# How to be a community scientist

Professional scientists can't be everywhere all the time. You can help them collect research data by participating in a community science program. By documenting where you see insects, animals, and plants, you can help scientists understand how well ecosystems are working. The Great Sunflower Project and iNaturalist are two programs that encourage people to submit their findings online.



**Naturalist** 

- The creators of The Great Sunflower Project invite people to add information about pollinator observations to a national database.
- Take a photo of a bee (or any insect, animal, or plant) and upload it to iNaturalist. When you do this, you are adding your data to a global database.

## **Try This**



Bees are not the only pollinators. Butterflies, moths, birds, and other types of wildlife also pollinate flowers. If you observe a species that you are curious about, try to identify it by downloading the app Seek by iNaturalist. It will identify most species from a simple photo.



# "BEE" A SCIENTIST!

Bees play a crucial role in ecosystems by pollinating plants. When bees land on blooms, pollen grains adhere to hairs on their bodies. They spread pollen from flower to flower and help plants produce seeds that can germinate. Studying this process is important to scientists because they want to understand how to help bees thrive. You can contribute to scientific research by observing bees. Learn how to get started using this Bee Quest.



# **BEE QUEST**

Find some patches of flowers and sit next to them. Practice being a scientist by observing the bees that visit the flowers. Try to identify the bees using the photos below. Count how many bees of each species you see by making tally marks below.

#### **HONEY BEE**

Honey bees make honey and preserve it in hives. In the wild, they build hives in hollow trees or crevices in rocks. At Lewis Ginter Botanical Garden, we have hives located behind the Conservatory. Stroll over and take a peek.

• Make tally marks to count how many honey bees you see on flowers.





#### **SWEAT BEE**

There are many species of sweat bees, but all of them are very small, and none of them are aggressive. However, you may have to shoo a few away because they are attracted to the moisture and salt of perspiration.

 Make tally marks to count how many sweat bees you see on flowers.

#### **BUMBLE BEE**

Bumble bees build hives in the ground or in bunches of dry grass. In early spring, you may spot queens who have emerged from hibernation. They will be feeding to gain energy to lay eggs. By early summer, their first broods are buzzing around.

 Make tally marks to count how many bumble bees you see on flowers.





## **CARPENTER BEE**

Carpenter bees have shiny, black abdomens, that distinguish them from bumble bees. Although the two species are different, they both buzz pollinate. This means they vibrate flowers until pollen is released. Tomatoes can only be pollinated this way.

 Make tally marks to count how many carpenter bees you see on flowers.