

# BAILEY THE BEE



IOWA STATE UNIVERSITY  
Extension and Outreach





@ISUIPM



IPM.IASTATE.EDU



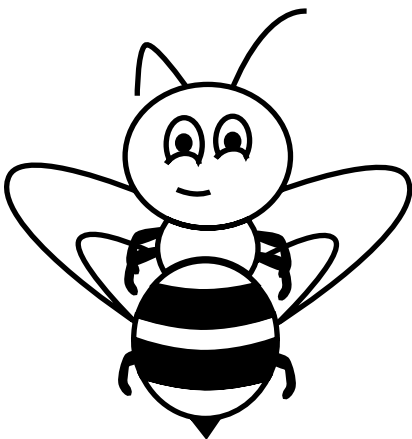
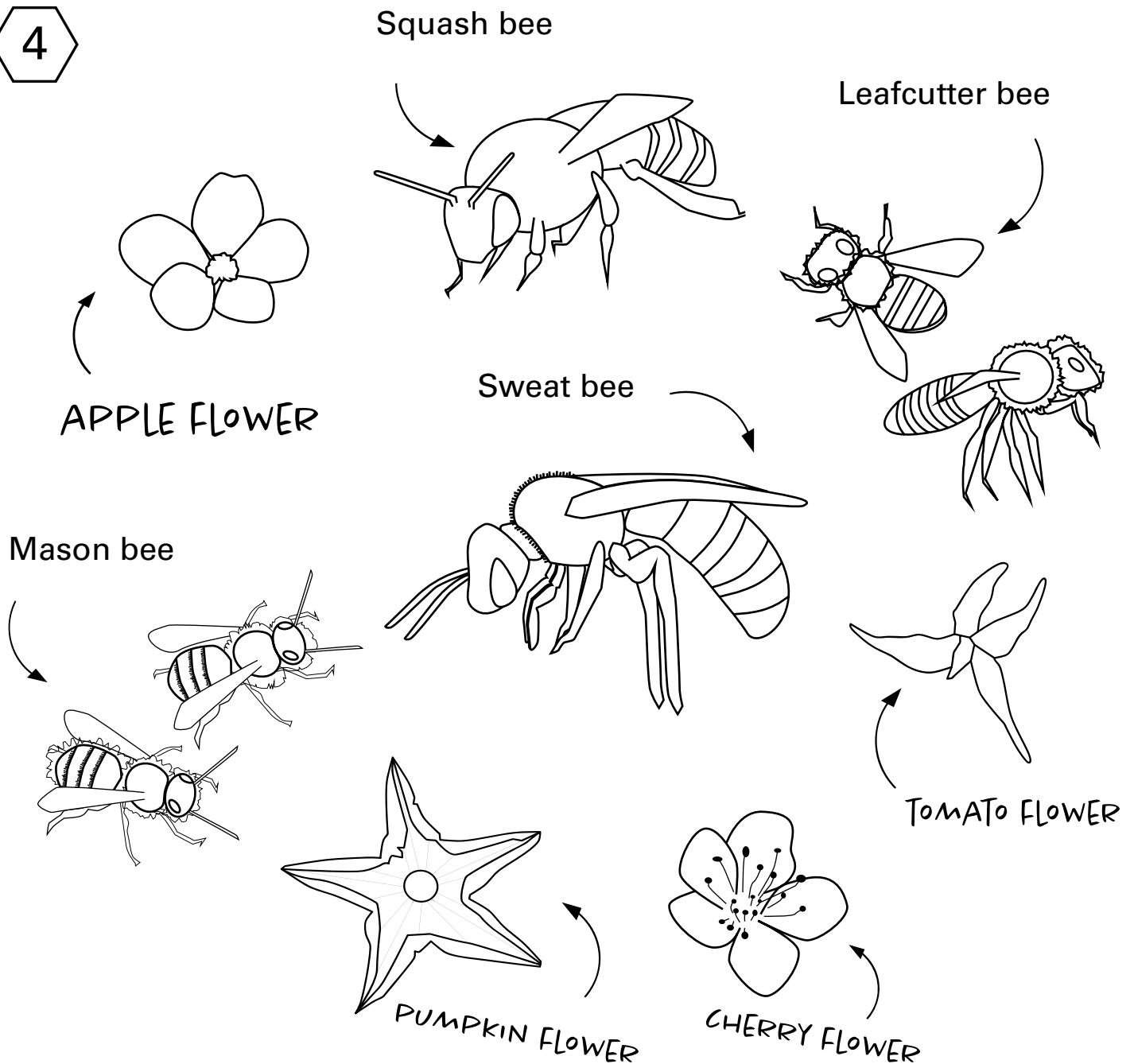
@ISU\_IPM

Written 2020 by Carli Erickson and Emily Poss.

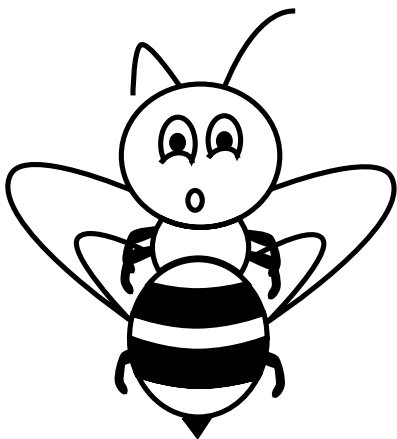
In accordance with Federal law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, disability, and reprisal or retaliation for prior civil rights activity. (Not all prohibited bases apply to all programs.) Program information may be made available in languages other than English. Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, and American Sign Language) should contact the responsible State or local Agency that administers the program or USDA's TARGET Center at 202-720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at 800-877-8339. To file a program discrimination complaint, a complainant should complete a Form AD-3027, USDA Program Discrimination Complaint Form, which can be obtained online at <https://www.ocio.usda.gov/document/ad-3027>, from any USDA office, by calling 866-632-9992, or by writing a letter addressed to USDA. The letter must contain the complainant's name, address, telephone number, and a written description of the alleged discriminatory action in sufficient detail to inform the Assistant Secretary for Civil Rights (ASCR) about the nature and date of an alleged civil rights violation. The completed AD-3027 form or letter must be submitted to USDA by: (1) Mail: U.S. Department of Agriculture Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW Washington, D.C. 20250-9410; or (2) Fax: 833-256-1665 or 202-690-7442; or (3) Email: [program.intake@usda.gov](mailto:program.intake@usda.gov). This institution is an equal opportunity provider.

For the full non-discrimination statement or accommodation inquiries, go to [www.extension.iastate.edu/diversity/ext](http://www.extension.iastate.edu/diversity/ext).

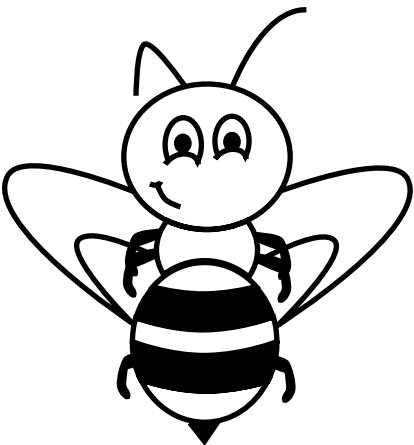
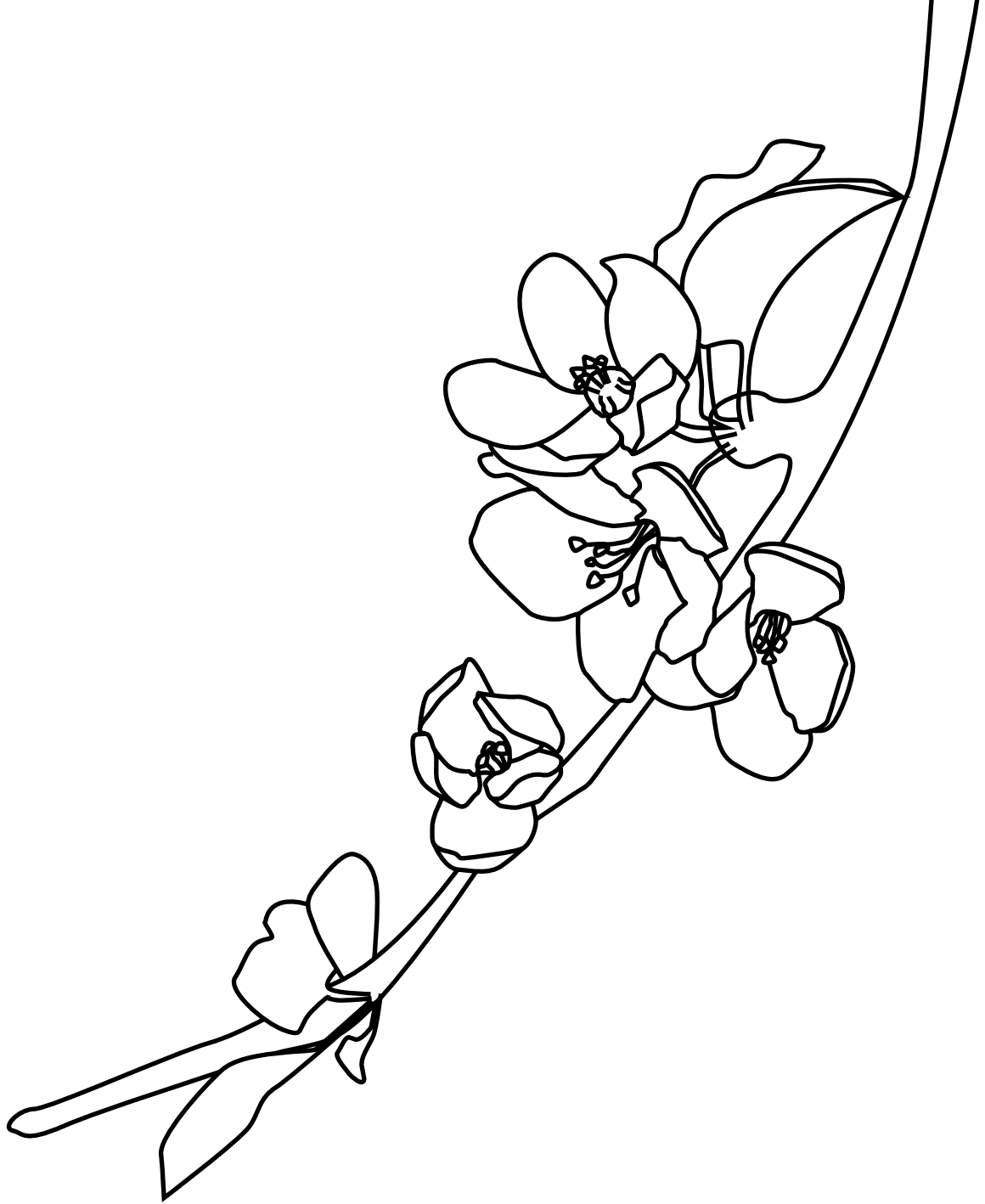




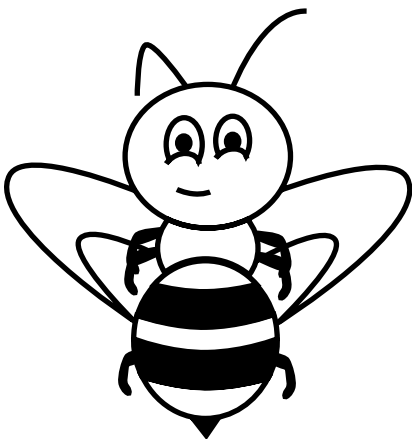
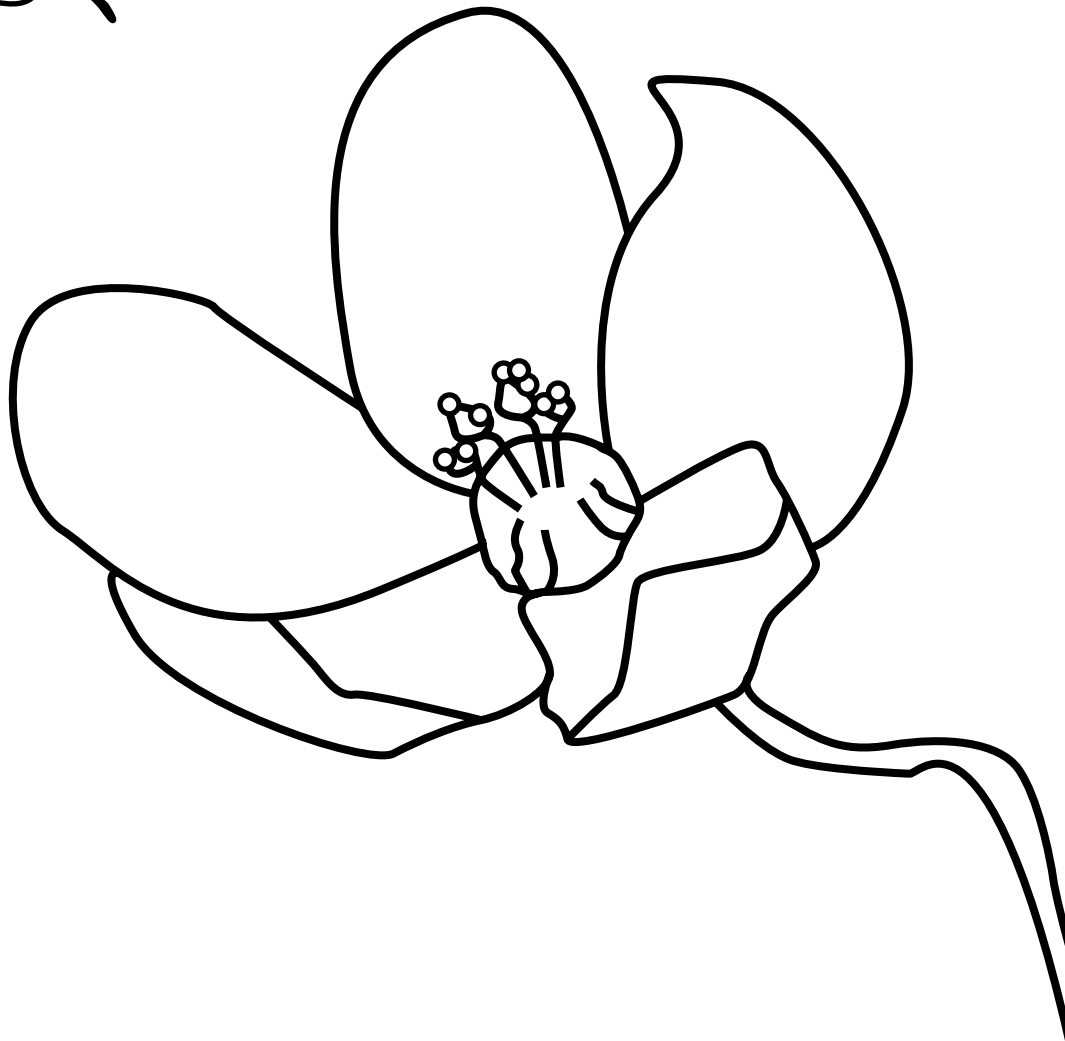
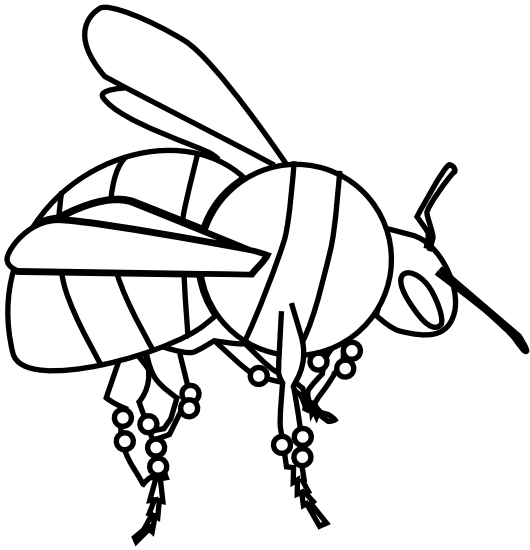
Hi! My name is Bailey the Bumble Bee. I live here on Farmer Ben's farm. I am a **native** bee which means that I have always lived here in North America. Some of my other native bee friends are the squash bee, sweat bee, leafcutter bee, and the mason bee. We all like to **pollinate** flowers here on the farm. As a bumble bee some of my favorite flowers include apple, cherry, tomato and pumpkin flowers.



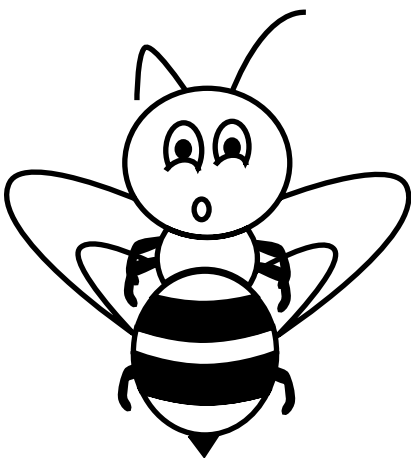
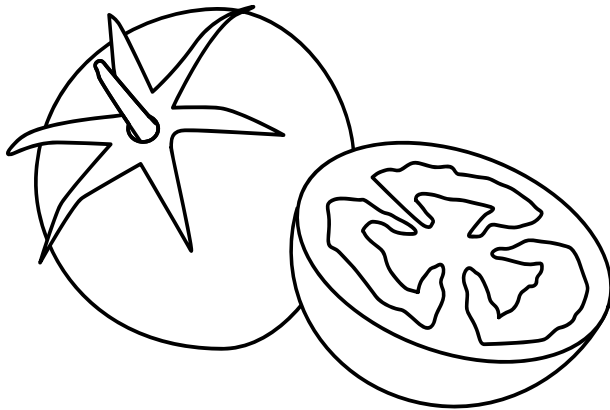
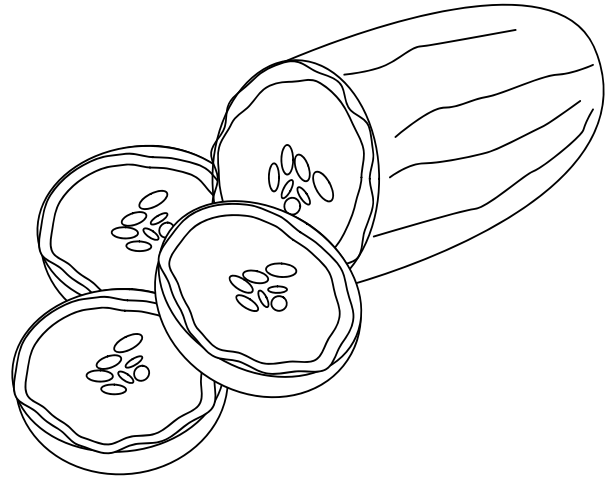
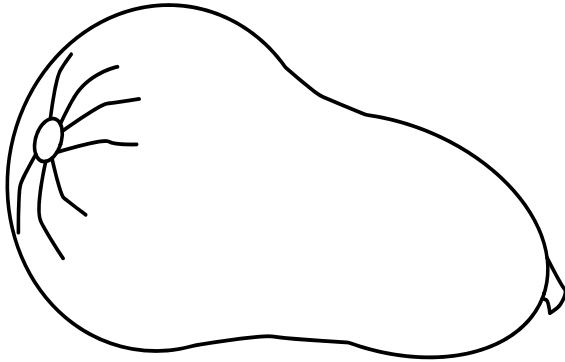
When the seasons change from winter to spring, bumble bees, and mason bees come out from their nests. In order to get energy to fly, bees need to collect **pollen** and **nectar** from flowers.



My favorite place to get food in the spring is from the apple flowers on the trees in the orchard. When I visit an apple flower, I drink nectar from the flower and collect pollen on small hairs on my body.

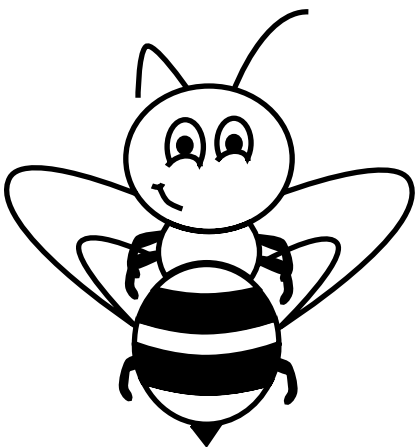
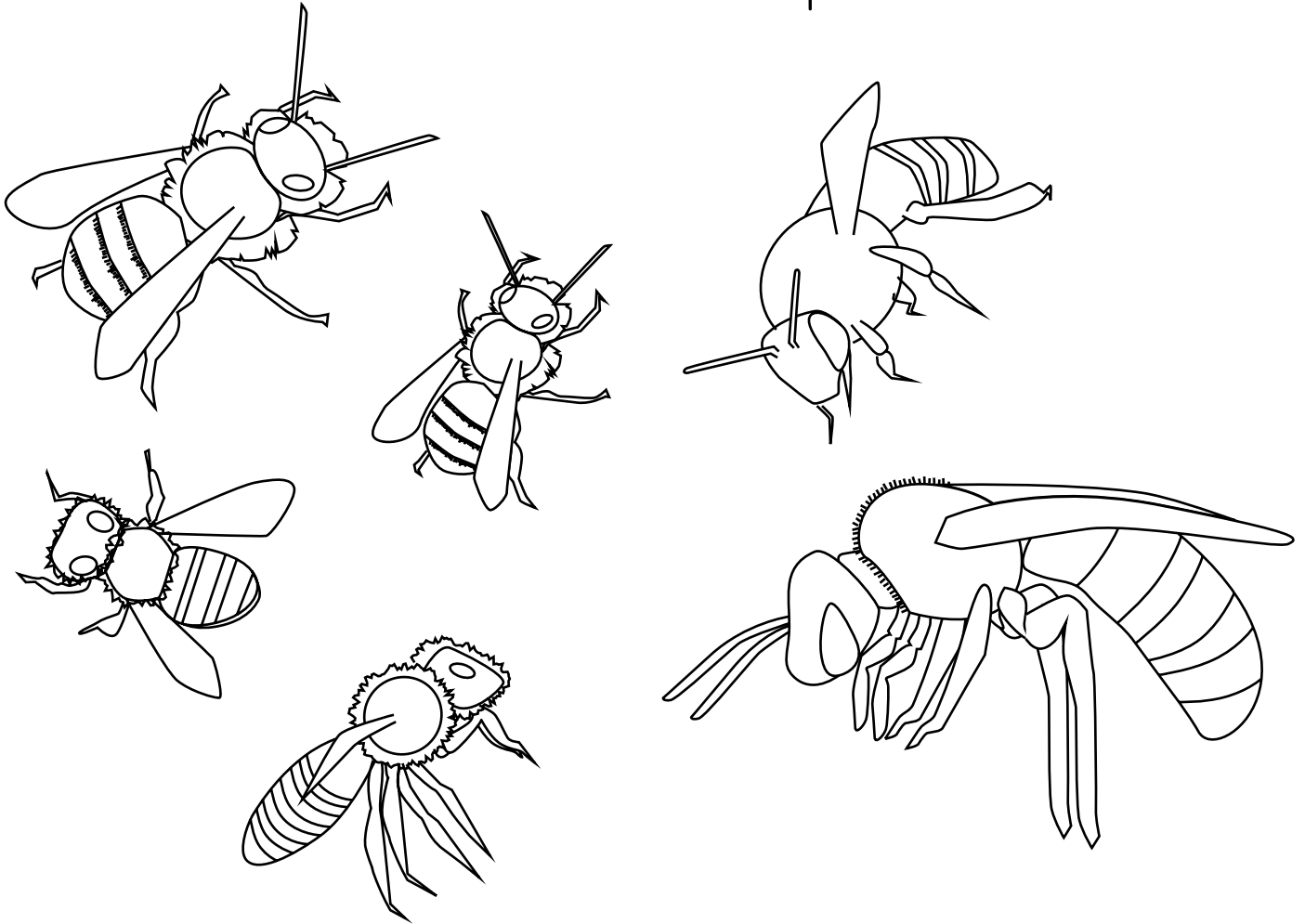
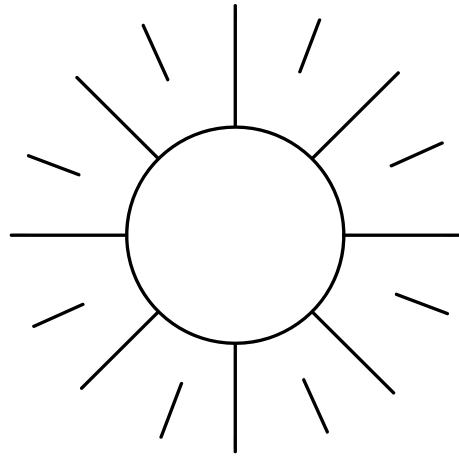


Before I leave the flower, some of the pollen from my body sticks to the center of the flower. This is how a plant becomes pollinated. Now that I have visited that flower it will begin to turn into an apple fruit.

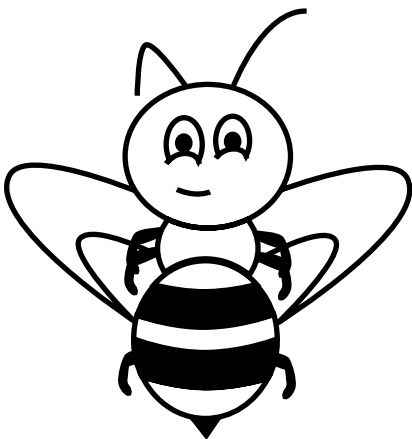
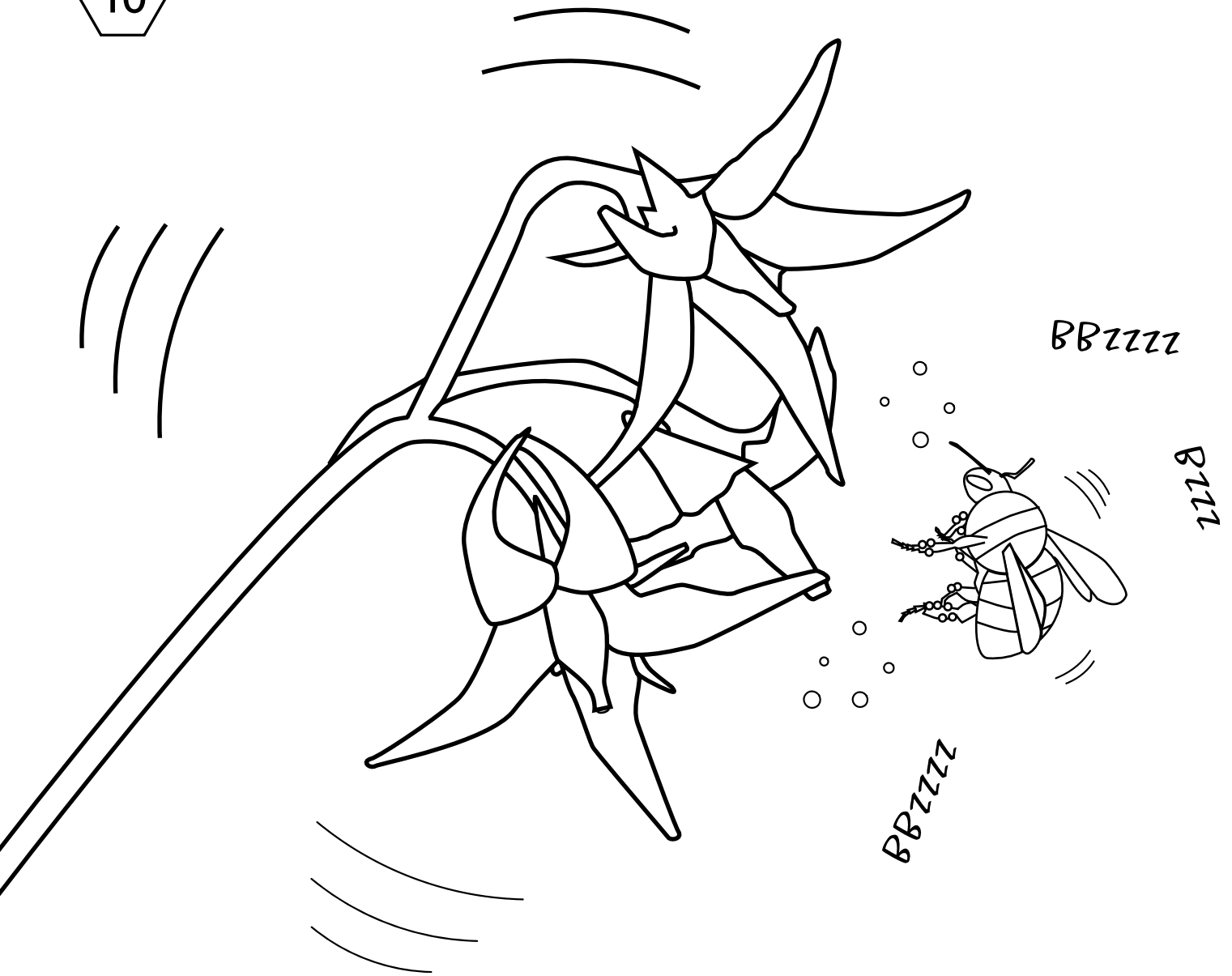


Farmer Ben loves when he has different bees on his farm. The more bees on the farm, the more fruits and vegetables Farmer Ben has to sell. When I return to my underground nest I will use the pollen and nectar I have gathered to feed the baby bumblebees. Next year, when the babies are grown up, they will pollinate flowers just like me.

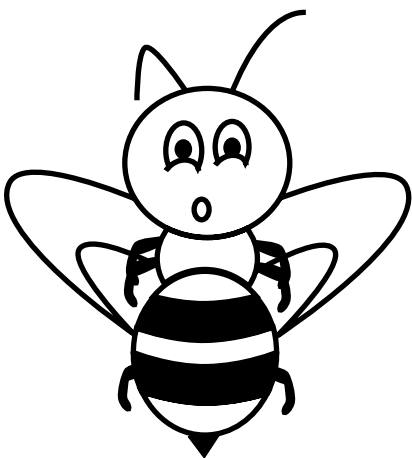




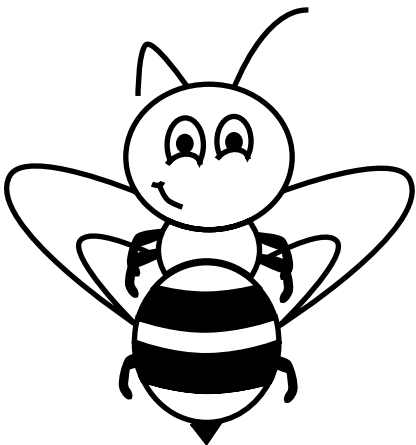
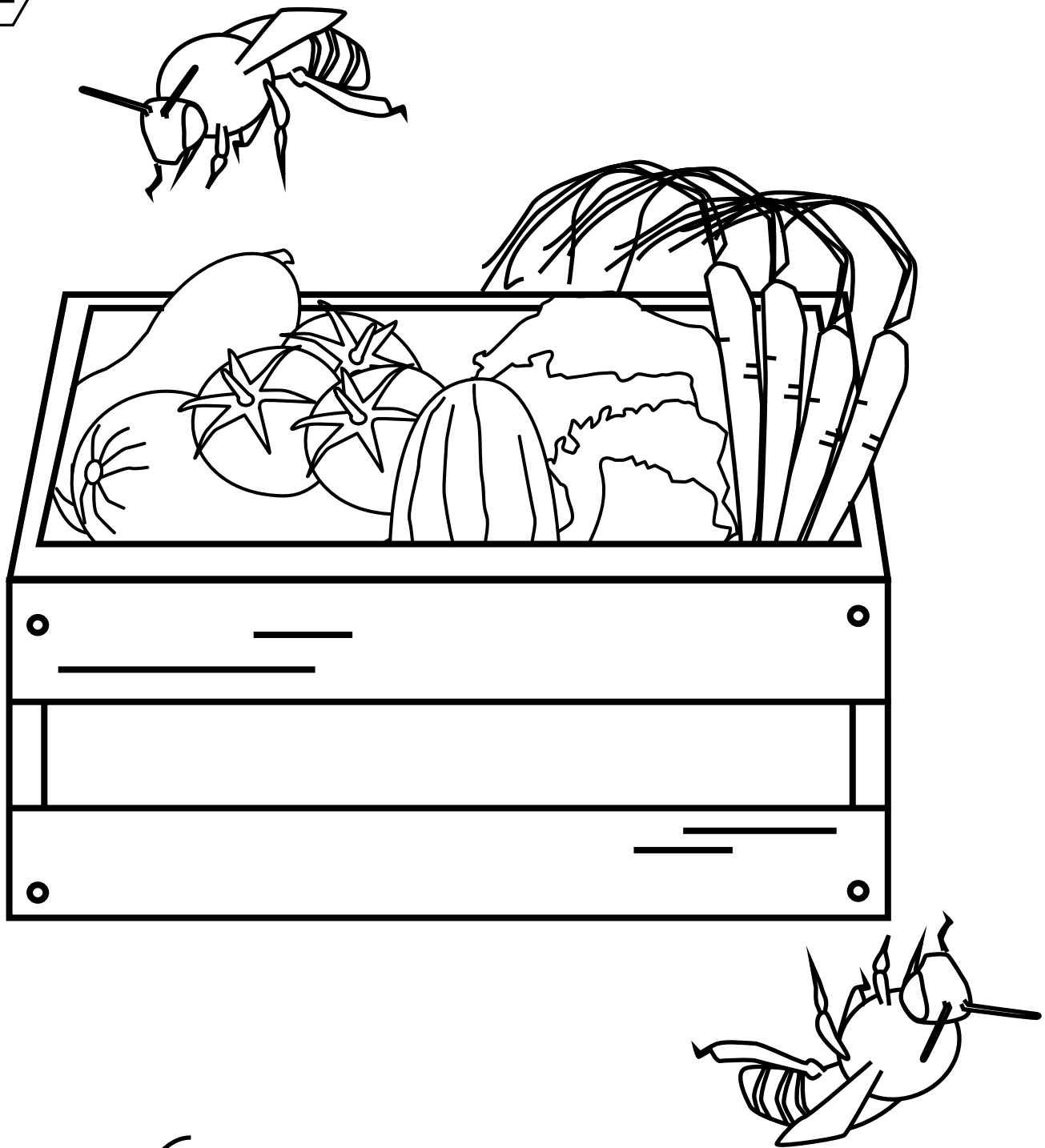
The seasons are changing again and the mason bees have lived their life cycle. Spring has turned to summer and the bumble bees are now joined by the squash bees, sweat bees, and the leafcutter bees. There are also some new **crops** growing here on the farm.



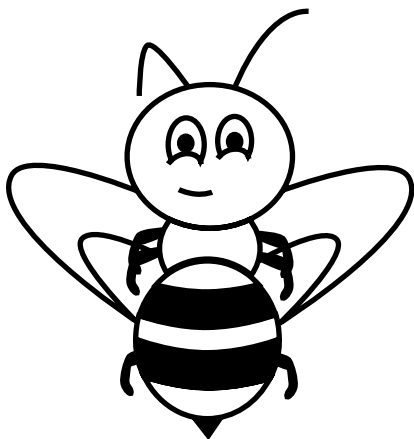
Farmer Ben planted some tomatoes and pumpkins this year. I am very excited about the tomato plants because I am the only bee that can pollinate them. When I visit the plant, I hold onto the flower and “buzz” using my wing muscles. This shakes the flower and the pollen falls out. The buzzing sound actually comes from my wings! I flap my wings really fast and this makes a buzzing sound. Buzzzzzz!



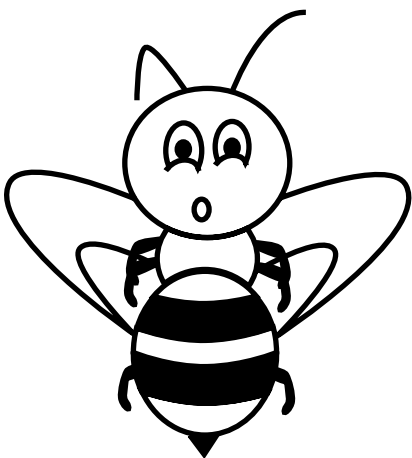
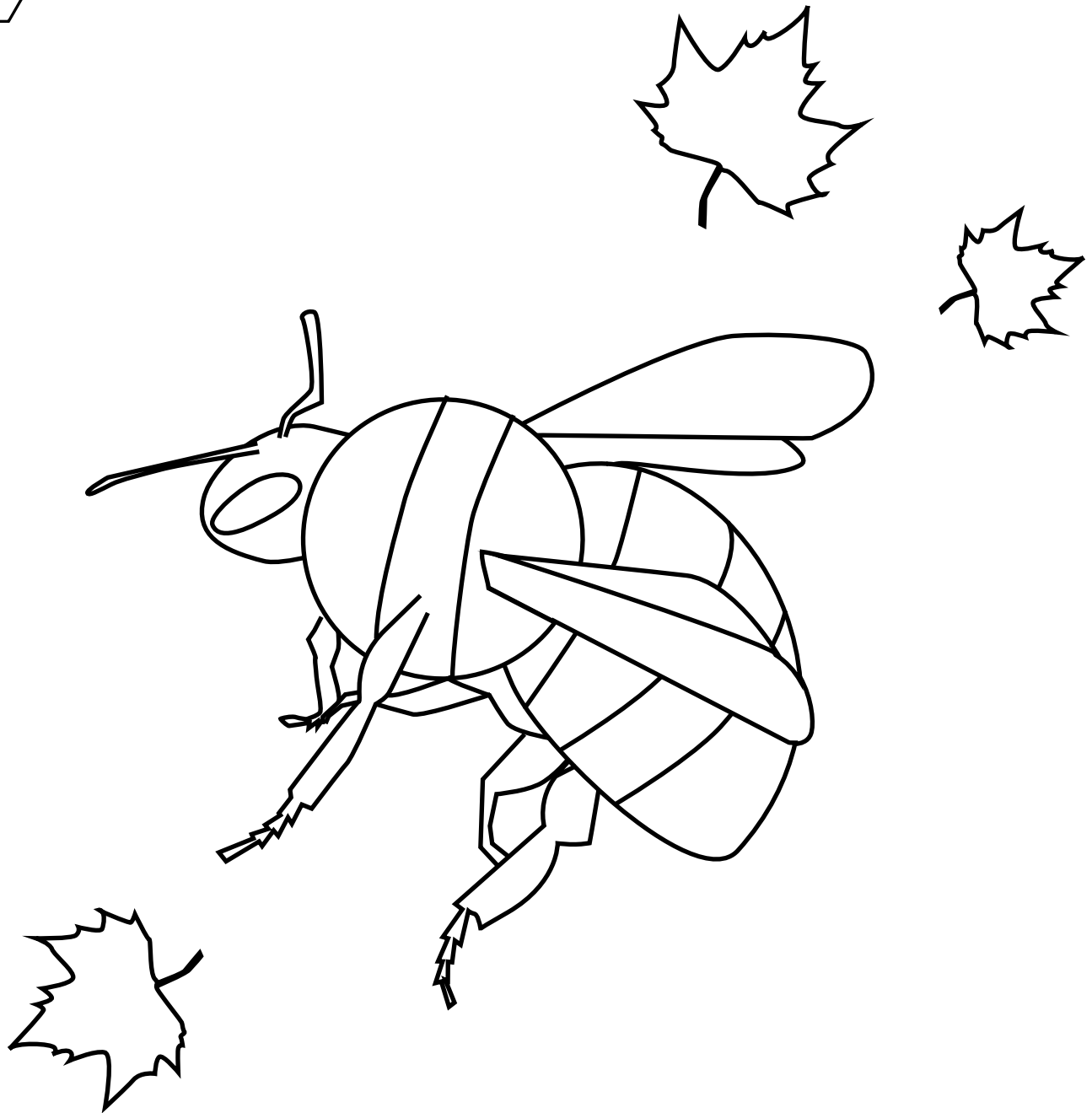
The squash bee is a special bee too. The squash bee only likes to collect pollen and nectar from plants that are in the squash family. Pumpkin flowers are the perfect food for the squash bees.



Without different types of bees on the farm some of the plants may never get pollinated, which means that there would not be as many fruits and vegetables. At the end of the summer, Farmer Ben is able to **harvest** all of the crops pollinated by bees.



If there aren't enough flowers then bees can't find enough food. It is very important to plant flowers and create **habitat** for the bees where you live. Bees create food for humans, and humans must work together to help create food sources for bees.



Summer is changing to fall and all of the bees are ending their life cycles, but I know that next year all of my babies will come out in the spring and pollinate the new flowers on the farm.



# **Vocabulary**

## **Native**

A living thing is native if it has always lived in that place.

## **Pollinate**

Pollen needs to be moved from flower to flower. When a flower is pollinated, it makes seeds and fruits.

## **Pollen**

Looks like powder inside a flower. The flower makes it. It needs to move from flower to flower. It is food for bees.

## **Nectar**

Sugary water inside the flower. Flowers make it to get bees to visit them.



## **Crops**

Plants that we grow for food.

## **Harvest**

Picking and gathering fruits and vegetables from the crops we grow.

## **Habitat**

A place with the right food and places to live.

Story based on the 2019 Ag Innovators Experience Native Bee  
Challenge Teen Facilitators Guide from National 4-H Council, Bayer,  
and Iowa State University Extension and Outreach



