style="list-style-type: none"> ● <i>Bees: A Honeyed History</i> ● <i>Honeybees and Frenemies</i> ● <i>The Beekeeper's Problem Solver</i> ● <i>Beekeeper's Lab</i> ● <i>QueenSpotting: Meet the Remarkable Queen Bee and Discover the Drama at the Heart of the Hive</i> ● <i>First Lessons in Beekeeping</i>
---	---

<u>Table Of Contents:</u>	
Program Details.....	Page 5
Volunteer Components.....	Page 7
Student Components.....	Page 11

Program Details

Your school is receiving materials to host a ***Bee A Friend to Pollinators Volunteer Work Day*** and provide in-school activities that support the *Bee A Friend to Pollinators* campus assessment and lesson plan. The program is intended to help you utilize the time and effort with the team from Foresters Financial, install pollinator-friendly habitat spaces on campus with your students, and extend the pollinator-educational experience with bee-themed activity kits and literature for students. The materials selected for this program are pollinator-focused, student-centered, and age-appropriate.

Resources included in the ***Bee A Friend To Pollinators School Program***:

I. INTRODUCTION

- **Welcome Video** by The Bee Cause Team -
(<https://www.youtube.com/watch?v=30B01fF6jNU&t=24s>)
- **The Bee Cause Splash Page** -
(<https://www.thebeecause.org/bee-a-friend-to-pollinators-library-program/>)
- **OER Commons** - encompassing the entire The Bee Cause catalog of curriculum, lesson plans, educator's guides, and more. A login invitation will be emailed directly to you.

II. VOLUNTEER COMPONENTS

- ***Bee a Friend to Pollinators*** lesson plan - including a Campus Pre-Assessment
- ***Bee a Friend to Pollinators*** companion video -
(<https://www.youtube.com/watch?v=cxkeo7R74vs&t=1s>)
- **Chalet Bee House Kits** - to be installed on campus, instructions provided
(<https://www.youtube.com/watch?v=OCctcOeNGVs>)
- **Seed Ball Activity Kits** - for volunteers to make, instructions provided
- **Volunteer Gifts** - for volunteers to take a few seed bombs for their own spaces along with information about The Bee Cause

III. STUDENT COMPONENTS

- ***Bee a Friend to Pollinators*** lesson plan - including a Pre and Post Campus Assessment
- ***Bee a Friend to Pollinators*** companion video -
(<https://www.youtube.com/watch?v=cxkeo7R74vs&t=1s>)
- ***Bee A Friend To Pollinators*** companion Factile Game - computer-based game (<https://www.playfactile.com/kffuwvpy1y>)

- ***Bee a Friend to Pollinators Poster*** - for display in your classroom to highlight the *Bee A Friend* principals
- ***My Pollinator Journal*** - for use with students
- ***Pollinator Focused Books*** - hand-selected to address many levels of learning
- ***Custom-Created Book Club Lesson Plans***
- ***Seed Balls*** - for students to use on-campus
- ***Bee A Friend to Pollinators Sign*** - campus display
- ***Sustainable Bee Bath***
- ***Save the Bees Bracelet Activity Kit*** - 25 participants
- ***Food Doesn't Grow in Supermarkets Activity Kit*** - 25 participants

Volunteer Components

Preparing for a Successful Volunteer Event

The Foresters Volunteers are excited to be on this pollinator journey with you! As part of their member benefits, Foresters-insured individuals and families have the unique opportunity to volunteer for specific community projects. This group of members has selected pollinator education as their passion project in your community.

Before the **Volunteer Event Day**, you should take some time to familiarize yourself with this document and the ***Bee A Friend To Pollinators*** Lesson Plan. The volunteers will also have access to both documents prior to the agreed-upon date. This document is designed to help facilitate a great experience for you and the volunteers as well as provide ways to involve your students once you are back in the classroom together. The following tips will also help you AND the volunteers have a successful and productive experience.

- You, or one of your staff, is the **Project Leader** for the day. Let all participants know that they can direct their questions to you.
- Set clear goals from the beginning so everyone knows where they should focus their talents. Match talents with tasks, much like you do with your students.
- Communicate clear expectations to the volunteers throughout the event to keep them in the loop.
- The volunteers are excited to help so feel free to engage in the excitement!
- Say thank you! We've provided a small thank you for the volunteers but saying it goes a long way.

Volunteer Tasks

By the end of your experience with the volunteers, you will want to be sure to facilitate the following tasks with respect to all participant's time and efforts:

- Introduce the ***Bee A Friend to Pollinators*** lesson concepts to the volunteers – provide a short and succinct explanation of the lesson
- Introduce the space you will be working to improve
- Mount the 3 Chalet Bee Houses in appropriate places on your campus.
- Create 100-120 Seed Balls per kit – approximately 1,800 Seed Balls in total

Bee A Friend To Pollinators

The ***Bee A Friend To Pollinators*** Lesson Plan will help guide you through the steps to access your campus space and outline what pollinators need to thrive. After you have read through the lesson plan, consider the space on your school campus that would benefit from adding pollinator food resources, water, and shelter. This may require a discussion with your administration to be sure that you are in agreement about the location for these improvements.

On the day of your Volunteer Event, we suggest that you begin by taking the group of volunteers to the space you've allocated for improvements. Keep in mind that you will facilitate the full scope of the lesson with your students, but you want your volunteers to understand the big picture. You should take a few minutes to educate them about why it is important to improve pollinator habitat. Feel free to outline the steps you plan to take with the materials included in this program.

All participants will be able to access the ***Bee A Friend To Pollinators*** Lesson Plan on our webpage at thebeecause.org. The ***Bee A Friend To Pollinators*** companion video, available on YouTube (<https://www.youtube.com/watch?v=cxkeo7R74vs>), is another excellent way to familiarize your volunteers with the purpose and ways of improving pollinator habitat.

Chalet Bee House Kits

The ***Chalet Bee House Kits*** provide all of the instructions that you will need to successfully mount the houses. You should place the houses in logical locations on your campus with regard to the students and other staff members. Choose an area for each house that allows for the coming and going of the insects to the house. Avoid placing the house too close to doorways or highly trafficked areas. Native bees do not swarm, typically do not sting, and are extremely docile insects, making them perfectly delightful neighbors on a school campus.

Native Bees are incredible pollinators. There are many native and solitary bees in North America that have evolved alongside the native plants in your area. They will happily visit thousands of blooms in your garden and increase flower productivity in any community. Native pollinators are a welcome addition to any garden.

When selecting a place to hang your Chalet Bee Houses, consider a few details. The bees prefer the house to be securely affixed rather than swinging. Attaching it to a fence, side of the building, or tree will keep the house from rocking in the wind. Native

bees also like to be out of the rain so think about placing it under the edge of an existing roof or under the canopy of a tree. These solitary bees also prefer to face cooler morning sun rather than hotter afternoon sun.

The Chalet Bee House is designed to be the perfect nesting spot for mason bees and leafcutter bees. Mason bees prefer to use moist, clayey mud for their nests. If none is available you can create a small muddy patch on the ground near the Chalet Bee House to assist in their work. This could be a job for your students rather than your volunteer team.

Leafcutter bees live up to their name and need to have access to a diverse area of different types of plant materials. They cut circles in thin leaves, roll the leaves like cigars, and tuck the rolls into their nests. Learn more about Mason Bees vs. Honey Bees -- both are great pollinators but have different methods.
(<https://www.youtube.com/watch?v=d9jWyGt2VHE&t=340s>)

Enjoy the ABCs of raising solitary, hole-nesting mason and leafcutter bees as well!
(<https://www.youtube.com/watch?v=YrJVeD0kctE>)

The Chalet Bee House does require a bit of maintenance, the instruction materials should cover how to maintain your bee house for years to come. Crownbee.com is a wonderful resource for information about maintaining a healthy bee house.

The Unboxing Crown Bees Chalet Kit Video is important to watch in order to understand what you will be working with.
(<https://www.youtube.com/watch?v=OCctcOeNGVs&t=135s>)

Seed Ball Activity Kit

Just like all living creatures, pollinators need food and flowers to get the job done! Pollinators use nectar and pollen from flowers as their main food and energy source. Depending on your area there may be an abundance of wildflowers, landscape flowers, crops or trees, and shrubs. Bees will fly about 3 miles from their hive to find their nectar and pollen source.

Seed balls are an easy and fun way to create more wildflower spaces for pollinators on your campus. Even if your campus does not have a designated pollinator garden, this activity will allow you to utilize any area to create a bee meadow.

Full instructions and seed identification are located inside the Seed Ball Kit.

Tips for Getting Started:

- The kit provided will create between 100 and 120 seed balls.
- This is a great outdoor activity.
- Participants may be tempted to deviate from instructions and add lots of seeds, but seeds need a certain amount of space to germinate properly.
- Small seed balls grow best, less than ½ “ in diameter is the recommendation.
- The Seed Ball kit you’ve received is specific to the region your state is located within.
- Seed Balls do need to air dry for approximately 24 hours and then need to be stored in a dry place until you are ready to sow.
- The following website provides tips for working with Seed Ball Matrix Material. (<https://seed-balls.com/matrix>)
- If you would like to create more seed ball activities, visit our website at [thebeecause.org](https://www.thebeecause.org). **My Pollinator Journal** will provide our homemade seed ball recipe and many other suggestions for continued pollinator education. (<https://www.thebeecause.org/2-support-materials/my-pollinator-journal/>)

Thank You Gift for Volunteers

The Bee Cause has provided a small thank you gift for the Foresters Volunteer Team. Their time and effort are most appreciated! We also hope that by participating in this program, the volunteers will also be inspired to *Bee A Friend To Pollinators* in their own backyards.

The Kraft envelope includes information about The Bee Cause Project and an Adopt A Bee Certificate. We ask that you encourage the volunteers to take a few of the Seed Balls they have created home with them in the burlap bag provided.

Student Components

Each of the following components of the program is designed to be used with your students, in-class **after** the Volunteer Event Day.

Bee A Friend to Pollinators

At this point you are familiar with the lesson plan and how best to work with your students to help them complete the lesson. The *Bee A Friend* lesson plan is found on our website and included in your documents envelope. The companion video can be shared with the students before the lesson. The Factile Game should be played after completing the lesson and watching the video.

- ***Bee a Friend to Pollinators*** Lesson
<https://www.thebeecause.org/wp-content/uploads/2020/04/bee-a-friend-to-pollinators-lesson-plan-with-poster.pdf>
- ***Bee a Friend to Pollinators*** companion video -
<https://www.youtube.com/watch?v=cxkeo7R74vs&t=1s>
- ***Bee A Friend To Pollinators*** companion Factile Game - computer-based game <https://www.playfactile.com/kffuwvpy1y>

My Pollinator Journal

This journal was created to provide background information about the unique relationship between flowers and pollinators, as well as provide suggestions for interacting with pollinators in your community. You will find lots of links to videos, activities for students of all ages, and more information about sowing your own wildflower garden. The Native Bee House Observation Log pages encourage your students to spend time with the newest additions to your school campus and record what they observe.

Pollinator-Focused Books with Lesson Plans

The book titles we've included in this program are some of our favorites. We've covered a variety of ages of interest, reading abilities, and genres with our Book Club Challenge Lessons. Please use the lessons as a resource for hosting a book club, for read-aloud experiences, or simply add them to your class library.

All of our educational resources are free, downloadable, printable, and shareable at The Bee Cause (thebeecause.org/resources) as well as our OER Commons Group (oercommons.org/groups/the-bee-cause-project/5505/).

- ***What if There Were No Bees*** by Suzanne Buckingham Slade
https://www.thebeecause.org/wp-content/uploads/2021/08/bee_cause_book_club_what_if_there_were_no_bees-1.pdf
- ***Our School Garden*** by Rick Swann
https://www.thebeecause.org/wp-content/uploads/2021/10/bee_cause_book_club_our_school_garden-1.pdf
- ***The Thing About Bees: A Love Letter*** by Shabazz Larkin
https://www.thebeecause.org/wp-content/uploads/2021/02/bee_cause_book_club_the_thing_about_bees.pdf
- ***Honeybees and Frenemies*** by Krisi Wientge
https://www.thebeecause.org/wp-content/uploads/2021/01/bee_cause_book_club_honeybees_and_frenemies.pdf
- ***Flower Talk: How Plants Use Color to Communicate*** by Sara Levine
https://www.thebeecause.org/wp-content/uploads/2021/07/bee_cause_book_club_flower_talk-1-1.pdf
- ***The Bee Tree*** by Patricia Polacco
https://www.thebeecause.org/wp-content/uploads/2021/01/bee_cause_book_club_the_bee_tree.pdf
- ***Farmer Will Allen and The Growing Table*** by Jacqueline Briggs Martin
https://www.thebeecause.org/wp-content/uploads/2021/01/bee_cause_book_club_farmer_allen.pdf
- ***The Honey Makers*** by Gail Gibbons
https://www.thebeecause.org/wp-content/uploads/2021/01/bee_cause_book_club_the_honey_makers.pdf
- ***Flight of the Honey Bee*** by Raymond Huber
https://www.thebeecause.org/wp-content/uploads/2021/01/bee_cause_book_club_flight_of_the_honey_bee.pdf

Seed Balls + Sustainable Bee Bath

The seed balls, sustainable bee bath, and chalet bee house are all components that should be used to improve pollinator habitats in the location you and your students have selected. The *Bee A Friend to Pollinators* outdoor sign can be displayed in the pollinators garden space or near the front of your school to teach others about this valuable program.

Activity Kits

The ***Save the Bees Bracelet*** activity is a great culminating activity for your students as they have gained new knowledge about the needs of bees and other pollinators. The ***Food Doesn't Grow in Supermarkets*** activity is designed to teach students about Food Systems. The students will have the opportunity to learn how honey gets from the hive to the grocery store. The kit provides honey straws for 25 students to taste-test four distinctly different types of honey from different parts of the United States.